Children’s Perspectives on the First Year of School: Adjusting to the Personal, Interpersonal and Institutional Aspects of School

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February 2008

VOLUME I

A thesis submitted to Charles Sturt University in fulfilment of the requirements for the degree of Doctor of Philosophy
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I, Elizabeth Murray, hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person nor material which to a substantial extent has been accepted for the award of any other degree or diploma at Charles Sturt University or any other educational institution, except where due acknowledgment is made in the thesis. Any contribution made to the research by colleagues with whom I have worked at Charles Sturt University or elsewhere during my candidature is fully acknowledged.

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Signature .......................... 31st March, 2008

* Subject to confidentiality provisions as approved by the University
ACKNOWLEDGEMENTS

I wish to express my wholehearted gratitude to my principal supervisor Dr Linda Harrison, for her extensive support, guidance and encouragement during both my Honours degree and Doctor of Philosophy degree. Linda has co-authored a number of journal articles and conference presentations with me over the last eight years (see Appendix) and worked closely with me on the development of the Pictorial Measure of School Stress and Wellbeing. I am very proud to be her student and thank her greatly for her professional supervision and friendship.

I would also like to thank my co-supervisors Dr Richard Taffe and Dr Kay Owens who also provided support during the planning, analysis and writing stages of my thesis.

My appreciation goes to Dr Gary Resnick for his assistance in developing the coding system for the Pictorial Measure of School Stress.

I would like to thank Amanda Hagarty for her assistance with the drawing of the scenarios in the Pictorial Measure of School Stress and Wellbeing.

Special thanks also goes to my family, Mum, Dad, Cassie and Ben, who have encouraged and supported me throughout the years of undertaking my degree.
ABSTRACT

This research focuses on children’s adjustment to the personal, interpersonal and institutional aspects of the first year of school. Children’s adjustment to school has been described as a developmental transition (Belsky & MacKinnon, 1994) therefore an ecological approach was drawn on to place children at the centre of the adjustment process, and to develop a model of child adjustment that supported the design and methodology of this study.

The first aim of this study was to examine children’s social and emotional adjustment to school over their first year. To achieve this aim, a new measure was developed to elicit children’s feelings about school scenarios, as well as their feelings about the teacher, and their strategies for coping in stressful and non-stressful situations. Results from interpretive and descriptive analyses of individual children’s responses on this measure indicated that between 8% and 56% of children experienced feelings of stress, anxiety and negativity towards one or more aspects of school at the beginning of the year, with this range of percentages increasing to between 6% and 83% of children at the end of the year. In particular, Going to the toilet by yourself and Watching other children play in the sandpit, were the most stressful scenarios for children at the beginning and end of the school year. Over time, children’s reasons for their negative feelings about school situations focused more on interpersonal relationships, particularly those with peers, than on personal or school-related factors, suggesting that children’s experience of stress in their first year of school was linked to social and behavioural expectations of school.

The second aim of this study was to develop a theoretical model of child adjustment which could be used to examine the change in children’s perspectives of school over time. Teacher and parent perspectives of child adjustment were also drawn on in testing this model. Results from testing the process model of child adjustment showed that children’s socio-emotional adjustment at the end of the school year was predicted by children’s feelings about school situations as well as their relationship with the teacher, but not by child characteristics such as age, gender and language ability. These results support previous research identifying the importance of developing positive teacher-child relationships early in the school year (Birch & Ladd, 1997; Pianta & Steinberg, 1992). Children’s academic adjustment to school, however, was predicted
by child characteristics of age, gender and language ability, as well as their approach to learning.

The findings from this study have important implications for future research in the areas of school adjustment and transition and have made an important contribution to advancing understandings of children’s experiences of school stress as they adjust to the first year of school.
1 INTRODUCTION

1.1 Overview

Starting school is a much-anticipated event in a young child’s life. Children, their parents and their prospective teachers all eagerly await the first day of school and wonder how children will adjust to their first year of formal schooling. Although the transition to school can be a daunting time for most children, it can also be an empowering experience in their lives. Children see themselves as growing up, and can be excited about the idea of wearing a uniform, meeting a new teacher and making new friends. The types of relationships children form with teachers and peers, and the strategies they develop to cope with school situations, are important determinants of a positive and successful adjustment to school over the first year. How well children adjust to these personal and interpersonal challenges in their first year of school can set the tone for their future school success.

Research on children’s transition to school and their subsequent adjustment over the first year has shown that interpersonal indicators of successful adjustment, such as positive teacher-child and child-peer relationships, and personal indicators of successful adjustment, such as children’s emotional competence, can be predictive of later school success (Alexander & Entwisle, 1988; Belsky & MacKinnon, 1994; Margetts, 1997; Pianta & Kraft-Sayre, 1999; Pianta & McCoy, 1997). Even if children have had prior experience at preschool or childcare, they can never be completely prepared for “big school”. They will have numerous questions and expectations about what school will be like. Before starting the new school, families anticipate some of the expectations children have of school and talk with them about what might happen at school and how it will be different to preschool or home. As children start school, families listen to children’s experiences when they get home from their first day and provide support for children as they begin their career as a student. Parents provide a major support for children prior to starting school, throughout the transition and into the following years of formal schooling.

Transition and orientation programs offered by schools and preschools also provide a support to children and are an important part of the process of transitioning and adjusting for children. It is through such programs that children meet their new teachers and can meet new friends, while also learning about the type of environment
they are about to enter. For the most part, it is up to individual schools and teachers to develop and implement successful transition and orientation programs for children and parents. Depending on the resources available to the school, the nature and quality of these programs may vary.

While parents and schools can provide a great deal of support and guidance for children as they start and adjust to school, it is the children themselves who experience this process. From the first day children face unfamiliar pressures and situations that must be managed, some on their own and, some with the help of their teacher. While many children develop effective strategies to cope with these situations, others may not. For some children, adjusting to the first year of school can be a difficult time (Dockett & Perry, 2003; Einarsdóttir, 2003; Margetts, 2003). The changes that occur as children move from prior-to-school environments to the formal school setting can often be associated with stress and anxiety (Birch & Ladd, 1997; Erikson, 1985; Howard, Dockett & Perry, 1999a; Janis & Leventhal, 1968).

One of the changes that occur for children when they start school is an increased emphasis by the teacher and school structures on academic competence. Academic learning is regarded as highly important in schools and is high on the agendas of education authorities. In a guide to starting school written for parents of children entering New South Wales Department of Education and Training (DET) schools, the Minister states that the “early years at school (are) a solid foundation for (children’s) future learning and development” with a “strong emphasis on literacy and numeracy” (New South Wales DET, 2006b, p. 3). Although some mention is made of children’s wellbeing at school, the focus of government on academic competence is evident. Indeed, much of the research focusing on the predictive nature of school adjustment has examined academic success in later years (Belsky, Booth, Bradley et al., 2004). However, a growing literature shows that social and emotional competence in the first year of formal schooling has a significant impact on later school success (Pianta & Kraft-Sayre, 2003).

The literature in the area of school adjustment has identified many social and emotional influences on children during the transition to school. These include positive teacher-child relationships (Birch & Ladd, 1997) and supportive peer relationships (Dockett & Perry, 2007) which provide children with positive and supportive experiences. Other influences, such as peer rejection (Birch & Ladd, 1994, cited in Juvonen & Wentzel, 1996) and children’s inability to regulate their emotions (Raver,
2002) may affect levels of stress and anxiety. Identifying these influences at an institutional level is important in understanding why some children adjust better than others. Equally important, and at a personal level, is developing an understanding of how children’s emotional wellbeing is affected by specific school situations.

The primary purpose of this study is to extend current understandings of the process of adjustment, as it is experienced by the child. This study seeks to explore children’s perspectives of the formal school environment at the beginning and end of the first year of school. Children’s views are gathered through a new measure of school adjustment that assesses stress and wellbeing in children’s experiences of specific and everyday school situations. A secondary purpose of this study is to examine children’s adjustment to school in context and over time, by developing and testing a process model of school adjustment. The process of transitioning and adjusting to school occurs within many different contexts (Bronfenbrenner, 1979; Bronfenbrenner & Morris, 1998). Therefore, consideration for the systems and contexts within which children are placed during this time is important. Equally important is the fact that the transition to school is best seen as a process that all partners or stakeholders experience, including children, parents and teachers, rather than as an event that happens to the child (Bohan-Baker & Little, 2002; Dockett & Perry, 2005).

1.2 The School Context: Challenges for Children

Although most Australian children will have attended preschool or childcare before entering school\(^1\), prior-to-school settings are different to the formal school environment in a number of ways. Prior-to-school settings do not have a prescribed curriculum and therefore are more varied in their focus on academic learning than schools. Although most childcare or preschool settings expect children to work in groups with peers, to sit at tables and undertake activities, and to sit on the floor and listen to the teacher, these expectations vary across settings. Also, prior-to-school settings have fewer children in a group and may not focus on these classroom skills as much as schools do. Behavioural expectations for eating, playing, going to the toilet, or getting the teacher’s attention, are also different in prior-to-school settings compared to schools. Further, the social demands on children associated with large numbers of children in one room with only one teacher rather than two or three teachers as is

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\(^1\) 88% of 4 year olds attended care in New South Wales in 2005 (Australian Bureau of Statistics, 2006)
common in preschools, also make the formal school environment very different from prior-to-school settings.

Briggs and Potter (1995) recognise that the transition to a new environment and new organisational arrangements can cause considerable stress and anxiety for young children. This view has been supported by researchers who have also identified starting school as a stressful time in a child’s life (e.g., Birch & Ladd, 1997; Fallin, Wallinga & Coleman, 2001). Fallin et al. (2001) report that school age children may be subject to school-related daily stressors such as “anxiety about school, conflicts with teachers, (and) competition with peers or siblings” (p. 18). Further to this, Robson (1999) points out that stress may have both positive and negative effects, depending on the child’s coping strategies and experience. Children differ in their perceptions of everyday school situations as stressful and their coping strategies for dealing with stress. Measuring these differences is a relatively new topic in educational and psychological research.

Stress can be mitigated by effective programs for transitioning children. The Starting School Research Project, designed by Dockett and Perry (1999a) highlights the “breadth of issues relevant to children’s transition to school” (Dockett, Perry, Howard, Whitton & Cusack, 2002, p. 353), and the importance of well-planned transition programs. The establishment of positive relations among children, parents and educators and the facilitation of each child's development as a capable learner are emphasised by Dockett et al. (2002), as is the consideration of contextual aspects of community and family.

Transition practices are also reviewed by Richardson (1997) who has drawn attention to the “diversity of practices” (p. 18) between states and school systems in Australia and New Zealand, and identifies issues for teachers, parents and children. According to Richardson (1997), significant issues include the age of entry into school and entry procedures, the type of classroom environment, the continuity between prior-to-school settings/home and school, parental involvement, and personal stress for children.

1.3 School Readiness, School Transition and School Adjustment

School readiness, school transition and school adjustment are three terms used to describe children’s experiences of the first year of school, and which represent overlapping areas of inquiry. The concept of school readiness addresses two overlapping areas of inquiry: the school-ready child and the child-ready school.
Children’s readiness for school includes whether or not they are equipped emotionally, socially, cognitively and physically to cope with the demands of the formal school environment. Schools that are ready for children display positive transition practices that emphasise positive relationships between children, teachers and parents, and support children through effective orientation and transition programmes.

The term ‘transition’ has been used in the literature to refer to the external transition practices employed by schools and prior-to-school settings and the internal experiences for the child of moving from the prior-to-school environment (e.g., preschool or home) to the formal school environment. Pianta and Kraft-Sayre (2003) define transition as “a process that involves four facets: ready schools, community participation and support, family knowledge and involvement, and preschools and child care settings committed to preparing children” (p. 9). It is the continuities and discontinuities between environmental factors and personal factors that create a challenge for children during the transition process, to which children’s response influences their subsequent successful adjustment to school.

Consequently, the term school adjustment has been used to describe how children adapt to the expectations of the formal school environment throughout their first year of school. Adjusting to school is a process that occurs over time and is affected by many factors internal and external to the child. These three areas overlap. For example, whether or not children experience a positive transition to school will depend on their level of readiness. Some children are more ready to begin school and face the academic, social and behavioural challenges of school, than others. More elaborate definitions of these terms and a discussion regarding what each involves will be presented below.

1.3.1 What is Readiness?

Carlton and Winsler (1999) note that “readiness has been historically defined as two separate concepts: readiness to learn and readiness for school” (p. 338). Readiness for school learning refers to the cognitive and academic expectation on children of being ready for school, and readiness for school refers to children being ready in terms of wider areas of social, emotional and behavioural domains of development. Both of these concepts are affected by the different experiences children have prior to school.

Children’s readiness to start school can be crucial to their future school success. Some researchers regard academic skills and cognitive competence as most important
when children start school, whereas others see children’s social skills and emotional competence as the more important factors. Indeed, a lot of emphasis is placed on the academic abilities of children when they begin school and whether or not they are ready to meet the demands of the early school curriculum. However, without the necessary social and emotional skills to cope with everyday school activities and situations, academic competence may be difficult for children to achieve.

Children’s school readiness can be a determining factor in whether they make friends, whether they can manage the academic requirements of the school curriculum, and whether they have enough independence to cope with physical and daily routines such as getting lunch out of their bag and going to the toilet by themselves. Emotional readiness can also make a big difference in whether children find school stressful or not. If children have developed a degree of resilience and independence prior to starting school, they may be better equipped to regulate their feelings in new and potentially stressful school situations. Readiness is something which develops over time, and is based on all of the experiences children have prior to school.

School readiness can also refer to the school’s readiness for children. Schools being ready for children is a somewhat new development in the readiness and transition literature. The “birth date deadline approach” (Carlton & Winsler, 1999, p. 339) aims to ensure some sort of learning readiness cut-off to avoid some of the problems associated with younger children starting school who are not yet ready. Yet, the complexity of school transition and adjustment is such that there is only so much that children and families can do to ensure children come to school ready to participate in formal schooling. As a result of this, the focus of the debate around the issue of readiness has shifted somewhat to schools being ready for children (in a physical and supportive sense) as well as children being ready for school (Halle, Vandivere, Pitzer, & Cochran, 2003; Kagan, 1994; NSW Department of Community Services, 2003; Wesley & Buysse, 2003).

The types of transition and orientation programs schools offer to encourage readiness in individual children and to familiarise children with the expectations of school are an important part of a successful transition. Pianta and Kraft-Sayre (2003) recognise that readiness is “…a reflection of a preschool’s preparation of a child, of a kindergarten’s preparedness to welcome that child, and of the parent’s recognition of the differences between preschool and kindergarten and their ability to manage those differences” (p. 12). Readiness is an important part of the transition to school with
transition seen as combination of schools being ready for children as well as children being ready for schools.

1.3.2 What is Transition?

Transition to school is widely considered a short-term process during which children move from home or the prior-to-school setting to the formal school setting. This process often involves participation in some type of orientation or transition program aimed at supporting children during the transition period and providing guidance for families to help their child be ready for school. The transition process encompasses environmental or contextual factors/challenges that children face as well as personal factors or experiences that children bring to the circumstances/situation during the transition period.

Many children starting formal schooling in Australia have been to preschool or day care at least one day per week, prior to starting school. Some children, however, have not had this opportunity and have come straight to the formal school environment from home. Significant changes and discontinuities between these prior to school experiences and school are not only evident in the physical environment, but are also evident in adults’ expectations of children, children’s relationships with peers and adults, and the requirements of more complex situations and routines.

Effective and successful transition to school programs have been in place for a number of years in Australia and overseas. Considerable research has been done in the area of transition to school to determine positive and negative factors in transition, and to identify best practice in planning transition experiences for children. Orientation programs, which operate the year before children start school, are designed to familiarise children with the environment and encourage positive relationships between children and their future teachers and peers. A ‘smooth’ transition to school has been a goal in recent years in New South Wales (NSW DET, 2006b). Teachers and communities at the school level are working hard to address the needs of children as they start school, and parents are being informed about issues pertaining to school readiness.

The expectation is that a successful transition into school leads to successful school adjustment later in the first year, and throughout children’s school experience. Children who experience difficulties during the initial transition period are likely to
experience difficulties adjusting to school and functioning well as a student in later school years (Ladd, Birch & Buhs, 1999).

1.3.3 What is Adjustment?

Adjustment is the long-term process of adapting to the new school environment, which begins with the process of transition to school. Positive adjustment to school in the first year is an outcome of successful transition to school. Children who competently and confidently pass through this stage of their school life look forward to more positive social, behavioural and academic outcomes later on (Alexander & Entwisle, 1988; Belsky & MacKinnon, 1994; Margetts, 1997; Pianta & Kraft-Sayre, 1999).

Unlike the transition process, which is linked to the external programs provided by the school, adjustment is viewed as a process that is intrinsic to the child. Thus it is more difficult to measure. The time frame in which children adjust to school can vary from child to child. Some children adjust quickly to the new environment whereas others still may not have successfully adjusted by the end of the first year. The concept of adjustment also includes a focus on how children cope with the changes that occur in the many different facets of their development as they enter school. In fact, whether or not children cope well with these changes and discontinuities impacts on their ability to adjust and be competent in their new environment.

A number of factors influencing successful adjustment to school have been identified by the research in this field. Four main predictors stand out in the literature as having a significant effect on the adjustment process. These include: School and classroom-related predictors, such as the transition programs employed by the school and the quality of the classroom environment; personal predictors, such as children’s age, emotional competence and temperament; family-related predictors, such as maternal education and family disadvantage; and interpersonal predictors, which include relationships between children and their teachers and peers.

At the classroom or school level, Margetts (1997) reports that children adjust significantly better to school when their school conducted a high number of transition activities, such as providing opportunities to experience the school environment prior to the beginning of school, and giving parents information about the school. Further to this, Margetts summarised specific discontinuities children face when they begin school, for example, discontinuities in the physical environment, in curricula, in teaching staff, in peer groups, and in the involvement of parents. The type of classroom
environment and the continuity between prior-to-school settings and school play significant roles in helping children adjust positively to school. An environment that fosters the individuality of children and their learning styles encourages children to take risks and develop knowledge and skills.

The quality of the classroom has also been found to contribute to children’s adjustment experience, as have family factors such as the support children receive from home. Parental involvement in their child’s schooling also has a positive impact on the child's valuing of school and willingness to learn. Having a familiar playmate in the same class also has a positive effect on children’s adjustment (Ladd & Price, 1987). Less direct influences on the child, including the social context in which children live and the extent of community resources available to the family prior to school and on commencement at school, can all play a role in the process of adjustment (NICHD Early Childcare Research Network, 2003).

Personal and interpersonal processes, such as children being socially and emotionally prepared for school, have been emphasised as critical to children’s early school success (Raver, 2003). Children who have difficulty paying attention, following directions, getting along with others and controlling negative emotions such as anger and distress, do less well in school (Arnold, Ortiz, Curry et al., 1999; McClelland, Morrison & Holmes, 2000, cited in Raver, 2003). Other personal predictors of school adjustment include a child's temperament. For example, children with a more difficult temperament are more likely to exhibit problem behaviours (Nelson, Martin, Hodge, Havill & Kamphaus, 1999) and are in turn more likely to have difficulty conforming to the rules and routines of the formal school environment, and possibly also in forming positive relationships with peers and adults.

Child age at school entry may be linked to these socio-emotional processes, however views on this differ. Richardson (1997) reported that the age children begin school has been found to have no significant impact on their academic performance during their later primary schooling. However, others (Dockett & Perry, 2002) have found that children who are very young when they begin school may lack readiness to learn in the school environment.

In sum, children’s school readiness, transition to school and adjustment to school are related in terms of how children change over the first year. The process of adjustment is illustrated by the change from children being ready for school to the actual transition experience and then to the subsequent adjustment to the first year. By
accounting for as many of these predictors as possible when measuring the process of adjustment, researchers are in a better position to control for and understand a range of factors that contribute to and contextualise children’s adjustment to school.

1.4 Conceptualising School Adjustment

Conceptualising school adjustment from a process perspective entails considering all contributing factors and multiple viewpoints. This section of the chapter will introduce the ways that adjustment has been examined in the past and will outline the need for a holistic approach to the measurement of the adjustment process. The benefits of using qualitative and quantitative techniques together will be briefly examined, along with the need to include children in research.

1.4.1 Measuring School Adjustment

Research on adjustment to school has tended to measure child adjustment via teacher reports. It is only recently that children’s perspectives of school have been recognised as a valuable means of understanding the process of adjustment, as it affects those who are directly involved. Both teacher and child measures have gathered information pertaining to interpersonal relationships, child behaviour, social skills, peer acceptance, academic competence, and personal factors within the child.

The quality of the child’s interpersonal relationship with the teacher has also been included as a measure of children’s adjustment to school. Teacher ratings have been used to determine the quality of the teacher-child relationship in many of these studies (Baker, 2006; Birch & Ladd, 1997; Harrison & Ungerer, 2006; Pianta & Steinberg, 1992). Recent research has also included children’s perspectives of their relationship with the teacher (Birch & Ladd, 1997; Harrison, Clarke & Ungerer, 2007; Mantzicopulos & Neuharth-Pritchett, 2003; Valeski & Stipek, 2001). These studies note the need to provide both perspectives on relationship quality.

Teachers are an important source of information regarding children and their development; however the information they provide about children’s experiences and feelings about school may be problematic. Teachers are trained to observe children in the classroom in order to see how they are learning and whether children are on task. Teachers are also expected to evaluate their own progress as a teacher. They need to determine whether developmental and academic outcomes are being met in order to satisfy the requirements of education departments and policy makers. Research has
argued that teachers observe children in a particular way, depending on the social and ecological context in which they themselves exist. The view is that there are many biases that teachers might bring to bear on their reports on children. Furthermore, teachers have received different training and depending on their depth of knowledge about educational and developmental psychology, they will not only teach children in different ways, but may react to children in different ways. Individual teacher differences and biases have been somewhat overlooked in most research studies, possibly because it is difficult to control for similarities and differences in ratings of children across different teachers and different classrooms.

Parents are another source of information on child adjustment to school. Children’s behaviour at home and at school has been used to identify differences in children’s ability to successfully adjust to the social and organisational requirements of school. Different behavioural expectations are placed on children once they begin formal schooling, compared with the expectations of the home and prior-to-school setting, and behaviours that are acceptable at home may not be acceptable once they start school. However, children’s behaviour at home can be associated with the relationship they have with teachers and peers. For example, children with more externalising types of behaviour have been found to be more likely to have less closeness in the teacher-child relationship and more dependent relationships with teachers (Pianta & Nimetz, 1991; Silver, Measelle, Armstrong & Essex, 2005). Similar findings have been shown for a child’s behaviour and the quality of their peer relationships. Perren, von Wyl, Stadelmann, Burgin and von Klitzing (2005) found that children with emotional or conduct problems in their first year of formal schooling, as rated by parents, were at risk of peer victimisation or rejection.

Peer nominations are a further source of school adjustment assessment. Children’s social skills and their level of peer acceptance in the classroom and playground are fundamental to their successful adjustment over the first year. Peer nominations have been used by some researchers to assess children’s level of peer acceptance, which has been identified in the literature as an important correlate of school liking (Ladd & Coleman, 1997). Peer victimisation and rejection, on the other hand, have been associated with higher levels of school avoidance (Ladd, Kochenderfer & Coleman, 1997; Ladd, 1990). Both school liking and school avoidance are known contributors to school adjustment.
Tests of academic competence have also been used to provide information about children’s adjustment to school. Children’s academic competence and how they perceive themselves as learners not only has an effect on their own self-confidence and self-esteem, but also has an effect on the academic risks children are willing to take in the classroom. Indeed, Ladd, Birch and Buhs (1999) found that classroom participation was an important prerequisite for achievement in the first year. Many others have also found that higher levels of achievement are associated with higher levels of school liking in the first year of school (Harrison, 2004; Ladd, Buhs & Seid, 2000; Ramey, Lanzi, Phillips & Ramey, 1998).

1.4.2 Multiple Perspectives on School Adjustment

A holistic approach to children’s school adjustment seeks to combine the perspectives of children, teachers, and parents. Such an approach is able to generate a comprehensive understanding of school adjustment processes by describing what each participant experiences or perceives is occurring during this time. In addition to this, gathering information from multiple sources and respondents allows a deeper insight into what is being experienced to be developed. The inclusion of multiple perspectives and the use of qualitative and quantitative methods for gathering data will be discussed below.

Including Multiple Perspectives

Many researchers agree that placing children at the centre of research that directly affects them should be of primary importance when trying to understand the world of individual children (e.g., Dockett & Perry, 2003, 2005). Children can be valuable participants in research when the techniques used to collect data from children are appropriate. Having said this, when the perspectives of teachers and parents are also included in research, a rich picture of the overall process of adjustment can be obtained. Landmark studies in Australia and overseas, for example the Starting School Research Project (Dockett & colleagues) and the National Centre for Early Development and Learning (NCEDL) Kindergarten Transition Project (Pianta & colleagues), have included multiple perspectives to examine the school adjustment process. Other research projects overseas have also recognised the complexity of the transition to school and gathered the perspectives of children, teachers and parents to analyse the transition process (e.g., Fabian, 2000; Griebel & Niesel, 2000; Peters, 2000).
While obtaining the perspectives of children on how they are adjusting to school is beneficial, so too is gathering the views of teachers and parents. Children’s transition to school is just as important for teachers and families of children starting school as it is for the children. It is a time they have planned and prepared for, for some time. By including the different views of all of those who are involved, the full extent of the process of children's adjustment to school can be better understood.

Using Qualitative and Quantitative Methods

As adjustment is a multi-faceted process, a multi-method approach is needed to gather multiple perspectives. Also an approach that uses both qualitative and quantitative methodologies will provide varied and comprehensive information.

Qualitative methods have been used successfully to identify children’s attitudes towards school and how they cope with stressful situations (e.g., Griebel & Niesel, 2000). For example, case study approaches have been used to invite children to discuss how they feel about certain topics that are of importance to them, in more depth than usually allowed by quantitative designs (e.g., Einarsdóttir, 2003; Perry, Dockett & Howard, 2000). Researchers have interviewed increasingly younger children over the last few years, and have reported reliable and valid data from children as young as preschool age (e.g., Sorin, 2003). Quantitative methods have also been used successfully to elicit information from children on more tangible topics, such as the extent to which children experience certain feelings about their school and teacher (e.g., Harrison et al., 2007; Valeski & Stipek, 2001).

Qualitative designs focus on developing a picture of the individual and what they are experiencing, and for this reason is usually conducted with smaller groups of participants. Quantitative designs, on the other hand, focus more on gathering descriptive data from a larger number of children, teachers or parents, in order to understand a particular phenomenon on a larger scale and in a more generalisable way. By combining the two design approaches, individual experiences can be used to illustrate broader measures.

1.5 Research Aims

The first aim of this study was to examine children’s social and emotional adjustment to school over their first year. Social aspects of school adjustment include the relationship children have with their teachers and peers as well as how well they are
able to meet the expectations of teachers in the school environment. Emotional aspects of adjustment include children’s feelings about school and the degree of stress or anxiety they feel in certain school situations. To achieve this aim, a new measure was developed to elicit children’s own perspectives of their feelings about specific school situations and their relationship with the teacher. In addition, teacher and parent perspectives of adjustment and relationship outcomes over the first year were included. Both qualitative and quantitative techniques were used to gather different types of data from children, teachers and parents in an attempt to obtain a more complete view of the adjustment process. A component of this study was to test the validity of the measure of children’s adjustment to school by comparing children’s responses (gathered through qualitative means) with quantitative ratings obtained from children, teachers and parents.

The second aim of this study was to develop a model of adjustment that placed the child at the centre of the adjustment process and explained their adjustment in context and over time. The change in children’s perspectives of their experience of the first year of school was of primary interest. Therefore, the model sought to illustrate the process of adjustment over the first year, and to determine how important children’s early school experiences were in predicting their later school adjustment. A process model of child adjustment was developed, which drew on Bronfenbrenner’s bioecological model of human development (Bronfenbrenner & Morris, 1998) and other specialised models of school transition and adjustment (Birch & Ladd, 1996; Dunlop, 2003b; Rimm-Kaufmann & Pianta, 2000). These models recognised that adjusting to school is a developmental process that is influenced by many factors within and around the child. Children’s experiences throughout their first year occur not only within the school and classroom context, but also within the context of the child’s family and the community in which they live.

1.6 Overview of thesis

The thesis consists of nine chapters. The background and purpose of the study have been described in Chapter 1. Chapter 2 provides a review of the relevant literature to define the concept of adjustment to school and investigate the predictors of adjustment. This chapter highlights the importance of emotional wellbeing throughout the process of adjusting to school and the negative impact stress can have on children during this time. Chapter 3 presents a proposed theoretical framework for examining the
process of school adjustment using a holistic approach. Chapter 4 describes the design and development of a new measure to assess children’s perspectives of school stress and wellbeing and presents an interpretive analysis of children’s responses. Chapter 5 reports the methods of participant recruitment and data collection, as well as the teacher, parent, child and classroom measures used in the current study.

Following this, the results are presented in three chapters. Chapter 6 will present the descriptive statistics for child, parent and teacher reports, and assessed measures of children’s school adjustment. Chapter 7 will present descriptive statistics for children’s responses to the Pictorial Measure of School Stress and Wellbeing. Chapter 8 will present the results from testing the process model of school adjustment. Chapter 9 will present an overall discussion of the research findings from the three results chapters. Conclusions and limitations will be included in this chapter, as well as implications for future research.
2 REVIEW OF LITERATURE

There are two main areas of research that need to be taken into consideration when examining the process of school adjustment. The first focuses on what adjustment is, how it is defined, and the numerous components that are included in a successful adjustment to school. The second addresses the predictors of adjustment. This chapter will look at both of these areas in detail. The first section examines four components of adjustment: personal or emotional processes, intrinsic to the child; the interpersonal relationships between the child and significant others, primarily the classroom teacher; behavioural expectations of the school and classroom, which reflect the institutional requirements of the school environment; and child cognition or learning readiness. The second section of this chapter examines the predictors of adjustment by reviewing three broad areas of research: the classroom environment, characteristics of the family, and factors internal to the child.

2.1 Defining Adjustment

The concept of adjustment in school contexts can be defined as the process of adapting to the new school environment. It is characterised by both biological and environmental factors.

Research in the area of school adjustment in kindergarten (the first year of school in New South Wales) has focused on factors that influence school adjustment and predict successful or positive adjustment. The adjustment process itself is embedded in and defined by the factors that affect it. Therefore the nature of the child's adjustment to school is seen as reliant on diverse child, family and classroom or school factors, as well as factors being brought to bear by the social context in which the process takes place.

As noted above, the research on adjustment to school in kindergarten incorporates four main areas. Within these four overarching areas of adjustment to school there are more specific areas of research. Personal or emotional processes include processes within the child such as stress and emotional wellbeing, emotion regulation, emotion expression, emotional competence, coping, school liking and avoidance. Interpersonal relationships include social readiness, peer sociability and teacher-child relationships. Expectations of school and classroom behaviour include the expectations teachers have for children’s behaviour and children’s reactions to these in
the classroom environment. Cognition and learning readiness includes specific aspects of young children’s learning readiness, as well as engagement, and academic ability.

2.1.1 Personal and Emotional Processes

The term personal and emotional processes refers to factors or processes intrinsic to the child that affect the child, the way they adjust to the internal and external demands of school, and the stressors presented to them in the new environment. These processes are emotion-focused and rely on children’s emotional development.

Stress

Researchers have reported many causes of stress for young children, with transition and adjustment to formal schooling being an area that has attracted a lot of interest (e.g., Briggs & Potter, 1995; Richardson, 1997). It has only been in the last few years, though, that research on stress has focused on young children’s experiences.

Both everyday and clinical levels of stress have been investigated by psychologists for the last seventy or eighty years. In 1932, Hans Selye, one of the founding fathers of stress research, noted that stress could have both beneficial and detrimental effects on personal wellbeing. It is this idea that has defined what stress actually is, how and when it occurs, and how humans cope with it.

Stress has been defined by Hans Selye (1987) as the “non specific response of the body to any demand, whether it is caused by, or results in, pleasant or unpleasant conditions” (p. 7). In addition to this, Lazarus (1999) came to the conclusion that emotions can be used to unify the field of stress research. He subsequently noted that if stress research is, in fact, a study of emotions, then recognising emotions as the “subordinate” concept may provide the focus to link together and organise the process of stress itself. Thus, it seems important to examine the different emotional aspects of stress response in everyday situations, in order to fully understand the underlying stress response. Lazarus (1998) asserted that referring to stress as a unidimensional variable was a restrictive way to measure reactions compared to the wide variety of emotions that stress produced. Janis and Leventhal (1968) also recognised the relationship between stress and emotion and noted that stress is caused by environmental changes that provoke a “high degree of emotional tension” and “interfere with the normal patterns of response” (p. 1043).
Robson (1999) proposes that if we are to view stress as an emotional response, then it may be seen as having both positive and negative effects upon individuals. Individuals can be affected by stress in different ways depending on their coping strategies and experience. For example, “children sometimes gain strength and sometimes suffer as a result of stress” (Anselmo & Franz, 1995, p. 463), depending on the situation. In some cases a stress response to a situation can increase the child’s desire to do better, as in the case of running a race. So, the continuum from positive to negative stress should be focused on if we are to assess and examine this construct with regard to children.

Previous research has shown that the everyday anxieties and stresses that children experience in relation to school can be caused by many different factors. These include an increased emphasis on academic achievement, and other changes that occur as children move from home or prior-to-school settings to school. Howard, Dockett and Perry (1999) report that children who find school unfamiliar and unrelated to their home environment tend to experience more “difficulty, confusion and anxiety during the transition” (p. 2).

Stress can also be caused by social and behavioural expectations of the formal school environment that have not been encountered before. For example, it may be harder for children to form friendships with other children at school, because, unlike at home and prior-to-school settings, they no longer have the direct assistance of their parents or caregivers. Ladd (1990) notes that school entrance can be stressful for young children, as they have to negotiate their own interpersonal environment in the absence of parents and other attachment figures. Children are required, in these circumstances, to form their own peer relationships and become part of a new social group. This negotiation can function as a stressor for young children, and impair successful early adjustment to school. We know that the nature of relationships between and among children has a “significant impact on children’s sense of belonging and acceptance within a school community” (Dockett & Perry, 2001, p. 4), and that effective child-child relationships are an important factor in children’s successful transition to school and for later school success (Ladd et al., 1999). A further factor explaining differences in school-related stress is children’s relationship with their teachers. Birch and Ladd (1997) note that it is likely that conflict in the teacher-child relationship acts as contributor to stress for school children, and “may impair their successful adjustment to school” (p. 63).
Research and practice have shown that factors causing problems of stress and anxiety in transition include “entry age, type of classroom environment, the concept of continuity, and personal stress” (Richardson, 1997, p. 18), as well as the organisational arrangements and social environment of the new school (Briggs & Potter, 1995), and classroom “rules” (Dockett & Perry, 1999a, 2001; Yeo & Clarke, 2005). Howard, Dockett and Perry (1999a) have also noted that children who find school unfamiliar and unrelated to their home environment tend to experience more “difficulty, confusion and anxiety during the transition” (p. 2). The experience of stress for young children can be conceived as an emotional response that may manifest in many different ways. Robson (1999) states that stress may have both positive and negative effects depending on the child’s coping strategies and personal experiences. Muldoon (2003) notes that research on child stress has often “failed to account for children's own feelings about or perceptions of their situation” (p. 193).

The nature of the classroom also affects children’s experience of stress. Early on in the discussion about developmentally appropriate versus developmentally inappropriate practice in early childhood settings, Burts, Hart, Charlesworth and Kirk (1990) found that children attending more developmentally appropriate kindergarten classrooms exhibited less stress-related behaviours (e.g., withdrawal, fingernail biting, playing with toys at inappropriate times, and destroying work), than their peers who attended less developmentally appropriate classrooms. Children also displayed more stress behaviours during whole group activities and worksheet/workbook activities in developmentally inappropriate classrooms. These findings have interesting implications for assessing adjustment to school in kindergarten in conjunction with the quality of the environment, especially with relation to child stress.

The specific demands and expectations of the school environment play a significant part in making school a new and possibly stressful experience for children. Dunlop (2003a) found there are “major discontinuities between settings, relationships, pedagogy and curriculum” (p. 1) as children move from preschool to school, and that these discontinuities provide significant challenges for children starting school.

Drawing on data collected from teachers, parents and children participating in the Starting School Research Project, Dockett and Perry (2001) report that “young children focus mainly on the rules they need to know in order to function at school, as well as how they feel about going to school” (p. 3). Dockett and Perry (1999a) also noted that the two main issues that children saw as important for them during the
transition to school were (1) knowing the school rules and (2) their feelings about school. Dockett and Perry (2001) talk about the importance of confidence within the child and note that knowledge of rules helps children to be more confident in the school environment. Children who feel and convey more confidence are more likely to have positive attitudes not only toward school but also toward relationships with their teacher and peers and, therefore, to suffer less stress associated with these aspects of school. Einarsdóttir (2003) also investigated preschool children’s views and attitudes towards their transition to primary school. Results of this study showed that apart from learning to “read, write and do mathematics” (p. 42), children thought they would be learning rules and how to behave when they reached first grade (kindergarten equivalent). Similarly, Valeski and Stipek (2001) found that a classroom context with clear rules and consistent expectations could promote a sense of competence in young learners. We also know that children differ in terms of their ability to manage stress and that children use a variety of coping strategies in their daily lives (Beaver, 1997).

When we look at everyday stress, and in particular how this stress affects children’s emotional development and coping strategies, we also need to look at the literature in the area of wellbeing. If we are to focus on the continuum of positive to negative stress, then we need to also focus on the continuum of positive and negative feelings – or emotional wellbeing to emotional stress.

**Emotional Wellbeing**

The concept of wellbeing is complex and somewhat difficult to define, and therefore can be difficult to measure. Much of the research conducted in Australia and overseas focuses on physical wellbeing, i.e., physical health and development, and nutrition, more so than emotional wellbeing. However, it is emotional wellbeing that is the concern for how levels of everyday stress affect children's emotional development and coping strategies.

Although some minor dissimilarities are apparent when examining the domains of wellbeing as identified by researchers and policy makers in Australia and overseas, emotional wellbeing is always included (e.g., Land, Lamb & Mustillo, 2001). Australian research undertaken by McMahon and Reck (2003), who examine wellbeing in Indigenous foster children, also recognises the importance of emotional wellbeing, not just physical or economical wellbeing. De Schipper, Ijzendoorn and Tavecchio (2004) have also used the concept of wellbeing in examining young children’s social and
emotional response to their day care settings, and the relationship between emotional wellbeing and problem behaviour in centres.

Laevers (2003) examines the idea of making care and education more effective through wellbeing and involvement. He proposes an Experiential Education theory to “assess the quality of any educational setting” with a focus on the combination of two dimensions: “the degree of emotional wellbeing”, and “the level of involvement” (p. 1). Bröstrom (2000) echoes the importance of children’s wellbeing in the educational environment while looking at the transition to school in Denmark. He notes that a “fundamental goal of a school-start transition is to help young children...have a feeling of wellbeing and belonging” (p. 1). Similarly, Fabian (2000, 2002) and Fabian and Dunlop (2002) emphasised the connections between social-emotional wellbeing and learning and regarded children's emotional and social wellbeing as “central ingredients to children settling into school” (Fabian, 2000, p. 1).

Emotional wellbeing has been referred to by Diener and Lucas (2004) as subjective wellbeing. The field of subjective wellbeing examines topics such as “happiness, life satisfaction, and morale” (p. 325), and for the most part has been measured using self-report scales. The importance of including other measures of wellbeing, such as peer reports, teacher reports and parent reports, has been alluded to by the aforementioned authors, and would inform us of the wellbeing of the individual in a more social context, in addition to their self-reported subjective wellbeing.

Understanding the area of emotional and subjective wellbeing requires familiarity with the more broad area of emotions, specifically, emotion regulation, emotion expression, and emotional competence. These concepts will be discussed in the following section.

**Emotion Regulation, Emotional Expressiveness and Emotional Competence**

The field of emotions is complex, with many book chapters and research papers dedicated to discussing the in-depth history and philosophy of emotions (e.g., Lewis & Haviland-Jones, 2004), as well as numerous approaches to understanding emotions, including biological and neurophysiological, developmental, behavioural, social and cognitive approaches.

Gross (1998) describes emotions as response tendencies, an idea originally proposed by James (1884, 1894; cited in Gross, 1998). James regarded emotions as “adaptive behavioural and physiological response tendencies that are called forth
directly by evolutionarily significant situations” (Gross, 1998, p. 273). These emotional response tendencies can either be behavioural, experiential, or physiological, and importantly, may be adapted or “modulated” (p. 274) before emotional responses occur. Gross (1998) recognises that research on individual differences in emotion and emotional development has included a specific focus on emotion regulation and emotional expression. It is these two areas of research, along with the field of emotional competence, which need to be considered when exploring the role that emotions play in young children’s adjustment to formal schooling.

In recent times, emotion regulation has been identified as one facet of emotional intelligence (Cole, Zahn-Waxler, Fox, Usher & Welsh 1996). However the notion of emotional intelligence is actually a later development. The concept of emotion regulation has been formed on a theoretical basis, whereas emotional intelligence is more a term used to describe the overall emotional capabilities of a person. Emotion regulation is a multidimensional process (Cole et al., 1996). Children who are competent at regulating their emotions are considered to be emotionally responsive and therefore appropriately emotionally expressive (i.e. not over- or under-expressive in their behavioural reactions to situations). Gross (1998) suggests that the emotion regulation research is building on and refining the research undertaken in the area of stress and coping, and that the literature on stress and coping is an important predecessor to emotion regulation. Gross goes on to define emotion regulation as the “processes by which individuals influence which emotions they have, when they have them, and how they experience and express these emotions” (p. 276). It is this definition that sheds light on the relationship between starting school and the importance of children’s ability to regulate their emotions in situations that are different or that induce a stress response. It also allows us to see the connection between children’s level of emotion regulation and their ability to cope in the new and different environment of school. That is, the more advanced or developed that children are in their ability to regulate their emotions effectively and display positive and constructive coping strategies to situations that may be stressful, the more prepared they are to adjust positively to the new school environment and its many social and emotional demands. Raver (2002) reiterates this idea noting that, “children who are emotionally well-adjusted have a significantly greater chance of early school success” (p. 3).

Part of children’s early school success depends on the relationships they have with significant adults in their lives. From the attachment theory perspective (which will
be discussed later in this chapter), secure parent-child and teacher-child relationships support children’s capacity to regulate their emotions, which is an important link between stress and coping with stressful situations. How children express their emotional reactions to situations at school can impact the way others perceive and react to them. For example, children who react positively to school situations that involve peers or teachers can encourage others to perceive them as friendly and approachable, whereas children who react negatively to these types of situations may be seen as intimidating and unfriendly. These differences in responses can, in turn, affect children’s interpersonal relationships. At a time when the development of positive relationships is so important, this can be detrimental to a child’s positive adjustment to school. This idea, of the role emotional expressiveness plays in young children’s interpersonal relationships is also described by Denham, Blair, DeMulder et al. (2003), who looked at preschool emotional competence and its impact on social competence. These authors describe children’s emotional expressiveness as “a central aspect of their emotional competence” (p. 239), and reinforce the fact that social and emotional competence is vital to school readiness and successful adjustment to school. Emotional competence has been described by Raver (2002) as “children’s ability to label and manage different emotions”, and she discusses how positive aspects of this ability provides children with “powerful social tools” (p. 5) during children's emotional and social adjustment to school.

**Coping**

Stress and wellbeing, and children’s emotional reactions to school-related personal and interpersonal situations, is closely aligned to the concept of coping. Indeed many see coping as emotion management (Eisenberg, Fabes & Guthrie, 1997; Rossman, 1992) or the next step on from emotion regulation. Eisenberg et al. (1997) conclude that children’s own perceptions of how they can successfully manage or control stressful events seem to influence whether or not a situation or event is experienced as stressful.

There has been an increased research interest in the area of coping since the 1970s (Lazarus, 1999). From the 1980s onwards, this interest focused more on children, especially with regard to “normal” children and coping with everyday situations.

Lazarus and Folkman (1984) define coping as an individual’s behavioural and cognitive efforts to manage internal and external demands that are considered threatening or challenging to that person’s resources. Most of the research in the field of
coping is concerned with styles of coping or coping mechanisms, and two main types of coping are identified by the majority of researchers: problem-focused coping, and emotion-focused coping. In his development of a coping inventory to ascertain children’s self-reports of what they do to feel better in times of distress, Rossman (1992) suggests that the examination of coping behaviours could be organised into strategies, and outlines the importance of looking at the “role of coping strategies as moderators of the relationship between stress and adjustment” (p. 1374).

Band and Weisz (1988) note that children’s ability to cope with everyday situations that elicit some sort of stress response needs to be addressed to the same degree as their ability to cope in more “extraordinary” (p. 247) situations, such as those considered to be physically or psychologically traumatic for a child. Interestingly, unlike research in the areas of school transition and adjustment a decade ago, child self-reports have been drawn on to examine children’s coping strategies (e.g., Band & Weisz, 1988; Bernzweig, Eisenberg & Fabes, 1993; Compas, Connor-Smith, Saltzman, Thomson, & Wadsworth, 2001; Spirito, Stark, Grace, & Stamoulis, 1991) rather than reports only from significant adults in a child's life. Many researchers who investigate coping strategies have “noted the existence (or possible existence) of coping styles that are somewhat consistent across time and contexts” (Eisenberg et al., 1997, p. 43). However, there is agreement that it may be more important to look at the possible change of coping strategies over time. In the case of kindergarten children, it is important to identify those who begin school with negative coping strategies, and to assist them with developing constructive strategies for dealing with stressful situations over time.

Many researchers have identified different styles of coping that children draw on in stressful situations. Lazarus and Folkman (1984) identify broad categories of coping, including children's ability to regulate their emotions, modify the problem, and regulate emotionally driven behaviour. Others describe strategies of utilising peers for social support (e.g., Band & Weisz, 1988; Rossman, 1992; Spirito et al., 1991). Spirito et al. (1991) have further described children’s use of wishful thinking as a coping mechanism.

The different coping styles have some degree of overlap. It appears that the most significant way in which children’s own perspectives of coping in stressful situations can be described, is by drawing on overarching dimensions of coping, while examining children’s actual responses to specific stressful situations.
Attitudes Toward School

Children’s attitudes toward school play a significant role in their ability to adjust to the formal school environment in kindergarten. Attitudes are commonly described as feelings of school liking and school avoidance and have been studied by researchers both in Australia (e.g., Harrison, 2004) and internationally (e.g., Ladd & Price, 1987). Some researchers have referred to school liking as school sentiment (e.g., Ladd et al., 2000), and others have referred to children’s feelings about school and dispositions (Dockett & Perry, 2001). Parent and teacher reports of children’s school liking were originally drawn on to ascertain how children were feeling about school until researchers (such as, Ladd, 1990) recognized that even quite young children were reliable sources of information about their own feelings. However, research methods must be suitable for the age and ability of child respondents.

Much of the research conducted in the area of school liking, particularly that which includes children’s self-reported liking/avoidance and its relationship with academic competence, has been carried out with children above the age of seven or eight (when they are in grade 3 and above), and has been undertaken outside of Australia. However, Australian researchers (e.g., Dockett & Perry, 2001; Harrison, 2004; Harrison et al., 2007) have found that asking young children about their experiences at school and the degree to which they like school, elicits reliable information. Ladd’s (1987) work has shown that children who like school are more likely to benefit from their educational experience than those children who experience anxiety, avoidance or negative attitudes toward school. Ladd notes that it is the latter types of signs that can indicate early adjustment difficulties and which may disrupt children’s future progress. In a more recent study, Ladd, Buhs and Seid (2000) have reported that the degree to which children like school “may be an important determinant of their classroom participation, which in turn may impact their achievement” (p. 255). These authors go on to note three criticisms of past research in the area of school feelings: (1) very little data have been collected on children’s feelings as they enter grade school; (2) research has focused on children’s perceptions of academic tasks, opinions about teachers, interests in specific topics, or academic expectations, and; (3) data have not been collected with young children, but with middle or high school students “who have considerable classroom experience and well-established belief systems about school” (p. 256).
In the Starting School Research Project, conducted in Australia, Dockett and Perry (1999a, 1999b, 2001) have developed methodologies to ask young children entering school about things that are important to them during this time. They have identified two main areas of importance for children: knowing the rules of school, and their disposition or feelings about school. Dockett et al. (2002) report that children who start school feeling happy have a good chance of succeeding at school. By contrast, children who start school feeling anxious or “as if they don’t belong” (p. 352) will need more support at school.

Research has identified numerous factors that contribute to a child's degree of school liking. These include: familiarity with the school rules and routines (Dockett & Perry, 2001); a positive teacher-child relationship (Birch & Ladd, 1997; Pianta & Steinberg, 1992) and positive attachment bond (Sims & Hutchins, 1999); positive peer relationships (Coleman, 1993 cited in Ladd, Kochenderfer & Coleman, 1997; Ladd, 1990); and academic competence (Gest, Welsh, & Domitrovich, 2005). Just as a range of factors predict school liking, school liking itself is a correlate of many different aspects of a child’s scholastic life. Harrison (2004) reported that child-rated school liking was a correlate of teacher-rated classroom participation and achievement. Similar findings have been reported by Ladd, Buhs and Seid (2000) and Buhs, Ladd and Herald (2006). In addition, peer acceptance correlates with school liking (Ladd & Coleman, 1997), and school avoidance has been connected with peer victimisation (Ladd, Kochenderfer & Coleman, 1997) and peer rejection (Birch & Ladd, 1994, cited in Juvonen & Wentzel, 1996; Ladd, 1990). Ladd and Coleman (1997) showed that early school attitudes forecasted changes in children’s perceptions of their peer interactions, in that school liking was associated with children’s peer relationships (e.g., peer acceptance, mutual friendships) and that early school attitudes were connected with changes in children’s peer perceptions.

Ladd, Buhs and Seid (2000) sought to explain whether children's initial feelings about kindergarten were an antecedent of early classroom participation and achievement. They report that, “greater support was found for the premise that school liking fosters classroom participation and achievement than for the contention that early participation and achievement increases school liking” (p. 255). The level of school liking that children have at the beginning of the year may change over time and affect their interactions both academically and socially. Ladd, Buhs and Seid (2000) also recognise that children who like school may be more likely to conform to the rules and
responsibilities of the classroom and fit the “student role” (p. 273) as defined by teachers.

Australian research with 4-5 year old children found that positive peer interactions make a substantial contribution to children’s social and emotional development (Walker, 2004). Peer group acceptance and rejection have been related to aspects of children’s school adjustment such as their academic performance, school liking and school avoidance. Ladd (1990, cited in Juvonen & Wentzel, 1996) found that “rejection by the peer group was predictive of negative perceptions of school and greater school avoidance” (p. 206). Juvonen and Wentzel (1996) state, “being rejected by one’s classmates may operate as a stressor, and be detrimental to children’s successful adjustment to school” (pp. 205-206). Other research has found that kindergarten children with emotional or conduct problems were at risk of peer victimisation or rejection (Perren et al., 2005). Ladd, Kochenderfer and Coleman (1997) report that children with higher levels of peer acceptance in their classrooms displayed a tendency to articulate higher levels of school liking. In contrast, children who are rejected by peers and have negative peer relationships are more likely to be unhappy at school, and have lower levels of school liking. The prevalence of bullying and peer victimisation is one specific way children can be rejected by their peers.

Slee and Rigby (1994) reported that at least 10% of school-aged children they conducted research with in 1991 (between the ages of 6 to 16 years) are subjected to peer group bullying at school. These authors note that peer victimisation significantly affects children’s happiness and, conversely, their loneliness at school. Peer victimisation is “another form of peer rejection” (Juvonen & Wentzel, 1996, p. 207) and can lead to poor adjustment outcomes. Peer victimisation is not necessarily predicted by school avoidance, but is likely related to avoidant attitudes towards school. Ladd et al. (1997) found that children who experience lower levels of peer victimisation in the classroom tended to express high levels of school liking. In their study, peer victimisation was the only variable that accounted for variation in the school liking construct.

Connell and Wellborn (1991, cited in Juvonen & Wentzel, 1996) suggest that a sense of relatedness or involvement in peer relationships may “operate as a powerful motivator for children in school” (p. 201), suggesting that positive peer involvement may predict school liking. Indeed many researchers have found that group learning can be beneficial to children because they are able to relate to and discuss ideas with their
peers (Wentzel & Watkins, 2002). The use of groups as a learning strategy is used by many teachers worldwide.

**Children’s Attitudes About School**

There have been a limited number of studies that place children at the forefront of data collection by using direct and indirect measures of children’s feelings about school. Dockett and Perry (2005) acknowledge, “children have long been ‘objects of inquiry’, that is, research has been ‘done’ on children” (p. 4). The inclusion of children as research participants will be discussed further in the third section of this review (measuring adjustment and transition), however efforts to include children in research that directly affects them and with specific regard for school feelings should be highlighted here. In particular, research that elicits both direct and indirect accounts of feelings about school and adjustment in kindergarten will be discussed.

Children’s direct perceptions of their teacher, academic (maths and literacy) competence, and their overall attitudes toward school have been assessed by Valeski and Stipek (2001) using the Feelings About School scale. These researchers reported kindergarten children’s ability to respond to this measure reliably and with sufficient validity, illustrating variability in children’s responses and significant correlations with similar teacher measures. Similarly, Lapp-Payne (2005) developed and used the Feelings About My School and Teachers instrument (FAMST) to measure of children’s perspectives of relationship quality with their teachers in prior-to-school settings and found that children’s reports of the quality of their relationship with preschool teachers could be predictive of children’s subsequent social adjustment in kindergarten. Mantzicopoulos and Neuharth-Pritchett (2003) also explored preschool children’s perceptions of their relationship with their teacher, and found that children’s ratings of warmth were correlated with teacher's ratings of security in the teacher-child relationship.

Dockett and Perry (2003, 2005) recognised the importance of obtaining direct reports from children regarding their experiences of starting school; they note, “early findings of the Starting School Research Project indicated a clear difference in the perspectives of the children and adults involved in transition” (2003, p. 12). In their study, small groups of children were asked to take photos of things in their school environment that they felt were important and to provide accompanying text with reasons for taking the particular shots. This type of indirect or representational report of
adjustment to kindergarten is an interesting method for gathering young children’s perspectives. Dockett and Perry (2004) have also used children’s drawings as a research tool to elicit children’s perspectives on kindergarten. Children were asked to draw and write a comment to the prompts: When I started school I… and Now I…. Children’s responses, e.g., “When I started school I felt scared Now I have lots of friends” (p. 4), and “When I started school I loved mum picking me up Now I can catch the bus” (p. 8), demonstrate the changes in how children feel about school over time. In particular these stories emphasised the memories of anxiety at the beginning of school.

Griebel and Niesel (2000) investigated kindergarten children’s responses to school in Germany using semi-structured interview questions. Children themselves decided to have group discussions rather than individual interviews and reported on their feelings when they first started school, their coping strategies for dealing with unfamiliar situations and academic challenges of school and their memories of their first days and weeks at school.

Bröstrom (2003) used observations to describe four children’s general learning and development, including their attitudes to “self-governed as well as teacher-governed activities” (p. 54). He concluded that over the school year children experienced a “loss of existing knowledge” and were at risk of seeing themselves as “passive and incompetent” (p. 61). This could result in “low-self esteem and insecurity” (p. 61) in children starting school and could be detrimental to children’s adjustment to the social and academic challenges of the formal school environment.

Indirect or representational efforts to obtain information from children on the construct of school liking include Clarke and Sharpe’s (2003) study with Singaporean children. These researchers asked children to select a face to “represent (children’s) feelings in response to questions about their likes and dislikes at kindergarten, about their happiness with features of their kindergarten, their teachers, and about making friends” (p. 19). There was no indication in this study that children’s feelings about school corresponded with parents’ reports of children’s school liking, and teachers’ perceptions were not gathered. However, the interview and questionnaire data collected from children were very similar, illustrating a degree of reliability in children’s responses.

It is evident that these authors, along with many others, understand the ability for young children between the ages of 4 and 6 years to offer reliable accounts of their feelings and attitudes toward academic, behavioural and social aspects of their lives. In
some cases children’s self-reported feelings about school were matched with teacher’s perspectives of children’s adjustment, however other research in this chapter has provided mixed or contrary evidence to this concordance between children and teachers.

**Parents’ Perspectives on Children’s Adjustment**

Many studies of school transition and adjustment incorporate parent’s views about how children (and the family) are coping during this time. Harradine and Clifford (1996) noted that parents placed more emphasis on the school-related skills their children needed to know in order to be ready for school than did teachers. Similar results were noted by Dockett and Perry (2001), who showed that parents placed more importance on children’s understandings of the rules than did teachers. However, unlike Harradine and Clifford (1996), Dockett and Perry’s research showed that parents did not place as much emphasis on the skills children needed to know at school or their overall adjustment, as teachers did.

Pianta and Kraft-Sayre (1999) surveyed over 260 parents of kindergarten children in their first few weeks of school, to obtain anecdotal evidence of both the child and parent’s reaction to kindergarten. Questions were used by interviewers to elicit descriptive information about ten aspects regarding the transition to school, and also to engage parents in open-ended discussion about how the first two weeks of school had gone. More than half of the anecdotes (53%) contained positive features of kindergarten transitions. However, many (47%) included negative features of kindergarten transitions, “which reflected difficulties during the transition” (p. 50). These negative features focused primarily on “behavioural and emotional concerns specific to the child” (p. 50) which indicated a degree of early maladjustment or school avoidance behaviours, for example tiredness, separation anxiety and displaying negative and disruptive behaviour in class. Other negative features of kindergarten transitions mentioned by parents in this study were family adjustment difficulties, unrealistic expectations by the school or teacher, and reluctance or refusal to attend school – a significant indicator of school avoidance.

Ladd, Buhs and Seid (2000) assessed parents’ ratings of school adjustment for kindergarten children by using the Parents’ Report of Children’s School Avoidance (adapted from Ladd, 1990). Parent ratings were correlated with children’s ratings of the same construct, showing parents can be a valuable source of information concerning a major part of children’s lives – the time spent at home. Parents gain insight into
children’s feelings about and reactions to the formal school environment, including their relationships with teachers and peers, their feelings about academic demands and personal competencies, and the aspects of school and classroom life they are finding difficult or stressful. Thus, parents are in a good position to comment on and provide supplementary information about the child pertaining to the emotional and behavioural characteristics of the child that teachers do not see, and children can only describe to a certain degree.

**Teachers’ Perspectives on Children’s Adjustment**

Teacher reports on school adjustment in kindergarten have been the main source of information in this field of research. Teacher reports provide information on children’s academic adjustment, social adjustment, behavioural adjustment, and more recently, emotional adjustment. A commonly used measure is the Teacher Rating Scale of School Adjustment (TRSSA- Birch & Ladd, 1997) which incorporates five subscales, including school liking and school avoidance. This measure has been used to assess teacher’s perceptions of children’s engagement in schoolwork (Valeski & Stipek, 2001), classroom participation (Ladd et al., 1999; Ladd et al., 2000) and school liking and avoidance in kindergarten (Birch & Ladd, 1997). Teacher reports of school liking using this measure of adjustment have shown correlations between dependency and conflict in the teacher-child relationship and negative school attitudes (Birch & Ladd, 1997). Children who display more dependent behaviours, for example, asking the teacher for help a lot, clinging to the teacher, needing reassurance from the teacher, are also rated by the teacher as liking school less than their more independent peers. Birch and Ladd (1997) suggest that this could be because they become overly reliant on the teacher for academic support and don’t promote their own positive peer relationships, and maybe also because they are “less mature or less ready to meet the social demands of school” (p. 74), from the teacher’s perspective.

The quality of the relationship between teachers and children has also been of interest to researchers, and has been linked with school adjustment outcomes. Teacher’s perspectives of dependency, closeness and conflict in the teacher-child relationship have been gathered using Pianta’s (1992) Student Teacher Relationship Scale. More recently, teacher and child reports of relationship quality have been used concurrently by Valeski and Stipek (2001) and Mantzicopoulos and Neuharth-Pritchett (2003). Valeski and Stipek used the Feelings About School (FAS) scale which asks children to rate their
feelings about the teacher (i.e., how much they like their teacher) and perceptions of their relationship with the teacher (i.e., how much the teacher cares about them). These authors note weak, non-significant, correlations ($r = .14, p < .10$) between children’s feelings about the teacher and teacher’s ratings of closeness (using the Student Teacher Relationship Scale; Pianta, 1992) for kindergarten children, indicating that children and teachers may be reporting on different feelings about their relationship with each other. Mantzicopoulou and Neuharth-Pritchett (2003) used the Young Children's Appraisals of Teacher Support (Y-CATS) measure to elicit children’s perceptions of their relationship with the teacher and reported similar findings. Child-rated teacher warmth and support, negative interactions with the teacher, and teacher granting of autonomy were compared with teacher’s ratings of the relationship on an early version of the Student Teacher Relationship Scale (Pianta & Nimetz, 1991). A significant correlation was reported for child-reported warmth and support and teacher’s ratings of security in their relationship with kindergarten children ($r = .23$).

The important finding to note from these studies is the weak correlation between teachers’ and children’s views of their relationship. Children’s perceptions of the teacher and the level of support they receive from the teacher, are only weakly related to teachers’ perceptions of their relationship with children and the level of support they need. This discrepancy could be explained by the types of instruments used to obtain teachers’ views. The Student Teacher Relationship Scale which relies on teachers’ ratings of observations of the behaviour children display toward the teacher (e.g., if they are cooperative), compared to the types of instruments used to obtain children’s views, which rely on children reporting their feelings toward the teacher and how the teacher makes them feel. Never the less, there is no dispute about the importance of the relationship that children have with their teacher. This will be discussed further in the next section of this chapter.

2.1.2 Interpersonal Relationships

Interpersonal relationships play an important role in children’s adjustment to school and encompasses both peer and teacher relationships. Prior to school, children have parents or caregivers close at hand to assist with forming relationships with peers and developing abilities to interact with adults appropriately. However, once children are in the formal school environment, parents are no longer accessible and school structures tend to make teachers less able to monitor and support children’s social
interactions. Children’s social readiness and social competence plays a valuable role in developing and maintaining positive relationships with significant others in their environment, as does sociability with peers. Peer sociability can be related to whether or not children begin school with the presence of a familiar peer and how accepted they are by peers when they start kindergarten, and throughout their first year. The type of relationship the child has with the teacher can also have an impact on the social adjustment process. Research has measured these constructs using child self-reports, teacher reports and classroom observations, in an attempt to include information from different perspectives of the “stakeholders” (Dockett & Perry, 2005, p. 4) in these relationships. The three major issues of social readiness, peer sociability and teacher-child relationships will be discussed below with regard to children's adjustment to school.

Social Readiness

The area of social readiness is a new concept in research into children’s social adjustment to kindergarten and school. Rather, studies on children’s academic and behavioural readiness have investigated connections with child temperament (Nelson et al., 1999; Schoen & Nagle, 1994) and emotional competence (Denham et al., 2003; Raver, 2002). Lin, Lawrence and Gorrell (2003) have commented that few studies have examined kindergarten teacher’s perspectives about children’s readiness in a social context. The concept of school readiness has been an issue of discussion and concern for parents and early childhood educators and researchers for many years; however, Kagan (1990) notes the concept of social readiness has not been included in this discussion. The policy spotlight has been on learning to read and write and a child having the necessary skills for academic achievement, and the research impetus has followed this lead, leaving a gap in the research on social readiness.

Social readiness is closely aligned with social competence, which has been defined in a number of ways. Pellegrini and Blatchford assert that an understanding of what it involves relies on considering the different types of “functioning” (2000, p. 16) children use in different contexts. They describe kindergarten social competence such as communicating effectively with peers and teachers, working cooperatively with peers, and focusing on class work. Lin, Lawrence and Gorrell (2003), using data from 3,305 kindergarten teachers participating in the Early Childhood Longitudinal Study - Kindergarten cohort 1998-1999, found that kindergarten teachers viewed preparing
children to meet social demands at school as a higher priority than their academic preparation. Social skills such as ‘tells wants and thoughts’, ‘not disruptive of the class’, ‘follows directions’, and ‘takes turns and shares’ were considered most important, whereas ‘counts to 20 or more’, and ‘knows most of the alphabet’ were considered least important (p. 233). Denham et al. (2003) report that kindergarten social competence is highly correlated with children's emotional expressiveness, emotion regulation and emotion knowledge in preschool. Children who do not cope well emotionally at a young age (e.g., age 3 or 4) are more likely to have negative social interactions and less social competence at the age of 5 or 6. In concordance with Denham et al’s proposition, Ladd (1990) recognises it may be the case “that the types of relationships children form with peers in the classroom function as a source of stress or support and shape the course of early school adaptation” (p. 1082). Ladd (1990) used interview, observation and peer nomination data from 125 children to gather information on classroom peer relationships, and early school adjustment. His findings showed early classroom peer relations were a precursor of later school adjustment in kindergarten.

A common thread in these studies shows the value of social skills and social competence even for children at a young age, and especially for children moving from the more stable and closely monitored prior-to-school environment, to the more unpredictable and challenging school setting.

**Peer Sociability**

Peer sociability refers to how children behave with others of the same age, and the extent to which children are seen as friends and accepted in social situations by their peers. Peer acceptance is associated with peer sociability as it refers to children’s relationships with their peers and “is defined in terms of (peer) group members’ sentiments toward the child” (Ladd, Kochenderfer & Coleman, 1997, p. 1183). Children who start school with a familiar peer or know someone who is already at school report being happier than those who have separated from their friends (from a prior to school setting) or who do not have a close friend (Fabian, 2000). Likewise, children who are more sociable and better liked by their peers are more likely to develop supportive and more rewarding friendships (Birch & Ladd, 1996). Ratings of peer sociability and peer acceptance have been gathered in numerous ways and are used to inform researchers of children’s likeability and social presence in the classroom.
Harter and Pike (1984) gathered children’s perceptions of social competence and acceptance using their Pictorial Scale of Perceived Competence and Social Acceptance for Young Children (PSPCSA). In this measure pictures are used to illustrate higher and lower levels of social acceptance and children are asked to choose the child in the picture who is most like them. The PSPCSA generates into four subscales including children’s self-rated cognitive competence, physical competence, peer acceptance and maternal acceptance. Although this measure was not specifically designed for use with children in schools, and has not been used in studies of school adjustment, it is concerned with the broader issue of self-concept and for this reason is important to mention.

Another approach is individual interviews with children, which have been used by Ladd et al. (1997) to obtain children’s reports of friendships within their peer group. Children were shown pictures of their classmates and asked if they had a best friend in their class. Children were also asked to sort pictures of their classmates into three categories relating to how much they like to play with them (“a lot”, “kind of”, “not much”) to measure peer acceptance. In addition, these authors assessed peer victimisation by asking children to report the extent to which they had experiences four types of peer aggression. Associations were evident between specific peer interactions and early school adjustment. Ladd and Coleman (1997) used the same type of child interviews to report “children’s experiences with classmates, particularly the relationships they form with classroom peers, have an important bearing on their adjustment to grade school” (p. 61).

Other research has investigated the positive effects the presence of a familiar peer can have, on children’s transition and adjustment. Children who have attended childcare or play group before starting school have the opportunity to develop relationships with other children. The connection between having familiar peers and adjusting to school has been examined by Ladd and Price (1987) who comment that continuity between prior-to-school and kindergarten peer relationships serve as a means of reducing levels of stress during this time, and can predict a more positive adjustment to school. In a later study, Ladd (1990) reiterated this position stating, “prior friendships may serve as a familiarisation function as children enter school” (p. 1096) as the kindergarten environment is more accommodating when children have peers that are familiar to them. Further to this, other findings on classroom peer relationships conclude that children adjust to kindergarten better when they have a friend, develop a
network of friends, or are accepted by their class peers (Fabian, 2000; Ladd, 1990; Ladd & Coleman, 1997; Ladd et al., 1996). In Australia, Margetts (1997) has focussed on the discontinuities children face when they enter school, and points out the critical significance having friends in the same class has, on making a positive adjustment to school. For example, she reports that having a familiar playmate was associated with more social skills, less problem behaviours and higher levels of academic competence.

Efforts to encourage children to develop friendships prior to starting formal schooling, and therefore ease the negative feelings associated with this one aspect of transition, have been evident in Australia and overseas. Transition to school programs, organised by individual schools and communities, have been somewhat successful in familiarising children with peers who will be starting at the same school in the following year. However, there is a limited amount of peer interaction and familiarisation that can occur between children in a few meetings over a number of weeks.

**Teacher-child Relationships**

Studies of teacher-child relationships have drawn on attachment theory (Bretherton, 1985; Howes, Phillipsen & Peisner-Feinberg, 2000), and liken teacher-child relationships to the attachment bonds that are formed between infants and parents. Mother-child, and teacher-child relationship quality has been compared by Pianta, Nimetz & Bennett (1997), who have shown the link between both parent-child and teacher-child relationship for predicting kindergarten outcomes, in a high-risk sample.

A number of studies have shown that the quality of the relationship children develop with their teachers at the beginning of kindergarten and over the first year of school is related to and predictive of children’s academic and behavioural competence in kindergarten and beyond (Birch & Ladd, 1997; Hamre & Pianta, 2001; Pianta, 1994; Pianta & Steinberg, 1992; Saft & Pianta, 2001). Warm, close relationships between children and teachers are consistently associated with positive school adjustment (Birch & Ladd, 1997; Pianta, 1999, cited in Baker, 2006). Positive teacher-child relationships provide children with the emotional security necessary to fully engage in the learning activities and scaffold the development of key social, behavioural, and self-regulatory competencies needed in the school environment (Pianta, 1999, cited in Baker, 2006). Howes et al. (2000) note that children who feel emotionally secure with their teacher can use him/her as a secure base and as a resource for exploring the learning
opportunities presented in the classroom. They emphasise the role of significant adults in assisting children in “organising their experiences” in the classroom, which increases learning (p. 1). In contrast, conflict and excessive dependency in the teacher-child relationship have been associated with poor academic outcomes and negative social behaviour in children (Birch & Ladd, 1997; Pianta, 1999, cited in Baker, 2006).

Although similarities can be drawn with children’s relationships with their caregivers in childcare prior to entering school settings, the relationship children have with their kindergarten teacher is qualitatively different to these prior to school relationships. Contextual differences, such as a lower teacher-to-child ratio, heightened teacher expectations, and the formality of the environment, lead to different dynamics for children and teachers in schools which are likely to impact the relationship. In prior-to-school settings in NSW, the ratio of staff to children is 1 to 10 or less. Familiarity with the teacher is encouraged. For example, teachers are called by their first names, and undertake activities with children. In the school setting, the ratio is one teacher to 20 to 25 students. Teachers are referred to as Miss, Mrs or Mr and are more likely to supervise or direct activities rather than join in. Children are now referred to as “students”, and as such are expected to follow rules and routines that are stipulated by the teacher and the school environment. Along with other changes that children confront when they enter school, it is these differences, and how children cope with and react to them, that contribute to children’s adjustment to formal schooling over the kindergarten year.

Studies have also noted that the quality of student-teacher relationships differ by child gender (e.g., Silver et al., 2005). Some theorists have noted the imbalances in teacher attention given to boys and girls in the classroom (Woolfolk, 2004), and the notion of gender bias in the interactions between teachers and children. Using a drawing measure to obtain the perspectives of children, Harrison, Clarke and Ungerer (2007) found that kindergarten boys were more likely to depict their relationships with teachers as less accepting than girls, and to use more negative signs in their drawings. In this study, girls were rated by their teachers as having closer relationships, while boys’ relationships were more conflicted. Howes et al. (2000) also found that teachers perceived their relationships with girls as higher in closeness and dependency than their relationships with boys. Birch and Ladd (1997) also noted gender differences in terms of the quality of relationships between teachers and children, with teachers reporting more conflict with boys and more closeness with girls. Further to this, Baker (2006)
reported that girls with positive teacher-child relationships evidenced better outcomes than boys with similar quality relationships.

In sum, the importance of accounting for gender differences in the teacher-child relationship is evident, and should be considered when seeking to explain differences in children’s academic, behavioural and social outcomes in kindergarten. Past research has provided numerous perspectives of children’s learning, achievement and social and behavioural competence, however, we are not a great deal closer to understanding how children’s feelings about adjusting to school and their emotional reactions to their kindergarten teachers impact their school experience. Only recently have children’s perspectives of the teacher-child relationship (Harrison et al., 2007; Valeski & Stipek, 2001) been acknowledged as reliable and informative, however, measurement capacity is still rather limited in this area of research.

2.1.3 Institutional Demands

The expectations of the kindergarten teacher and the primary school environment in general, are very different to anything young children have experienced before, and thus may be very different to the expectations of the child. Expectations on behalf of the teacher not only exist for children's academic and social readiness, but certain levels of behaviour are also expected once children arrive at school. Adjusting to the expectations of the teacher and the new demands of the school setting is one of the challenges that children face when starting school. The following section of this chapter focuses on the differences between teachers’, parents’ and children’s expectations of behaviour, while also examining the link between behaviour and early school adjustment.

Teachers’ Expectations

The demands of the formal school environment are different to the demands of the home or prior to school setting and dissimilarities in teacher’s expectations of behaviour, when children are familiar with a previous set of expectations, is something that some children may find difficult to adjust to. The main difference regarding school expectations is the rules of the formal school environment, compared with the rules of the home or prior-to-school environment. Dockett, Perry and others (2000, 2001, 2002) found that one of the main issues of importance for children starting school was the rules they needed to know. In contrast teachers and parents saw social adjustment, the
Nurss (1987) noted some of the behavioural and social expectations of kindergarten and their correspondence with readiness for school. For example, children are expected to follow rules, respect others’ property, and work within the space and time constraints set by the teacher. Children are also expected to follow directions, take turns, share with others, and care for their own belongings. Even though these ideas were written almost two decades ago, they are still relevant to children starting school today.

Individual teachers’ expectations can vary depending on personal and contextual factors. Lin, Lawrence and Gorrell (2003) examined the factors that affect kindergarten teachers’ views of school readiness, such as different training experiences and different social contexts in which those teachers lived. These authors found that age and geographic location were associated with readiness expectations of teachers. Gender was also associated with readiness expectations, however due to the very small percentage of male teachers, this result was neither reliable nor generalisable.

**Children’s Expectations**

Children’s views about starting school have been examined both overseas (e.g., Bröstrom, 2000; Clarke & Sharpe, 2003; Einarsdóttir, 2003; Griebel & Niesel, 2000; Peters, 2000) and in Australia (e.g., Dockett & Perry, 1999a, 1999b, 2003). Children in preschool have been asked what they think they will do when they start kindergarten, and children who have already started kindergarten have been asked what their expectations are for formal schooling. Einarsdóttir (2003) interviewed 48 five and six year old children about their expectations for primary school, what they look forward to and what their concerns were. Children’s expectations focused around the organisation and structure of the school environment, what they would be learning in primary school, and the behavioural expectations of the school environment. Children in this study thought they would learn to “behave yourself” and imagined school as somewhere that is “full of desks that you have to sit at the whole time”. They were also somewhat familiar with the structure of the school day, for example they were aware they have
"break-time" and "when the bell rings we have to go inside" and "then you go in line into the classroom…then you start doing things…” (pp. 41-42).

Bröstrom (2000) examined the changes in children's perceptions of school as children transition from prior to school settings to primary school. He explains this as being a strong emotional experience for children who have to develop a new identity as a school child. Children were aware of different expectations in preschool and primary school, which illustrated their need to adapt to the structural and academic demands of school, for example "I need to be nice and do what the teacher says. Walk to the playground, when the teacher tells me…” (p. 6). Clarke and Sharpe (2003) report similar findings from the children in their study who also reported dissimilar expectations in the academic requirements and structure of primary school, compared to preschool.

Dockett and Perry (2003) looked at children’s experience of the transition to school by asking kindergarten children (in term 3 of their school year) what new kindergarten children needed to know or know about when they were entering school. Classroom discussions were used to gather children’s views of what they themselves needed to know when they started school and photos were taken by children of places around the school that were important to them, and important to new children starting school. A feature of these photos and discussions was children’s knowledge of the school and rules and structural environment of the classroom.

Children’s expectations of kindergarten and the behaviour expected by their new teacher impact their views and reactions to the school situation. As will be discussed in more detail later, personal factors such as children’s temperament, also plays a critical role in the type of responses they have to the new expectations of school. For example, shy children may exhibit avoidant or withdrawing behaviours when confronted with stressful situations at school, whereas extrovert children may show acting-out behaviours. These types of negative behaviours could lead to negative adjustment. On the other hand, children who show effective self-directed behaviour in the classroom and cooperative and friendly behaviour towards peers will be more likely to have a more positive adjustment to the expectations of the school. Margetts (2000a) has identified child behaviour as one factor influencing adjustment to school. In her study of over 200 Australian kindergarten children, children who exhibited “frequent aggressive, anxious and restless behaviours…were more likely to experience difficulties adjusting to school than children who…rarely demonstrated these behaviours” (p. 6). Whilst this
finding is limited to some extent by being based only on teacher reports, it points to a concern about children’s behaviour that would benefit from more a research design that includes different viewpoints.

In sum, the emphasis on children’s behaviour in kindergarten conforming to school expectations is evident in both teachers’ and children’s expectations of what school students should know and do. Children's focus on the routine aspects of school, the structure of the environment and academic demands of school signifies their understanding of the differences between the prior-to-school setting and the formal school setting. Children may see rules more as routine requirements of the school and classroom, illustrated by such things such as lining up, taking turns, and sharing, whereas parents and teachers may see these types of things as just part of the bigger picture of what school is. Undoubtedly, children’s understandings of these expectations become part of children being socially and emotionally ‘ready’ for school.

2.1.4 Learning Outcomes

How children learn, their learning readiness and their level of academic achievement when they start school, is an area of concern for policy makers, teachers and parents in Australia and overseas. In 1998, the United States National Education Goals Panel articulated the goal that by the year 2000 all children in America would start school ready to learn (Bohan-Baker & Little, 2002). Even though this statement carried with it a focus on children’s cognitive skills, rather than social or emotional skills, it was an important step forward in recognising that the transition to school is a critical time in the lives of children. The research in the area of readiness sheds light on two overlapping areas: school readiness, which includes the cognitive and language skills children need to perform as a student, and learning readiness, which assumes the child has a certain level of cognitive maturity to be able to manage the academic demands of school (Carlton & Winsler, 1999; North Central Regional Educational Laboratory, 1999). As school readiness incorporates learning readiness to a certain extent, and broader issues in readiness for school have already been discussed, this section of the chapter will consider the more specific area of learning readiness. It will examine definitions of learning readiness, outcomes associated with learning readiness, and the assessment of learning outcomes in kindergarten classrooms.
Learning Readiness and Academic Competence

The focus on academic competence for children prior to starting school should not be overlooked. While emotional, social and behavioural competencies are vital for children’s early and later adjustment, the justifiable long-held belief by some parents, teachers, researchers and policy makers that children need a certain level of cognition when they begin school should also be examined.

Perry, Dockett & Tracey (1998) report some differences between what teachers, parents and children regard as being ready for school, with parents being the most focused on children’s academic readiness. Children’s academic readiness at the beginning of kindergarten has been connected with children’s successful adaptation to school, in the kindergarten year and throughout the primary years (Alexander & Entwisle, 1988). Pianta and Kraft-Sayre (2003) recognise that although children’s cognitive skills and abilities are not the most important factors contributing to a positive adjustment to school, they do play a role in accounting for some of the differences in skills among children on kindergarten entry.

In Australian classrooms it is typical that assessment of children’s academic readiness will take place in the first few weeks of kindergarten. Teachers need to assess where children's competencies lie in order to aid their programming and planning of lessons. School-based assessment tasks usually measure children’s ability to write their name and any other words they know, numeracy skills associated with counting or grouping objects, language skills, and fine motor skills such as cutting with scissors and holding a pencil (e.g., NSW Department of Education and Training, Catholic Education Commission NSW, Association of Independent Schools NSW, 1998).

Researchers are also interested in measuring academic competence and learning readiness during this early time period. The primary concern is the link between early school academic ability and engagement in learning and later school adjustment (Raver, 2003). Laevers (1994, 2003, 2004) has conceptualised young children’s engagement in the classroom in the early years through his Experiential Education theory, which includes two main dimensions; emotional wellbeing and involvement. Researchers who have measured academic competence have used teacher reports to look at children's engagement and participation in classroom activities (e.g., Hughes & Zhang, 2007; Ladd et al., 1999; NICHD Early Childcare Research Network, 2003a).

To conclude, children’s early socio-emotional competencies and early academic competencies are both known to be associated with children’s later competencies in
these areas. Although academic competence is a major focus of government policy, the connections between academic and social-emotional outcomes have been a major focus of school adjustment research. Understanding these connections from multiple perspectives will be an important development in adjustment research.

2.2 Predictors of Adjustment

Starting from the perspective of the wider social and political context, the first area of inquiry addresses school structures and programs, specifically the classroom environment. Institutional factors play a significant role in predicting children’s adjustment to the formal school environment. Both the quality of the environment and the supportiveness of the teacher and classroom are important determinants of children’s adjustment to school. The second area of inquiry relates to the family. The quality of the family environment as well as the level of communication between the family and the school can impact on children’s early school experiences and thus affect how they adjust to kindergarten. A final area of inquiry relates to the child, and factors or characteristics within the child. Children’s temperament, relationships with significant adults and prior-to-school experiences can be predictive of not only how they meet the academic, behavioural and social demands of school, but also how they cope emotionally.

2.2.1 Institutional Factors

Two specific classroom-related predictors will be examined below. The first is the quality of the environment and the impact this has on children’s adjustment to school. The second is the role of a supportive teacher in ensuring that the classroom environment is of high quality.

The quality of the early childhood classroom environment has long been recognised as an important part of childcare and preschool settings, but has only recently been looked into by researchers and policy makers with regard to kindergarten and primary school in more holistic terms. Frameworks have been developed for assessing quality in kindergarten classrooms and the idea of Developmentally Appropriately Practice has been outlined for early childhood settings by organisations such as the National Association for the Education of Young Children (NAEYC) in the U.S. (NAEYC, 1998) and the National Childcare Accreditation Council (NCAC) in Australia (NCAC, 1993).
Pianta et al. (2002) acknowledge, “Little research on classroom environment and its correlates has been conducted in public school kindergartens, despite a long record of similar research in childcare settings” (p. 226). They argue that in order to provide children with “early school experiences that enhance the likelihood of success in later years” (2002, p. 225), the focus should be not just what happens in kindergarten classrooms but how teaching and learning occurs. Despite a few efforts in the field to examine the link between quality and aspects of adjustment such as teacher-child relationships (e.g., Pianta et al., 2002), child behaviour, peer relationships and student engagement (e.g., Rimm-Kaufman et al., 2005), few specific studies of the relationship between the quality of the learning environment and kindergarten adjustment have been undertaken.

In the Effective Provision of Pre-school Education (EPPE) Project (1997-2003), Sylva (2003) examined the quality of academic aspects of the pre-school environment, such as literacy, mathematics, science and the environment, and how these factors impacted on children’s social and academic ability at school entry, year 1 and year 2. Findings showed that positive social and cognitive outcomes in the first year of school were associated with prior-to-school settings that provided a strong educational focus. These settings provided children with a combination of practitioner initiated group work and learning through free play which encouraged children to think more deeply about topics being learned (Siraj-Blatchford, Sylva, Taggart, Melhuish, Sammons & Elliot, 2003).

The contribution that classroom quality has on children's behaviour, peer relationships and student engagement has also been studied by Rimm-Kaufman et al. (2005), who demonstrated a decrease in problem behaviours (e.g., non-compliance with teacher requests and off-task behaviour) when the quality of the classroom increased with regard to structured, teacher-directed activities. They also showed that more small-group settings in quality classrooms were linked to higher rates of “social conversations and cooperation with peers” (p. 389). In light of these findings, it appears important to determine what researchers have actually done to assess quality in kindergarten classrooms, and other early year’s environments.

Quality has been measured in numerous ways including broad ratings of classroom processes, classroom structure, and teacher sensitivity (e.g., Resnick & Zill, 2003), to observational techniques to assess the incidence of different forms of teacher instruction and the degree of child engagement in the classroom (e.g., Downer et al.,
In an interesting study on quality in early childhood settings (childcare) children were asked to explain what they did at childcare, and what they liked or disliked about childcare (Wiltz & Klein, 2001). In addition to children’s own perspectives being sought in this study, the quality of the environment was also assessed using the Early Childhood Environment Rating Scale (ECERS) (Harms & Clifford, 1980; Perlman, Zellman & Vi-Nhuan) and the Classroom Practices Inventory (Hirsh-Pasek, Hyson & Rescorla, 1990). Children in centres rated by observers as being of higher quality explained that they did less teacher-directed activities (e.g., playing, and undertaking creative and dramatic activities) than children in lower quality centres who said they undertook more academic activities.

It is evident that there has been both a focus on the quality of the environment and the quality of learning and teaching within that environment in the last few years. Walsh and Gardner (2005) describe nine key themes in evaluating quality learning environments, which focus on children’s reactions to that environment: motivation, concentration, independence, confidence, wellbeing, social interaction, respect, multiple skill acquisition, and higher order thinking skills. In a similar vein, Gore, Griffiths and Ladwig (2004) have explored Productive Pedagogy as a framework for quality teaching. The latter is an approach to assessing learning environments, including kindergarten, by assessing the quality of the teaching and learning. These researchers have used the Quality Teaching (QT) framework, developed by Ladwig and King (2003) for the NSW Department of Education, in an attempt to improve the quality of teachers entering NSW public schools (graduate teachers) as well as those already teaching. Although the QT model is used in teacher training it can also be used as an observational tool to assess the quality of teaching in classrooms.

In other research aimed at identifying the quality of the learning environment for young children, Stipek and Byler (2004) outline their development of an observation measure for use with four to seven year olds, and explain the three dimensions assessed using this measure: instruction, management and social climate. The Early Childhood Classroom Observation Measure is a global measure of observable classroom components, looking at both didactic and constructivist teaching practices separately. The specific items in the observation measure “were based in part on NAEYC Guidelines for Developmentally Appropriate Practice…and in part on recent research …demonstrating the importance of close, positive relationships between teachers and students” (Stipek & Byler, 2004, p. 380). The need for a measure that could be used
with young children in more formal school situations (kindergarten classrooms) to assess the appropriateness of classroom instruction was addressed by these researchers. In addition, their inquiry into teacher’s goals and practices (see Stipek, 2004) further enhances understandings about teacher instruction and the type of classroom climate children are exposed to. It is undeniable that the type of instruction used by the teacher, and the type of classroom children are part of during kindergarten would affect how they adjust to school over this period of time.

The need for a supportive classroom environment with an emphasis not just on instructional support and encouragement but also on emotional support is evident from the research discussed in this chapter so far. Children who fail to receive this type of support when they get to school are at risk of developing negative teacher and peer relationships, and children who begin with problematic behaviours are more likely to decline behaviourally and emotionally even more.

A supportive teacher and supportive classroom environment are also important contributing factors in children’s positive transition and adjustment. Stipek and Byler (1997) note that teachers of young children make multiple decisions about children’s learning, which include the degree to which activities are teacher or child-directed, structured or unstructured, and completed in peer groups or individually. Teacher decisions also determine the emphasis on academic versus social-emotional skills and the techniques to be used to manage behaviour and to deliver lessons. Positive teaching practices, such as learner-centered activities, individualised instruction, encouragement of autonomy, and a focus on positive peer and teacher relationships, have been linked to fewer interpersonal behaviour problems and lower rates of peer rejection at the end of first grade (Donohue, Perry & Weinstein, 2003).

Debate over the types of instruction used in classrooms, especially those in the early years of school, has been addressed in some of the literature on classroom quality. Newmann and Wehlage (1993) developed a framework for ‘authentic instruction’ outlining the need for five standards of instruction to emphasise the “quality of intellectual work” (p. 8). In addition to this, Australian researchers have developed the aforementioned Productive Pedagogy framework (Gore et al., 2004) which use items from the authentic instruction framework, as a means of enhancing teacher education and subsequent in-class teaching strategies, and a Quality Teaching framework (NSW Department of Education and Training, 2003) to be used by teachers.
The amount of instructional and emotional support teachers offer to children, are key determinants of children’s adaptation to school in the first year. Hamre and Pianta (2005) found this to be especially true for children who are considered to be at risk of school failure. In this study children who displayed relational problems (for example, conflict in the teacher-child relationship) in kindergarten were more likely to develop poor relationships with their teachers in first grade. However, when these children were placed with teachers offering higher levels of emotional support (characterised by teacher sensitivity, low teacher intrusiveness, low levels of detachment, and a positive, non-hostile environment), they were no worse off than their better-adjusted peers on teacher-rated conflict. They were, in contrast, more likely to develop conflicted relationships with teachers who offered low emotional support. In addition to this, Pianta et al. (2002), rated teachers behaviour towards a target child on constructs of “sensitivity/responsivity, intrusiveness/overcontrol, and detachment/disengagement” (p. 228) using classroom observations, and reported mainly positive interactions between teachers and children.

There is also evidence that peer behaviour can impact on children’s adjustment, by affecting teacher behaviour, classroom management strategies, and other children’s behaviour. Barth and Dunlap (2005) found a classroom composed of children with higher levels of aggression, lower language skills and lower task orientation was significantly related to negative kindergarten behaviours in other children.

2.2.2 Family Factors

A second area of influence on children’s adjustment to school includes the family. Family related impacts on children’s adjustment to school are twofold. On one hand families impact on children in a more structural, practical way – through such things as parental employment, socio-economic status and the level of maternal education. On the other hand, families influence children in a more functional, social-emotional way by the way they view and support school, and the relationship they have with the child’s teacher (Pianta & Kraft-Sayre, 2003). Drawing on a social-ecological approach (Bronfenbrenner, 1979) to describe how children interact with their environment, helps us acknowledge the influences families, particularly parents, can have on children’s adjustment to kindergarten. In alignment with this approach, Kraft-Sayre and Pianta (2000) show the dynamic relationships between school, the child and the family in their Ecological and Dynamic Model of Transition.
The quality of the family environment has been associated with children’s ability to sustain attention and inhibit impulsive responding at school. These two skills have, in turn, predicted social and academic skills important for school success (NICHD Early Childcare Research Network, 2003). Father’s and mother’s parenting behaviour has also been linked to children’s academic competence and behaviour. NICHD Early Childcare Research Network (2004) found that the most competent and least problematic children, as rated by teachers, are those whose fathers are sensitive and supportive of their children’s autonomy, and whose mother’s parenting beliefs support self-directed child behaviour. An emotionally intimate relationship between parents and children is also important in increasing academic competence and decreasing problem behaviours.

Qualities of the family environment have direct links to school achievement and school related problems (Zill, 1996; cited in Rimm-Kaufman, Pianta & Cox, 2000). In Australia, research has shown having parents in full-time employment was a positive contributor to children’s adjustment to school (Margetts, 2003). This was particularly the case for fathers. Children who had fathers who were employed full-time were rated by their parents as showing higher levels of self-control and academic competence, and lower levels of externalising behaviour, problem behaviour and hyperactivity in their first year of formal schooling. Children whose mothers were employed full-time were more socially confident or assertive.

The effects of maternal education on children’s progress in kindergarten have been looked at in the U.S. through the Early Childhood Longitudinal Study. Findings show strong connections between mothers’ higher levels of education and more positive child outcomes in reading, mathematics, prosocial interactions and approaches to learning. Children from families with mothers with lower levels of education were more likely to display problem behaviours in kindergarten, as rated by teachers (Denton & Reaney, 2000; cited in National Association of Early Childhood Specialists in State Departments of Education, 2001). However, other work shows that it is more about what mothers do than their level of education per se. Supplee, Shaw, Hailstones and Hartman (2004) report a greater effect for the quality of maternal instruction on early academic and emotion regulatory behaviours for boys (specifically) at kindergarten, than maternal education. This suggests that perhaps there is a distinction between the relationship maternal education has with academic outcomes, and the relationship maternal education has with social outcomes.
Family background, as measured by socio-economic status, ethnicity and educational attainment, has been directly and indirectly linked to child achievement in kindergarten (Ladd et al., 1999). In an effort to explain this finding, the authors purport that parents with higher education and income, may place greater value and emphasis on achievement and have the financial and material resources available to enhance children’s skills prior to school entrance. It becomes apparent that practical factors within the family unit can influence specific aspects of children’s learning styles and behaviour, which can in turn affect children’s ability to adjust to and cope with the formal school environment.

Parent-related factors contributing to whether or not children will like school and perform well socially, emotionally and academically focus on two central ideas. The first refers to the level of support parents’ show toward the school and the second looks at the relationship parents have with their child's teacher.

Bröstrom (2000) argues that support from parents, the family and the community are important elements in a successful transition to kindergarten, as they help children to be ready for school. Many other researchers in the field of early education support this opinion. There is general agreement of the need to build “partnerships” between families and schools (Pianta et al., 2001, p. 117) and involve families, not only in the transition to school, but in school and classroom activities once children begin school (Bohan-Baker & Little, 2002, Sims & Hutchins, 1999). These are key techniques to ensuring that children feel positively about school. They also recognise that the transition to school can be just as stressful for parents as it can for children, and that keeping parents ‘in the loop’ regarding children’s education and in-school activities can help parents separate from their children with less anxiety and better understandings of how to help their children through the first year of school.

The second factor concerning the influence parents’ have on children’s social and emotional school adjustment concerns the relationship parents have with their child's teacher and the levels of communication between parents and teachers. In Fabian’s (2000) words, “levels of communication between school and home…are central ingredients to children settling into school” (p. 1). Pianta and Cox (1999) and Pianta and Kraft-Sayre (1999) have also considered the importance of positive relationships between teachers and parents. The aim of including parents in transition programs and continuing to keep parents informed should be a priority for both teachers and schools, so to ensure parents are fully aware of the expectations placed on them and
so they can provide children with appropriate support during the first year of school and beyond. Indeed, it is often left up to the teachers to set the procedures for parent involvement in the classroom and school.

2.2.3 Factors Internal to the Child

A final level of influence on children’s adjustment to school includes child predictors. Child related predictors are factors within the child that contribute to children’s emotional, social, behavioural and academic adjustment to school. Three child-related predictors will be discussed in this section. These include children’s temperament, relationships with significant adults and prior-to-school experiences.

Temperament

Child temperament is seen as a major influence on children’s school adjustment. Temperament is generally considered to refer to a child’s behavioural style (Paterson & Sanson, 1999; Schoen & Nagle, 1994), and is most often measured using parent ratings of children’s behaviour at home. Schoen and Nagle (1994) state that studies examining the “impact of temperament on school achievement” (p. 136) started to appear in the late 1980s and became increasingly frequent. They note, “several studies report a strong relationship among temperament attributes, intellectual performance, and achievement” (p. 136). Schoen and Nagle (1994) examined the prediction of school readiness from kindergarten temperament scores and collected data from 152 kindergarten children and 8 teachers. These authors state that many researchers have contributed to the growing body of research that demonstrates the influence of a child’s temperament on important developmental outcomes such as social-emotional adjustment and school performance.

Temperament not only affects children’s ability to regulate their emotions and cope in stressful situations, but impacts on the development and nature of interpersonal relationships. Parent-rated questionnaires, such as The Short Temperament Scale for Children (Sanson, Smart, Prior, Oberklaid & Pedlow, 1994) or the Temperament Assessment Battery for children (Martin, 1988a; cited in Nelson et al., 1999) have been used by researchers to examine the links between school adjustment, behaviour and learning variables and certain types of ‘easy’ and ‘difficult’ temperaments (e.g., Carey, Fox & McDevitt, 1977; Kyrios & Prior, 1990; Nelson et al., 1999; Paterson & Sanson, 1999).
Relationships

The relationships children form with significant adults prior to and when beginning school, can impact on how they adjust to school in kindergarten. Children’s attachments with their parents, specifically their mothers, can have a direct effect on the type of relationship they form with their teacher once they get to school.

Attachment theory was originally developed by Bowlby (1969) to explain how emotional bonds form between infants and their primary caregivers (Weede Alexander et al, 2002). There are two main dimensions of insecure attachment: Anxiety and Avoidance. Weede Alexander et al. (2002) explain that the attachment anxiety dimension refers to fear of abandonment and rejection in the context of close relationships. The attachment avoidance dimension refers to discomfort with close relationships. Separation anxiety can be defined or characterised as the distress felt by children when they are separated from those to whom they are attached, usually their mother or primary caregiver. Robbins (1997) states that separation anxiety is common throughout the early childhood years and is intensified at the commencement of formal schooling. To reduce the extent of separation anxiety young children should be encouraged to develop secure relationships with teachers to feel more confident in the classroom environment (Sims & Hutchins, 1999).

Warm and close parent-child relationships are a precursor to secure teacher-child attachments. Children who develop secure maternal attachments learn to behave responsively towards adults, which increases their chances of establishing further secure attachments (Heinicke, 1995, Rosen & Rothbaum, 1993; cited in Sims & Hutchins, 1999). Indeed there is an expectation that children, who have developed secure relationships with parents at home or childcare, are more readily able to develop positive relationships with teachers. By combining child-related aspects of adjustment with school or classroom-related aspects, children have the opportunity to adjust to school more positively with less anxiety and insecurity.

Prior to School Experience

Children’s prior to school experiences vary considerably. Some children may have attended childcare (centre-based or family day care) one to five days per week from an early age, whereas others may have undertaken a preschool program at age three or four. Some children may have spent the whole of their prior-to-school lives in the home environment with a parent or other caregiver, and may not have attended
centre-based care programs. Childcare and preschool are not compulsory in Australia; hence for some children, kindergarten may be their first experience in a formal learning environment with rules, routines, teachers and other children of the same age. Researchers have found children with more comprehensive preschool experience tend to adjust to kindergarten more effortlessly (Gullo & Burton, 1992, 1993). Prior-to-school settings provide children with opportunities to develop their social competence and gain a preliminary awareness of the routines of a more school-like environment. Thus, when children make the transition to formal schooling they may be better equipped to cope in social and academic situations than children who may not have had this type of prior-to-school experience.

Fabian and Dunlop (2002) argue that in order to become social members of the school environment, children require a certain level of social understanding. Prior social experiences and interactions with adults and peers are important contributors to children’s social competence when they reach school.

In sum, certain factors within the child, such as their temperament, their prior-to-school experiences and the relationships they have formed prior to starting kindergarten, play an important role in how children adjust to the social and emotional requirements of formal schooling. These types of factors need to be taken into account when examining the process of adjusting to school and children as active participants of that process.

2.2.4 Chapter Summary

In conclusion, the literature in the areas of school adjustment, transition and readiness has been drawn on to illustrate the process of adjusting to school and the personal, interpersonal and institutional factors that contribute to a positive adjustment. Children’s emotional wellbeing throughout the first year of school is of importance, and is not only affected by the types of experiences children encounter once they get to school, but also the types of coping experiences and strategies they bring with them to school. Recognising that children are at the centre of the process of adjusting to school and including them as primary contributors in the research process is fundamental. The following chapter presents theoretical frameworks for school adjustment, which will provide the basis for the study design, data collection and analysis.
3 THEORETICAL FRAMEWORK

Children’s adjustment to school has been described in the literature as a developmental transition (Belsky & MacKinnon, 1994). Thus a range of developmental perspectives can be drawn on to examine this period in a child's life. Belsky and MacKinnon (1994) and others (e.g., Entwisle et al., 1986; Ladd & Price, 1987) state that a thorough understanding of the transition-to-school and early-schooling process requires a well-conceptualised model of what the child brings to school and the effect of this prior knowledge and experience on the child's developmental trajectory and experiences while in school. Similarly, personal, interpersonal and institutional aspects of children’s adjustment to school are inter-linked rather than separate. One aspect does not exist or impact the child on its own. In order to understand the process of adjustment to school and to analyse aspects of adjustment over time, it is important to ground research in an appropriate theoretical framework. In this chapter, models of school adjustment will be reviewed and drawn on to develop a model of school adjustment that will underpin the current research design and guide the methodology of the study.

3.1 Models of School Adjustment and Transition

Developmental changes in children’s lives have been investigated by taking an ecological perspective, which acknowledges the multiple influences on children’s development (e.g., Bowes, Harrison, Wise, Sanson, Ungerer, Watson & Simpson, 2004; NICHD Early Childcare Research Network, 2003). An ecological perspective places children at the centre of the process and takes into account the variety of environmental factors which impact on the process of transitioning and adjusting to school. It also refers to the interactions between people and their environment and how those interactions are experienced. The environment, in which children’s development occurs, is outlined by Bronfenbrenner and Morris’ (1998) social-ecological model of human development. This model is based on Bronfenbrenner’s original work (1979), which set out to explain the way development occurs in context. Four principal components, the microsystem, mesosystem, macrosystem and exosystem, and the “dynamic, interactive relationships among them” (1998, p. 994), are presented in the model, which seeks to illustrate the process of how they are linked to the person over time. The environment in which the person lives is a key feature of the context of development, and again, something that changes over time. Bowes and Hayes (2000) note the addition of the
“chronosystem” by Bronfenbrenner, which represents the change over time in individuals and contexts (see Figure 3.1).

**Figure 3.1: Bronfenbrenner’s Social Ecology Model adapted by Bowes and Hayes (2000)**

Bronfenbrenner’s ecological approach has been employed by other researchers to model the process of transition and adjustment to school (e.g., Birch & Ladd, 1996; Bröstrom, 2003; Dockett & Perry, 2001; Dunlop, 2002; Rimm-Kaufman & Pianta, 2000). In Australia, pivotal research into children’s development, the Longitudinal Study of Australian Children (Sanson et al., 2002; Wise, 2002), has used an ecological perspective so to ground the research in theory and practice, as has the Child Care Choices project in Australia (Bowes et al., 2004).

A limited number of specialised models have been proposed by researchers to explain either the process of transitioning to school or the process
of adjusting to school. The current study draws on aspects of three models. Of these, one identifies the factors affecting school adjustment and two describe the transition process. The adjustment to school model (Birch & Ladd, 1996) emphasises the predictors of school adjustment and how they contribute to adjustment outcomes. The transition models (Dunlop, 2003; Rimm-Kaufman & Pianta, 2000) take a process approach to transition and draw on a Bronfenbrenner perspective to examine not just what happens during the transition to school, but how things happen.

3.1.1 Adjustment to School Model

Birch and Ladd’s (1996) elaborated model of early school adjustment (see Figure 3.2) focuses on one aspect (or microsystem) of the Bronfenbrenner model, the child, family, school intersection, but also recognises the role of other aspects of adjustment. Motivation for the development of this model also came from attachment theory, and was based on the author’s assumption that “successful school adjustment originates in the child as well as the interpersonal environment” (p. 199). This model includes two main precursors of adjustment: child characteristics and interpersonal relationships. Child characteristics are considered both a predictor to school adjustment on their own, and a predictor to interpersonal relationships, which in turn predict school adjustment. Within each of these major areas of influence lie different factors that affect adjustment both directly and indirectly. Child characteristics include psychological factors, organismic factors and behavioural factors, which have been shown in the literature (e.g., Denham et al., 2003; Harter & Pike, 1984; Lin, Lawrence & Gorrell, 2003) to be important predictors of school adjustment.

School adjustment is represented by a number of aspects. Children’s perceptions of the school environment, for example school liking and social support, are included and are qualities of school adjustment which have been supported by research (e.g., Harrison, 2004; Ladd & Price, 1987; Ladd & Coleman, 1997). Children’s feelings about school (affect), engagement at school (involvement), and academic achievement (performance) also play an important role as adjustment outcomes in this model.

Interpersonal relationships, both in school and out of school, have also been shown to relate to adjustment (e.g., Fabian, 2000; Hamre & Pianta, 2001; Ladd, 1990; Margetts, 1997; Pianta, 1994). The relationships children develop with peers and teachers once they begin school are considered in this model as well as relationships
with other relatives and neighbourhood peers. These relationships can contribute to children’s emotional and social support network, and depending on whether that impact is positive or negative, can serve as a stress-reducing or stress-increasing factors.

**Figure 3.2: Birch & Ladd’s (1996) elaborated model of early school adjustment**

![Diagram of Birch & Ladd’s model]

**Psychological Factors**
- **Types**
  - School: Classroom Peers, Teachers
  - Non-school: Parents, Other Relatives, Neighborhood peers
- **Perceptions**
  - School Liking, Social Support
- **Affect**
  - Loneliness, Anxiety
- **Involvement**
  - Avoidance, Engagement

**Organismic Factors**
- Gender
- Mental Age
- Language Ability

**Behavioural Factors**
- Social Skills
- Academic Skills

**3.1.2 Transition Models**

**Ecological and Dynamic Model of Transition**

Rimm-Kaufman and Pianta’s (2000) Ecological and Dynamic Model of Transition, presented in Figure 3.3, was also informed by Bronfenbrenner’s bioecological model. Similar to Birch and Ladd’s model discussed above, this model emphasises the “development of relationships over time” (p. 499) and across two contexts, preschool and kindergarten. This model represents two types of microsystems included in Bronfenbrenner’s bioecological model, the preschool and school. It shows...
the interaction between the child, teacher, peers, family and community (neighbourhood) over time, from preschool to school. The interconnections between stakeholders are evident, as is the placement of children at the centre of the transition process. The effect of peers on positive adjustment as well as the teacher and parents, is evident in the model as well as the impact of the community or neighbourhood in which the child, school and family are situated.

*Figure 3.3: Rimm-Kaufman & Pianta’s (2000) Ecological and Dynamic Model of Transition*

**Systems Model of Transition**

The second model of transition influencing the proposed model of adjustment is Dunlop’s (2003) Systems Model of Transition (Figure 3.4). This model is largely based on Bronfenbrenner & Morris’ (1998) bioecological model. The child sits within the microsystems of home, preschool and school, and not only interacts with the three physical environments, but also interacts socially and emotionally within these environments. The child and their more immediate systems are then situated within a community at a local and more distant level. This model “reflects the possible agency of children in the transition process, and attempts to show the importance of the child’s agency in the interrelatedness of the ecological systems approach as applied to early years transitions” (2003, p. 71).

Dunlop’s model elaborates on other models of transition and adjustment by identifying the specific influences within the school, preschool and home environments that affect children’s transition, and by presenting the overarching influences in children’s transition to school. The specific contribution of home and the relationship between school and home are made more explicit in this model than previous models of adjustment or transition. Like Rimm-Kaufmann and Pianta’s (2000) model, Dunlop
includes the interconnections between school and preschool, home and preschool, and school and home. Dunlop suggests children, teachers and parents co-construct their transition experiences, within the cultural context in which they live. This model is used to inform the current research by not only encouraging the consideration of children as an important part of the adjustment process, but also by encouraging children to have a voice to describe their perspective of that process.

*Figure 3.4: Dunlop’s (2003) Systems Model of Transition*

### 3.2 Process Model of Child Adjustment across the First Year of School

The current study was broadly based on a bioecological approach (Bronfenbrenner, 1979; Bronfenbrenner & Morris, 1998) to place children at the centre of the process of adjusting to school, while recognising that children are individuals who operate within a number of contexts, not independent from external factors. The study also draws on specialised models of transition or adjustment which emphasise the
importance of relationships and the need to include multiple perspectives of adjustment from key stakeholders in the process: children, parents and teachers. The features of the current model will be discussed below.

Figure 3.5 presents the Process Model of Child Adjustment across the First Year of School. There are six main facets considered in this model: the child, the family, interpersonal relationships, school adjustment, the school and classroom context and the community context. The unidirectionality of the arrows is used to depict the effect that each dimension of adjustment has on each other, and to provide a guide for the future testing of the model. For example, it is proposed that the child and what he/she bring to school, which has a direct influence on their development and psychology, has a direct impact on the types of interpersonal relationships they develop at the beginning and end of the kindergarten year, as well as their degree of early and later school adjustment.

The six facets will be examined in detail to describe reasons for their inclusion in the model. Following this, the process of identifying the interrelationship between domains will be examined.

Figure 3.5: The Process Model of Child Adjustment across the First Year of School

3.2.1 The Child

Children are at the centre of this model as they are not only central to the process of adjusting to school in kindergarten but they are expected to be an integral part of the process of adjusting and an active agent in their own adjustment to school. Dunlop
(2003b) has expanded on the idea of the possible agency of children in the transition to school, and uses this term to illustrate the active role children play in transitioning to school. The child in this model represents what the child brings with them to school (Birch & Ladd, 1996) that impact on adjustment outcomes.

These child factors include gender which is known to influence the quality of teacher-child relationships (Baker, 2006; Birch & Ladd, 1997; Howes et al., 2000), temperament styles and behaviour, which have been shown to affect way that children react to and cope with new and stressful situations at school (Margetts, 2000a; Nelson et al., 1999; Rimm-Kaufman et al., 2005), and prior-to-school experiences, including whether or not they have attended preschool or day care or have familiar peers when they enter school. Prior to school experiences can affect how children cope socially once they get to kindergarten (Ladd, 1990; Ladd & Price, 1987; Rimm-Kaufmann & Pianta, 2005). In addition, child characteristics of mental age and language ability are included as these have been found to influence how children adjust to the academic demands of school (Birch & Ladd, 1996; Carlton & Winsler, 1999).

### 3.2.2 The Family

The structure and nature of the family has an immediate and ongoing impact on the child and their subsequent adjustment to school. Three interrelated characteristics of the family act as contributing factors in children’s adjustment: Family socio-economic status, maternal education and parental employment.

Family socio-economic status (SES) has been linked to school adjustment for young children (Ladd et al., 1999). A key indicator of SES is maternal education, which has been incorporated in the model, and provides a strong measure of family advantage/disadvantage. Parental employment also has links with maternal education and SES as parents who are more educated are more likely to make a higher contribution to the household income. Children whose parents work full-time have been shown to have more positive adjustment outcomes (Margetts, 2003). It is possible that parental employment is linked to the resources available in the home and parents’ ability to support children's learning.

### 3.2.3 Interpersonal Relationships

Interpersonal relationships between teachers and children, children and their peers, and teachers and parents have been included in this model as they are highly
important to both children’s early and later school adjustment. All of these types of relationships have been shown to impact on how children adjust to school over the first year, and in following years (Birch & Ladd, 1997), therefore interactions between and among these relationships have been represented in the model.

Attachment theory has been used to explain the type of emotional bonds children form with significant adults (their parents and teachers) and any investigation into the quality of the teacher-child relationship should be firmly grounded with attachment theory in mind. The quality of teacher-child relationships in kindergarten is related to positive academic and behavioural outcomes for kindergarten children, and positive relationships between children and their teacher has been connected to positive school adjustment (Birch & Ladd, 1997; Hamre & Pianta, 2001; Harrison et al., 2007; Pianta, 1999; cited in Baker, 2006).

Peer relationships play an important supportive role in children’s adjustment to school. Dockett and Perry (2001), among others (Birch & Ladd, 1997; Ladd et al., 1999), have recognised the effectiveness of positive peer relationships on reducing stress and coping with new social demands in the formal school environment. Ladd (1990; cited in Juvonen & Wentzel, 1996) reported peer rejection as a contributing factor to negative perceptions of school, and idea backed up by Slee and Rigby (1994) and Ladd et al. (1997). Whether or not parents provide children with opportunities for peer interaction prior to starting school (Pianta et al., 2001) can contribute to children’s ability to form close interpersonal relationships.

The relationship between teachers and parents is yet another facet of the interpersonal relationship sphere of influence. The quality of the relationship between parents and teachers has been found to influence children’s ability to settle into school (Fabian, 2000), and encourages parents to value school and provide necessary support for their children when starting kindergarten (Pianta & Cox, 1999; Pianta & Kraft-Sayre, 1999).

Early and later interpersonal relationships have been included as two separate, but inter-linked domains in the proposed model. This is to signify the dynamic and changing nature of relationships between children, their peers, and their teachers over the course of the first year of school. The relationships children form with their new teachers and new peers at the beginning of the year, the level of support offered within these relationships throughout the year, and how these relationships develop over the
year provide important information about the impact relationships have on children’s adjustment to school.

3.2.4 School Adjustment

School adjustment is included in the model as one domain of overall child adjustment and represents the academic and social/emotional aspects of adjustment the child progresses through the first year. The early and later school adjustment domains are considered to represent adjustment processes that occur throughout the first year, and concurrently with the early and later interpersonal relationship processes. Together, the child, family, interpersonal relationship and school adjustment domains represent the major domains of overall child adjustment over the first year of school. School adjustment is categorised in two broad areas in the process model of adjustment: social/emotional adjustment and academic adjustment. These three areas are closely linked to Birch and Ladd’s (1996) elaborated model of early school adjustment which has identified perceptions, affect, involvement and performance as four specific aspects of school adjustment.

Social/emotional adjustment represents children’s social competence, such as their self-perceived competence in peer situations, and emotional processes such as their feelings about school and ability to regulate their emotions. Children’s emotional development plays a major part in their successful adjustment to school as children’s ability to manage the stressful demands of the school environment is dependent on their capacity to regulate their emotions and have appropriate strategies for coping with new experiences (Eisenberg et al., 1997). Early emotional responses, such as anxiety following the transition to school and negative feelings about school at the beginning of the year, can have major negative effects on children’s adjustment to school over the first year.

Academic adjustment represents children’s achievement in learning and engagement at school. Academic achievement and engagement in the first year of school has been linked to children’s successful adaptation to school in the first year and beyond (Alexander & Entwisle, 1988) and children having more positive peer relationships (Margetts, 1997) and teacher-child relationships (Birch & Ladd, 1997).
3.2.5 School and Classroom Context

The school and classroom context surrounds child factors, family factors, early and later interpersonal relationships, and early and later school adjustment. Every aspect of children’s adjustment to school occurs within the contexts of the school and classroom and is impacted by characteristics of these environments. The classroom context incorporates two main factors: the quality of the learning environment, and the supportiveness of the teacher and classroom environment. The quality of the learning environment refers to how teaching and learning occurs in classrooms, as opposed to what teachers are teaching and what children are learning. Classroom quality has been shown to have an influence on peer relationships and student behaviour (Rimm-Kaufman et al., 2005), as well as teacher-child relationships (Pianta et al., 2002). In addition to this, Burts et al. (1990) found children in higher quality classrooms exhibited less stress-related behaviours, which would affect children's adjustment to school.

The need for an emotionally supportive as well as academically and socially supportive classroom also falls within the context of school. Again, peer and teacher relationships are affected by the degree of support within a classroom context (Donohue, Perry & Weinstein, 2003; Hamre & Pianta, 2005), affecting school adjustment outcomes at the end of the year.

Adjusting to the classroom and school context is one of the major challenges for children during the transition to school. This context is most different to the home or even preschool or child-care environment. This is the place where many of their peer and other social interactions and learning takes place, not only in kindergarten, but also for many years to come. It is in this context, which changes to improve the transition and adjustment process is able to take place.

3.2.6 Community Context

Community-level influences are significant contributors to children’s development (Australian Institute of Family Studies, 2004). The overarching layer of community in the process model of child adjustment can be compared with combining Dunlop’s (2003) “exosystems” and “macrosystems” (p. 70) encompassing both the local and wider influences on education and development. Influences on the child, family, and school context that are often out of the immediate control of these stakeholders, include such things as availability of prior-to-school care and education, local transition programs, cultural background, geographical location, government...
policies, community values, social ideologies and other social and health services. These two systems have been combined in the current model to demonstrate that some of these features of community are not as far removed from the immediate school and family environment as one might think. Government policies with regard to transition to school have a direct impact on the amount of time teachers are allocated to developing and running transition and orientation programs, and in turn, a direct impact on the level of support the child and family receives throughout this process.

3.2.7 Process of Examining the Interrelationships between facets of School Adjustment

The interrelationship between the six components of the process model is identified by the arrows in the model which show hypothesised directional effects. The model addresses the over time relationships between early child adjustment outcomes and later child adjustment outcomes. It can also be seen in the model, that child and family factors have a direct effect on early and later interpersonal relationship factors and early and later school adjustment factors.

Further to this, the model shows the proposed influence of early interpersonal relationships on later interpersonal relationships, as well as early school adjustment outcomes. Early school adjustment and later interpersonal relationships are proposed to effect later school adjustment.

School and classroom factors are expected to have an impact on both early and later interpersonal relationship outcomes and early and later school adjustment outcomes. An even broader influence presented in the model is the context of community, in which all facets of adjustment are situated.

3.2.8 Using the Process Model of Child Adjustment across the first year of school

The development and examination of the process model of child adjustment, indicates the need for a comprehensive assessment of all issues impacting children’s adjustment to school. Measurement techniques that mirror the conceptual model by placing the child at the centre of the research, and which include perspectives from the three major investors in school adjustment: the child, the teacher, and the parent; is the next step. The need to consider all areas of adjustment in developing and utilising already existing techniques to measure adjustment, and choosing appropriate methods to critically analyse data gathered is highly important.
3.2.9 Chapter Summary

This chapter, and the previous Review of Literature chapter, have shown a gap in the current methods of measuring children’s perspectives of the emotional adjustment they make when starting school and their self-reported coping strategies over time. It is the intention of this thesis to fill that void and to focus on the process of adjustment for the child. Additionally, examining adjustment in a holistic manner, by using the proposed model of school adjustment as a framework for analyses, and using both existing and new measures to assess all components in the design of the model is a goal of this thesis.

The need for a new measure which puts children at the centre of the process of adjustment by including their views and facilitating their agency in the process of adjustment is of significant importance. The proposed model of school adjustment has drawn together the research in the area of school adjustment and will be used to achieve the aims set out in the introduction of this thesis.

The following chapter will present the design and development of a new measure of school stress, which will draw out children’s views of their kindergarten experience and contextualise their reactions to the formal school environment.
4 DESIGN AND DEVELOPMENT OF THE PICTORIAL MEASURE OF SCHOOL STRESS AND WELLBEING

The Pictorial Measure of School Stress and Wellbeing was designed to fill an identified gap in research methodology in the area of school adjustment, in particular, to provide a means of assessing children’s perspectives on their experience of school. This chapter summarises the ways that past research has measured children’s adjustment to school, and presents a rationale for the development of a new measure. The chapter then describes the design and development of the Pictorial Measure of School Stress and Wellbeing (PMSSW), and its use of everyday situations and challenges that children face during the process of adjusting to school. This is followed by a description of the development of the coding system for the PMSSW, which drew on an interpretive analysis of children’s responses.

4.1 Measuring School Adjustment

There is a consensus among most researchers in the field that there is a need to include children’s perspectives on their experiences of starting and adjusting to kindergarten (Dockett & Perry, 2003; Einarsdóttir, 2003; Griebel & Niesel, 2000). A small but growing number of researchers have included children’s perspectives or feelings about school and the teacher, and their perceptions of peer acceptance and self-competence (Dockett & Perry, 2003, 2005; Ladd & Coleman, 1997; Lapp-Payne, 2005; Valeski & Stipek, 2001). To date, two broad types of measures have been developed to assess constructs relating to adjustment to school. The first group tend to measure ‘global’ constructs such as general school and teacher liking (e.g., Birch & Ladd, 1997). The second group addresses specific aspects of children’s perceptions of school (e.g., Dockett & Perry, 2003; Valeski & Stipek, 2001).

Keeping these issues in mind, two central themes regarding the measurement of children’s transition experiences and adjustment to school will be reviewed. First is a review of the direct and indirect measurement techniques that have been used to examine school adjustment from the child’s perspective. Second is a discussion of the correspondence between children’s views of school, and teachers’ and parents’ views of children’s progress in kindergarten using teacher and parent reports of school adjustment outcomes.
4.1.1 Direct and Indirect Measurement Techniques

The types of approaches used to measure the personal, interpersonal and institutional aspects of adjustment have been touched on while reviewing the literature in each particular area, however further discussion of specific measurement techniques and whether the overlap between these methods is warranted.

Specifically, methods to measure school adjustment have included teacher and parent reports of children’s behaviour (Pianta & Kraft-Sayre, 1999), social skills (Lin, Lawrence & Gorrell, 2003), school liking (Harrison, 2004; Ladd & Price, 1987) and academic competence (Gest, Welsh, & Domitrovich, 2005). Ratings by significant others, socio-metric techniques, rankings by teachers or peers, self-report measures, role-play tasks, behavioural interviews and naturalistic observations have also been identified as techniques used to measure adjustment outcomes (Margetts, 2000b).

The Teacher Rating Scale of School Adjustment (Birch & Ladd, 1997) is a measure used widely to rate aspects of children’s school-related behaviour on a closed-ended, pre-set scale. Although this measure is a useful tool to gather teachers’ perceptions of children’s school adjustment, this type of scale does not give a direct assessment of children's perspectives. Studies that have used child-report measures, such as the School Liking and Avoidance Questionnaire (Ladd & Price, 1987) and the Feelings About School scale (Valeski & Stipek, 2001), have provided more global ratings of children’s perspectives about school, learning, and friendships. These measures ask children to rate their experiences on a pre-set group of categories, and do not ask about personal perceptions of school stress or the specific events that may be associated with school adjustment.

Recent studies have drawn on qualitative approaches to identify children’s views and attitudes toward school and their coping strategies for stressful situations. Griebel and Niesel (2003) examined specific aspects of children’s reactions to school and state that children in kindergarten are able to learn how to cope with stressful school situations. They also note that teachers play a large role in providing children with the coping strategies and knowledge to “realise one’s own reactions to stress and what to do” (p. 29). The case study approach used in this study generates interesting data which can be used to offer a more holistic picture of the adjustment process. Griebel and Niesel (2000) recognise it can be difficult to distinguish between reality and fantasy in a child’s statement, which highlights the importance of using appropriate techniques that correspond to the child’s level of cognition and understanding. Methods for obtaining
data from children fall into two major categories: direct techniques and indirect or representational techniques.

Direct methods are those that elicit information from children by using direct questioning, self-report questionnaires, and rating scales that are usually administered to children as part of an interview. These methods are commonly used with older children who have higher levels of cognitive ability. Indirect or representational methods are those that elicit information from children in an indirect way and include such things as puppet interviews or role-play tasks, and pictorial scales. Children’s ability to project their own feelings onto children in a picture or story is also included in this type of indirect method. Projective techniques are important when investigating issues which may be confronting to children, such as how they are feeling in specific circumstances, and which are based on children's emotions. Cameron (2005) explains the importance of extending the formal interview process to include techniques which engage the child in something other than discussion or answering questions. Projective techniques encourage the child to think more deeply about emotional issues, and can include the use of puppets, storytelling, drawing or illustrations to support children in explaining their ideas.

Some of the more innovative research methods have included parents conducting interviews with their children (e.g., Clarke & Sharpe, 2003), children being asked to take photos of places at school that are important to them and to explain reasons for their choices (Dockett & Perry, 2003), and peers assessing children’s social competence and acceptance (Ladd & Coleman, 1997). Clarke and Sharpe (2003) recruited parents in Singapore to interview their own children with specific questions about their likes and dislikes in kindergarten, and what made them happy in kindergarten, their teachers, and about making friends. Spitzer, Cupp and Parke (1995) used peer nominations to assess children's social competence and acceptance in kindergarten, by showing children photos of other children and asking them to rate how well they played with others and how much they liked them.

The majority of studies still rely on parent and teacher ratings of adjustment and the factors affecting adjustment. Innovative methods of inquiry that place children at the centre of research and acknowledge their voice in the process of adjusting to school are not commonplace. It may be the case that young children are not as able to explain their thought processes or ways in which they might deal with school situations as older children might be. However, with research methods that harness children’s strengths at
an early age, and encourage children to elaborate on their thoughts in an explicit and strategic way, informative and reliable data can be collected from young children.

4.1.2 Associations between teacher, parent and child ratings of adjustment

The literature that is reviewed in this section of the chapter examines whether or not children’s views of adjusting to school present a similar picture of the adjustment process to that reported by teachers and parents. Children’s ratings of school liking, school avoidance, their academic and social competence and their relationship with the teacher have corresponded with teacher’s views of school adjustment and the teacher-child relationship to a certain extent (e.g., Harrison, 2004; Pianta, 1994). However, even though correlations were significant they were relatively small in magnitude indicating that most of the variance in these ratings is not accounted for. Further research needs to be conducted to determine whether the disparity in children’s and teachers’ views of similar constructs can be attributed to some sort of measurement difficulty.

Parents have also been included as informants on children’s transition to school (e.g., Pianta & Kraft-Sayre, 2003). Although they have been included in longitudinal research that examines children’s social competence in the early years of school (NICHD ECCRN, 2003), they have not been included in longitudinal research that looks specifically at children’s school adjustment over time. Rather, parents have provided information about children’s behaviour and peer relationships outside of school, their prior-to-school experiences (i.e., whether or not they attended childcare/preschool), as well as data about the home environment, family structure and socio-economic status of the household. Including parents in future research as informants of demographic or family-background information and socio-emotional characteristics of the child, as well as children’s adjustment to school, will provide a more comprehensive view of the child and their early school experiences.

4.1.3 Summary

Although studies of school transition have examined children’s differing views about the academic, social and behavioural demands of school (e.g., Starting School Research Project: Dockett & Perry, 2001, 1999; Howard et al, 1999; Yeo & Clarke, 2005) children’s perceptions of school stress and emotional well-being at school, especially in kindergarten, have not been assessed. Similarly, studies of school adjustment have measured children’s feelings about school, the teacher, and academic
achievement (Ladd et al., 1999; Ladd & Price, 1987; Valeski & Stipek, 2001), but children's feelings about specific aspects of their school have not been included.

Collecting information from all who are involved in the process of children’s adjustment to school, and combining data to obtain a more holistic view of adjustment and how each “stakeholder” (Dockett & Perry, 2005, p. 4) views the process for children, will lead to a better understanding of adjustment.

4.2 Design and Development of the Pictorial Measure of School Stress and Wellbeing

The design and development of a new measure of school stress and wellbeing will be discussed in this section of the chapter. A rationale for the design of the Pictorial Measure of School Stress and Wellbeing will be presented along with an examination of the content of the pictorial measure, and the method of presentation for the instrument. The complete Pictorial Measure of School Stress and Wellbeing manual is presented in Appendix D.

4.2.1 Rationale

The Pictorial Measure of School Stress and Wellbeing (PMSSW) was designed to add to the small number of existing approaches that involve young children as primary participants in reporting on issues that are directly related to them. The aim was to measure school-related stress and wellbeing by assessing children's perceptions of specific school situations. The instrument contextualises children’s perspectives and uses qualitative methods to encourage children to express how they feel about typical situations at school and what strategies they would draw on to cope in these situations.

The pictures present everyday situations that all children are familiar with, and the questions allow the detection of individual differences in the degree to which these situations are perceived as stressful.

Previous research has shown that the everyday anxieties and stresses that children experience at school can be caused by many different factors. Managing a new and complex physical environment is one factor that can contribute to children’s anxiety about school. Children who are unfamiliar with the school setting and unfamiliar with the social and behavioural expectations of the school environment can have difficulty adjusting to school. Learning the rules and routines of the formal school environment is a large part of understanding the behavioural and social expectations of teachers and the
school as a system. If children have difficulty understanding what it required of them at school, and have difficulty meeting these requirements, they may be at risk of maladjustment.

In addition to this, the increased emphasis on academic achievement once children start formal schooling can be a stressor in the new school environment. Prior to school, much of the curriculum focus is on children’s development in social, emotional and physical domains, however once children start formal schooling, the focus lies more on their ability to undertake academic tasks with success.

The PMSSW was designed to anticipate the specific demands on children as they start school, and measure children’s feelings about these demands. It is different to existing measures that ask children to rate their feelings about school (e.g., Feelings About School scale; Stipek & Byler, 2001; School Liking and Avoidance Questionnaire, Birch & Ladd, 1996), as it allows children to respond in a more open-ended manner and elaborate on their feelings. It is also different to other measures as it asks children to think about a range of different school scenarios rather than to make global judgements. Their feelings about these specific and concrete situations are also referenced to how they relate to the teacher.

The preliminary stages of developing the PMSSW were informed by a small scale qualitative study that used informal interviews with six children in their first year of school. The children were asked to describe how they felt about different aspects of certain school that were stressful for them, such as going to the toilet by themselves. In addition, classroom observations, as well as issues covered in the research literature on stress and anxiety, added to the development of the scenarios. A pilot version of the PMSSW, used in an Honours research project, included seven school scenarios and five questions about each scenario which were generated from this development phase (See Appendix C; Murray, 2003).

Previous studies of children's emotional responses to school have demonstrated that children are effective reporters of how they feel about school in general or about school-related learning and friendships. Children’s self perceptions have been tested through pictorial measures, such as Harter and Pike’s (1984) Pictorial Scale of Perceived Competence and Social Acceptance, which uses line drawings to depict typical situations at home and with friends. However, this measure was not designed to assess affective perceptions and does not focus on school situations. These measures, while identifying negativity towards school, do not provide a measure of child stress.
and wellbeing. The area of attachment was drawn onto inform the theoretical base for developing a measure. The attachment literature is known for its study of children’s affect and includes many examples of methodology which encourages children to discuss stressful emotional events. In particular, measures that drew on Bowlby’s theory (1969/1982) were examined to investigate responses to stressful situations of separation from parents in school-age children; for example, the Separation Anxiety Test (SAT) (Shouldice & Stevenson-Hinde, 1992; Slough & Greenberg, 1990), the Separation Anxiety Test – Early Adolescents (SAT-EA) (Resnick, 1993), the Pictorial Instrument for Children and Adolescents (Ernst, Cookus & Mora Vec, 2000), and story completion tasks (Main, Kaplan & Cassidy, 1985). These measures have used pictures and typical events to ask children quite difficult questions about themselves, their feelings and experiences. In the SAT and SAT-EA, children’s responses to stressful situations about attachment relationships are recorded as a narrative and scored by reference to predetermined categories that describe difference levels of affect.

4.2.2 Content

In the present study, it was felt that a pictorial measure would be appropriate for presenting situations at school that children might perceive as being associated with negative feelings. In designing and contextualising the measure, everyday situations were identified that children would find more or less stressful and which could elicit information about children’s self-reported perceptions and feelings about school as well as the types of strategies children draw on to cope with typical situations at school.

The version of the PMSSW that was used in the present study was designed to assess children’s adjustment to the personal, interpersonal and institutional demands of school. Four personal scenarios were used to present out-of-class experiences. Although not directly facilitated by the teacher, these types of scenarios require the child to have some degree of independence, and also some knowledge of the rules and routines of school. Three interpersonal scenarios were included to present social situations involving peers. These scenarios were included to encourage children to focus on their feelings about familiar and unfamiliar peers and think more deeply about their relationships with peers. Three institutional scenarios were included to present in-class experiences. These scenarios were directly facilitated by the teacher in the classroom, and include both group and individual experiences. The constructs of academic
competence, conforming to the rules and routines of the classroom and school, and liking of school activities were assessed through these scenarios.

Personal, interpersonal and institutional aspects of adjustment were also tapped by the questions included in the PMSSW and asked of each scenario. Children were asked the same five questions to each scenario which were used to encourage children to explain their feelings about school scenarios, their relationship with the teacher, and their strategies for coping with school situations. Constructs relate to the response categories reported by Dockett and Perry (2001), which are drawn from children, parents and early childhood educators. Children’s perspectives were gathered by not only including a large number of children in research conversations about starting school, but also by asking children to take photos of important places in their school, or places which were of significance to them for some reason. These researchers stated that children rated rules to be the most important issue for them when starting school, followed by disposition, social adjustment, knowledge, physical factors and finally, skills. Parents and early childhood educators differed somewhat in their ratings of important issues. The following table shows Dockett and Perry’s response categories and the corresponding PMSSW construct. As the PMSSW is most interested in how children are feeling about school and their responses to the issues surrounding adjustment to school, only Dockett & Perry’s child-rated responses are presented in this table.

Table 4.1: Corresponding response categories for PMSSW constructs and Dockett & Perry’s important issues for children.

<table>
<thead>
<tr>
<th>D &amp; P important issue</th>
<th>PMSSW Construct</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rules</td>
<td><em>Institutional</em> - Understanding of behavioural and routine requirements of school/classroom</td>
</tr>
<tr>
<td>Disposition</td>
<td><em>Personal</em> - Feelings about school/emotions</td>
</tr>
<tr>
<td>Social Adjustment</td>
<td><em>Interpersonal</em> – Relationships with peers and teachers</td>
</tr>
<tr>
<td>Knowledge/Skills</td>
<td><em>Personal</em> - Attitudes towards school work</td>
</tr>
</tbody>
</table>

*Personal adjustment*. How children adjust to the personal demands of school is signified by their feelings about school and attitudes towards specific aspects of the school environment. Depending on children’s level of independence and ability to regulate their emotions, children may find it difficult to adapt to personal, out-of-class
situations at school which they have to manage, for the most part, on their own. One particular aspect of children’s personal adjustment to school includes the construct of separation anxiety, which has been found to intensify at the commencement of formal schooling (Robbins, 1997). Having to leave their mother in the morning and go to school by themselves can make some children very distressed. In addition to understanding how children feel about being separated from their parent(s) at the beginning of the day, how children cope with this type of scenario is also of interest. Many children may express negative feelings about saying good bye to their parent at the beginning of the day; however it is only the children who do not have positive strategies to cope with those negative feelings that are cause for concern.

Interpersonal adjustment. Children’s relationships with their peers and their teacher play an important role in children’s positive adjustment to school and social competence. Social competence refers to how children see their relationships with familiar and unfamiliar peers, and how competent they feel they are in situations involving others. Birch and Ladd (1996) found that children who had more positive peer relationships were more likely to develop more supportive friendships, which would undoubtedly help in the process of adjusting to school. Assessing how and why children feel a certain way in situations that involve peers, as well as children’s strategies for coping in peer situations was of interest in the current study.

Whether or not children have a positive relationship with their teacher can also contribute to their connectedness with school and enjoyment of going to school. Birch and Ladd (1997) recognised the possible connection between negative teacher-child relationships and early school stress which may hinder the process of a successful adjustment.

Institutional adjustment. Adjusting to the behavioural requirements and academic demands of the school environment is also a critical part in the process of starting school. Conforming to the behavioural and routine requirements of school has been identified by the literature as something of importance to children as they talk about starting school (e.g., Dockett & Perry, 2003; Einarsdóttir, 2003). Children’s feelings about the behavioural and academic expectations of the school and their strategies for coping with these expectations, was of interest in the current study. Children’s self-evaluation of their academic competence (mathematics and literacy) have also been researched by Valeski and Stipek (2001) using the Feelings About
School scale. In the current study school-work was referred to in the situations where this took place, for example when in the classroom doing work at desk.

4.3 Presentation of the PMSSW

The PMSSW was presented in the following order to reproduce the sequence of a typical school day in an attempt to be relevant and easy for children to follow along with during the interview.

1. Waving good-bye to parent in the morning
2. Lining up outside the classroom
3. Speaking in front of the class (telling news)
4. Sitting on floor listening to teacher
5. Going to the toilet by yourself
6. Doing work at desk
7. Lining up at the canteen
8. Entering the playground at the beginning of lunch
9. Watching other children play in the sandpit
10. Being pushed by other children

Black and white line drawings were used to depict the ten scenarios. This format was chosen as it would be less distracting for the child and would keep their attention on the main idea of the picture. Simple drawings also would help the child participant to relate to the child in the picture without being able to obtain clues as to how they might be feeling based on their facial expression or body language. The drawings include a range of male and female children and teachers. No facial features were drawn on the children or teachers, so that children would describe how they would feel in that situation without being influenced by the facial expression(s) in the picture. This method of presentation also allowed the respondent to draw a facial expression themselves to show how the child was feeling, if they were unsure how to describe the feelings in words.

Final drawings of the nine scenarios used in the current study are presented in the following section. In-class, out-of-class and peer-related scenarios each require different types of responses from children. Scenarios 3, 4 and 6 represent in-class

2 This scenario will not be reported on in this thesis.
experiences. Scenarios 1, 2, 5 and 7 represent out-of-class experiences. Scenarios 8 and 9 represent peer experiences. Scenarios involving peers were grouped together to encourage children to focus on their feelings about familiar and unfamiliar peers and think more deeply about their peer relationships. In-class experiences were also grouped near each other so children could think more deeply about their feelings in these situations.

4.3.1 PMSSW Scenarios

1. *Waving good-bye to parent in the morning.* This out-of-class, child-related scenario was based on Slough and Greenberg’s (1990) Separation Anxiety Test and was designed to assess the construct of separation anxiety and how the child feels about leaving their parent(s) in the morning. It was expected that children’s responses would become more positive by the end of the year.

*Figure 4.1: Scenario 1 – Waving good-bye to parent in the morning*

“In this picture, this child (point to child) is waving good-bye to their parent (point to parent) in the morning. They are going to school (point to child)”

2. *Lining up outside the classroom.* This out-of-class, child-related scenario was designed to assess the constructs of self-confidence and how well the child copes with conforming to the behavioural and routine requirements of the school. The child is asked to point out which child in the picture is like them, so they have someone to relate to when answering questions about the picture.
Figure 4.2: Scenario 2 – Lining up outside the classroom

“In this picture, these children are lining up outside their classroom in the morning (point to children) and this is their teacher (point to teacher). Which child is like you?”

3. *Speaking in front of the class (telling news).* This in-class, school-related scenario was designed to assess the construct of self-confidence in a group setting with familiar peers by looking at how children react to having to stand in front of the class and speak, and meet this particular expectation of school.

Figure 4.3: Scenario 3 – Speaking in front of the class

“In this picture, this child (point to child) is standing in front of their class telling them some news”
4. *Sitting on floor listening to teacher.* This in-class, school-related scenario was designed to assess the construct of how well children cope with conforming to the behavioural and routine requirements of the classroom. It was expected that children who understood the routines of the classroom environment would feel more positive in this type of situation compared to children who did not understand what was expected of them when the teacher was talking. This scenario may also elicit responses from children that indicate the type of relationship they have with their teacher, as it specifically mentions the teacher and may therefore make children think explicitly about them. The child is asked to identify where they would be sitting, or which child was like them, to personalise the question and engage the child.

*Figure 4.4: Scenario 4 – Sitting on floor listening to teacher*

“Now the child is sitting with the rest of their class listening to their teacher (point to all children in picture sitting on floor).

Pick which child is like you”

5. *Going to the toilet by yourself.* This out-of-class, child-related scenario was designed to assess the construct of independence/dependence and focused on the level of stress the child felt in this situation. Once children start formal schooling they are expected to be able to cope with situations such as this with a degree of independence, however anecdotal evidence from the pilot study that was conducted to develop the PMSSW found that this is something that some children don’t like doing by themselves. This scenario aimed to identify
how children felt about going to the toilet by themselves and how they coped with their feelings.

*Figure 4.5: Scenario 5 – Going to the toilet by yourself*

“In this picture, this child (point to child) is going to the toilet by themselves”

6. *Doing work at desk.* This in-class, school-related scenario was designed to present a scenario that illustrated the more formal expectations of the classroom while assessing the construct of early school attitudes, towards the learning tasks of school. Children’s responses were expected to indicate the degree of stress they associated with this cognitive school demand. This scenario was also expected to elicit responses relating to children’s confidence with their own academic competence, and although numbers were represented on the page, there is no mention by the interviewer of what type of work the child was doing. Thus, this scenario was somewhat open to different interpretations.
“In this picture, this child (point to child) is sitting at their desk doing work”

7. *Lining up at the canteen.* This out-of-class, child-related scenario was designed to assess the constructs of independence and self-confidence and indicate how well children were able to cope with the routines associated with going to the school canteen. Schools tend to expect children to know the routines involved with lining up at the canteen; for example, some require children in younger years to line up separately to children in older years; others stipulate that children can only buy certain items of food at certain times of the day.

“In this picture, this child is at the school canteen at lunch time (point to smaller child at front of canteen line). There are other
children there too (point to other children)”

8. *Entering the playground at the beginning of lunch.* This peer-related scenario was designed to assess the construct of perceived confidence with peer relationships and the degree of social competence children feel they have about approaching peers in the playground. This scenario was also expected to elicit information about how children perceive their peers, as well as how they perceive themselves in relation to the peer group. This provides a different approach to measures of social acceptance that ask children about the number of friends they have and their popularity in the peer group (Ladd, Kochenderfer & Coleman, 1997).

*Figure 4.8: Scenario 8 – Entering the playground at the beginning of lunch*

““This child (point to child on left of picture, in foreground) has finished their lunch and now they are going into the playground”

9. *Watching other children play in the sandpit.* This peer-related scenario was designed to further assess the construct of social competence in peer relationships by inviting children to consider the types of entry strategies they might use in situations involving peers. It relates to the degree of confidence children have with approaching a small group of other children to join in their play. In both of these peer-related scenarios children’s self-assessment is located in real-life situations that children experience everyday at school.
**Figure 4.9: Scenario 9 – Watching other children play in the sandpit**

“This child (point to child on right) is in the playground looking at three children (point to children) playing together in the sandpit (draw a circle with your finger around children in sandpit).

### 4.3.2 PMSSW Questions

The PMSSW asks a set of five questions, with the same question being included for each of the nine scenarios. The development of the questions is based on previous research using similar pictorial measures, such as the Separation Anxiety Test (Slough & Greenberg, 1990), which have shown that young children are able to project their own feelings onto the child in a picture, to describe how they would feel and to give reasons why they feel that way. Questions used in the PMSSW also drew on the Feelings About School scale (Valeski & Stipek, 2001), in particular the question about the teacher.

The five questions are presented below with an explanation for their inclusion in the measure.

1. *How does the child (in the picture) feel?*
2. *Why do they feel (the child’s word)?*

Question 1 is expected to elicit children’s positive or negative feelings about each of the nine school scenarios. Question 2 allows children to extend on their feeling responses. It was also expected that the reasons children give for their feelings would demonstrate whether or not they understood the question and could appropriately justify their feeling responses. This will provide some content validity for the PMSSW, that is,
it will provide evidence that the instrument is measuring what it intends to measure (Burns, 2000). Responses for children’s reasons will be used to examine children’s feelings in more depth and provide information about individual children’s responses to each scenario.

3. **Do you think they would want the teacher to know they are feeling (the child’s word)?**

4. **Why/why not?**

   Question 3 is designed to elicit yes/no responses from children to give a broad sense of the nature of their relationship with the teacher. A positive response, that is, that children would want to share their feelings with the teacher, is expected to show a positive connection with the teacher; however, the relationship could either be one of closeness or one of dependence. A negative response, that is, that children will not want to share their feelings with the teacher, could indicate conflict in the teacher-child relationship or self-reliance. Question 4 allowed children to extend on these initial responses to explain why they would want to share or not share their feelings with the teacher. The reasons children give for sharing/not sharing would illustrate the type of relationship they have with the teacher more effectively. It was also expected (as with Question 2) that children’s responses would provide some content validity for the PMSSW by indicating whether or not children could appropriately justify their reasons.

5. **What do you think will happen next?**

   Question 5 aimed to elicit children’s coping strategies for dealing with each scenario. It also allowed children to voice their full opinion and gave them some resolution for each scenario. Children's solutions for each scenario were expected to be essentially positive or negative, and give an indication as to how they would cope and whether they see the situation as becoming better or worse. Eisenberg, Fabes and Guthrie (1997) reported that whether or not children see situations as stressful can be dependent on whether they feel as though they can successfully manage or cope in the situation. In addition to this, Beaver (1997) suggests that children utilise a variety of strategies for coping in stressful situations. Specific coping strategies have been outlined in the literature and have included approaches that are more constructive, such as utilising peers, modifying the problem and regulating emotions. Less constructive approaches have also been mentioned in the literature and include, for example, wishful thinking. There is also the possibility that children will have no specific coping strategy in stressful situations.
4.3.3 Procedures

The PMSSW was presented as an audio-taped structured interview with individual children. Interviews were conducted at school, in a semi-private location, e.g., a computer room adjoining the classroom, or vacant office near the classroom. It was important that the child was made to feel comfortable and safe. The interview also needed to be conducted in a location where teachers or other school staff could see the interviewer. Procedures were undertaken so that the child was familiar with the interviewer, for example, they had seen them at least once prior to the interview. The classroom teacher was asked to introduce the interviewer to the class prior to the interviews. Prior to the interview starting and the audio-tape being turned on, the interviewer introduced herself to the children. She informed the children she was there to find out about how children feel about school and that she would be talking to lots of kindergarten children. She demonstrated how the audio-tape player works, explained why she is using it (so she can listen to it later and remember what children said), and asked the child’s permission for the interview to be taped. Children were assured their responses were just between the researcher and themselves and then were also assured there were no wrong answers; it was just what they thought that was important. At the conclusion of the interview, children were thanked and were invited to choose a small reward such as a sticker.

The administration of the PMSSW took approximately 15 minutes and the inclusion of other child measures increased the interview time to approximately 30 minutes for each child. A small number of children became tired, hungry or began to lose interest after 20 minutes or so. In these cases, the interview was stopped and resumed after a break, such as recess or lunch. Breaks were more necessary when interviews were conducted early in the school year or when the children were younger or had behavioural or intellectual difficulties. Having a break ensured children’s foci remained constant and helped to ensure test reliability. Children who were younger or who were identified as having a learning or behavioural difficulty were scheduled to begin their interview before a break in the day so the interview could be conducted in two short sessions rather than one long one.

4.3.4 Cognitive Requirements

The effective completion of the PMSSW requires a certain level of cognitive ability. Children’s understanding of what was happening in the picture and their ability
to project their own feelings on that of the child was checked using two different methods.

Establishing content validity was an important step in the procedure, to make sure that children’s interpretation of the scenario illustrated in the PMSSW was the same as that of interviewer. Therefore, initial questions were included to check that children understand the pictures and recognise what each is representing. For the first two scenarios all children were asked what they think the picture is about and who they thought was in the picture, before the actual scenario description was read to them. In some cases, it was beneficial to include more introductory talk about the scenario before asking questions. This helped to ensure that the child can understand and relate to the situation.

Appropriate confirmatory techniques were needed in order to check children’s understanding of the picture scenarios. Children’s initial descriptions of the scenarios indicated whether or not they understood what was happening in the picture. Children’s descriptions of their feelings and their ability to provide appropriate justifications for these feelings also showed that they understood the scenario that was presented in the picture.

As a further check of the accuracy of children’s responses, that is, that they give an indication of how they would feel in that situation, children were asked to provide further explanations from their own experiences. For example, for Scenario 1, children were asked “Is that how you feel when you wave good-bye in the morning?” In cases where children’s answers for themselves were different from the feelings they gave for the child in the picture, prompts were given for each subsequent scenario to check that the responses are based on the child’s own feelings.

For the most part, children were expected to be able to manage the procedural demands of the PMSSW interview. Any problems with concentration were overcome by splitting the interview up into two sessions, as previously described.

Children also needed to be able to demonstrate a certain level of cognition and understanding, not only in recognising and describing the pictures, but also in answering questions about feelings and possibilities. Children who were identified by teachers as having language difficulties and developmental delays were not expected be able to fully complete the task. To test whether or not children were able to complete the requirements of the PMSSW three criteria were checked. First, children were asked to describe what they think the picture is about. If children were unable to do this
accurately, the scenario was explained to them. They were then asked if they understand the interviewer’s explanation of what was happening in the picture. Following this, children’s responses were then used to check if children could appropriately respond to emotion/feeling questions. If children did not meet the requirements of the last two of the three criteria, that is, they did not understand the scenario and could not appropriately explain how they would feel, it was expected that they would not be able to fully complete the requirements of the PMSSW interview. In these cases, children who wanted to continue with looking at the PMSSW pictures were allowed to do so, but their responses were not used in any analyses.

4.4 Interpretive Analysis of Children’s Responses to the PMSSW

In this section of the chapter, children’s responses to the Pictorial Measure of School Stress and Wellbeing will be presented and analysed interpretively to develop the scoring system for the PMSSW. The interpretive analysis of children’s responses was conducted on data collected in a pilot study (Murray & Harrison, 2005) as well as responses from 101 children in the current study at the beginning of the first year of school (Time 1).

Results from the interpretive analysis of children’s responses to the PMSSW are presented in three sections. In each section, the analysis identifies broad categories that are used to explore the extensive range of children’s responses to PMSSW questions. First, the range of emotional responses that the scenarios elicited are described, by discussing children’s answers to questions regarding their feelings about typical events at school. This section draws on responses to questions 1, “how does the child feel?” and 2, “why does the child feel (the child’s response)?” Next, children’s perspectives of their relationship with the teacher will be reported on, by analysing responses to Questions 3 which asks whether or not the child would want their teacher to know how they are feeling, and 4, the reasons for wanting or not wanting to share their feelings with the teacher. In the final section, consideration will be given to the coping strategies children use to manage typical situations at school. This section draws on children's responses to question 5, “what might happen next?” Using children's actual words to generate categories to be used in statistical analyses, rather than asking children to answer using already designated response categories, allowed meaningful and more representative categories to be developed.
4.4.1 Feelings about School Scenarios

Children’s positive and negative feelings about school scenarios gave an indication of the degree of stress or wellbeing they were experiencing at school, and the aspects of school that they liked or disliked. Children’s reasons for their feelings not only identified whether or not children could justify their feelings, but also offered a more in-depth analysis of their reaction to the situation.

Positive feelings

Positive feelings were expressed when children felt happy about and comfortable in the situation presented. Children articulated these feelings by saying they felt, for example, “happy” or “good” and explained what they liked about what they were doing. Children’s reasons for feeling happy about school scenarios were categorised into three main areas; personal or intrinsically motivated reasons, interpersonal relationship reasons, and institutional or school-related reasons. Children’s actual responses will be used to illustrate each of these response categories.

**Personal/intrinsically motivated reasons.** Children’s justifications for their positive feelings, that were illustrative of a personal or intrinsically motivated reason for feeling positively about school, showed that children saw school as an enjoyable place to be and a place to play and learn. Their reasons also indicated that children liked school and liked the things they did at school, as illustrated by the following examples:

Scenario 1: Waving good-bye to parent in the morning
*Happy, ’cause they’re going to big school*

*Happy, because he likes going to school because he likes to learn new things*

Scenario 2: Lining up outside the classroom
*Happy, they’re going into class to play and sing songs and read books*

Scenario 4: Listening to the teacher
*Happy, because you’re learning something new*

**Relationship reasons.** Positive feelings about school were also associated with the relationships children had with their family, their teacher, and their friends. In justifying their feelings about the scenarios, children mentioned a personal connection with someone they felt close to emotionally. The focus on friends is similar to findings reported by Dockett and Perry (1999b), but here the importance of children’s relationships with significant adults can also be seen.
Scenario 1: Waving good-bye to parent in the morning
Happy, because they say goodbye and they love waving good-bye to their parents
Happy, ‘cause he likes his teacher
Happy, ‘cause I wave to mum and my sister
Scenario 3: Speaking in front of the class (telling news)
Happy, because I’m showing something really special to my friends

School-related reasons. These reasons for feeling positive suggested an early awareness of meeting the expectations of school, and knowing the rules and routines of the day. The importance of knowing about school rules and activities has also been noted in Dockett and Perry’s (1999) Starting School Research Project. In the present study, responses focused on school rules, and expectations were also linked to receipt of teacher praise. These responses were more extrinsically motivated, for example:

Scenario 1: Waving good-bye to parent in the morning
Happy, because when the bell goes mummies go and I go up to class
Scenario 6: Doing work at desk
Happy, because she’s doing the right thing
Scenario 7: Lining up at the canteen
Happy, they’re getting into lines

Negative feelings
Children’s negative feelings were often associated with insecurities about being alone or being scared, but sometimes also referred to stresses and anxieties about some aspects of the school environment. Children’s reasons for feeling negatively about school scenarios were categorised under the same three headings as reasons for positive feelings.

Personal/intrinsically motivated reasons. Negative responses were associated with children’s personal experience of stress or anxiety about some aspects of the school environment, or a lack of personal connection to school activities. Personal or intrinsically motivated reasons referred to a general dislike of school or school activities. School was a place they didn’t want to be. Strong emotions were sometimes expressed in children’s justification for their negative feelings. For example:

Scenario 1: Waving good-bye to parent in the morning
Sad, because he doesn’t want to go to school
Sad, because he don’t like school

Scenario 3: Speaking in front of the class (telling news)
Sad, ‘Cause I don’t like telling news

Scenario 6: Doing work at desk
Sad, because they hate doing their work
Sad, ’cause (they) don’t like doing work that often

Scenario 7: Lining up at the canteen
Sad, I don’t like the canteen ladies seeing the gap in my teeth

Relationship reasons. Rejection by peers, or concerns about the lack of friendships, was a further reason for children to feel negative or stressed at school. Peer relationships are known to play a very important role in the transition and school adjustment process. Birch and Ladd (1997) found that peers were a very important source of emotional and social support for children who are starting school. Negative feeling responses were particularly evident in response to peer and out-of-class scenarios, such as being in the playground or lining up at the canteen. However, children also mentioned negative feelings and referred to their insecurities about being alone or being separated from others, for example, when saying good-bye to parents or going to the toilet. Relationship reasons were coded when children mentioned their parents or teachers, and were often focused on the relationship they had with their mother. For example:

Scenario 1: Waving good-bye to parent in the morning
Sad, ’cause he wants his mum and dad
Sad, because they leaving their mummy
Sad, ‘cause the kid’s going to school…’cause when I go to school I miss my mum

Scenario 5: Going to the toilet by yourself
Not very happy, ’cause he’s all alone
Sad, ‘cause they want to take a person in there

Scenario 7: Lining up at the canteen
Sad, ‘cause there’s no-one coming with her

Scenario 9: Looking at other children playing together in the sandpit
Lonely, because she has no-one to play with
Sad, 'cause they want to join in the game but the people said ‘no’

School-related reasons. Reasons for feeling negatively about certain school scenarios were related to not meeting the teacher’s expectations. Children were sometimes worried about the rules and routines of the school and classroom. Dockett and Perry (2001) have also identified this as an important issue for children in kindergarten.

Scenario 2: Lining up outside the classroom
Sad, 'cause she doesn’t have sunscreen or a hat
Scenario 3: Speaking in front of the class (telling news)
Shy, because you have to do it in front of the class
Scenario 4: Sitting on floor listening to teacher
Sad, because we have to learn everything
Scenario 6: Doing work at desk
Tired, because they’ve had to do their work for a very long time

4.4.2 Relationship with the Teacher

Children’s perspectives about their relationship with the teacher were assessed by analysing responses to questions 3 and 4, which asked children if they would want their teacher to know how they are feeling, and the reasons for wanting to share or not share their feelings. Classifiable responses (i.e., the reason is related to the teacher) tended to fall into three main categories, those that were based around the child’s feelings, those that referred to the quality of the relationship with the teacher, and those that related to meeting the teacher’s expectations.

Child would share their feelings with the teacher

The responses described in the following three sections gave a clear sense of closeness or warmth in the teacher-child relationship and offered valuable insights into the emotional connectedness children felt they had with their teacher. Children who said they would want to share their feelings with the teacher were typically sharing a positive feeling, rather than a negative feeling. Responses for wanting to share feelings with the teacher were classified into three main categories: (1) Child-related/personal reasons; (2) Interpersonal reasons (i.e., that exemplified a relationship with the teacher), and (3) Institutional reasons (i.e., that exemplified having to meet the teacher’s expectations).
Child-related/personal reason. Personal or child-related responses were coded when children wanted to share their feelings with the teacher, because they, themselves, were happy or liked what they were doing. These responses sometimes related to children’s self-confidence and self-awareness in certain school situations, and were intrinsically motivated. For example:

Scenario 1: Waving good-bye to parent in the morning
Yes, ‘cause it’s his first day…he’s so excited

Scenario 2: Lining up outside the classroom
Yes, ‘cause you like coming to school all the time

Scenario 3: Speaking in front of the class (telling news)
Yes, ‘cause she likes drawing pictures and coming to school

Scenario 7: Lining up at the canteen
Yes, ‘cause she likes buying things

Scenario 8: Entering the playground at the beginning of lunch
Yes, ‘cause it will make their mums feel better and them feel better

Scenario 9: Watching others play in the sandpit
Yes, ‘cause they love their friends

Interpersonal relationship reasons. These responses emphasised the positive relationship the child had with the teacher. Children often mentioned the teacher as someone they liked or who wanted to know how they were feeling because they cared about them. Also coded were instances when children wanted the teacher to know how they felt (i.e., happy) because they thought it would make the teacher happy. These responses showed that children think about their teachers’ feelings and value their relationship with the teacher (Birch & Ladd, 1997). They also show that children are empathic and aware of how others are feeling and how their own feelings might affect others. Further to the idea of the teacher-child relationship, children also gave reasons that suggested they saw the teacher as a person who cared about them and would want to know if they were happy. These responses offer an indication of comfort and warmth within the teacher-child relationship, as children give reasons for wanting to confide in the teacher. For example:

Scenario 1: Waving good-bye to parent in the morning
Yes, because, she (the teacher) wants to know how happy he is

Scenario 2: Lining up outside the classroom
Yes, because when she feels happy she (the teacher can give us smarties and lollies and stickers)

Scenario 3: Speaking in front of the class (telling news)
Yes, ‘cause the teacher wants to know if a kid feels good or bad
Yes, because they (the teacher) like to feel happy

Scenario 4: Sitting on floor listening to teacher
Yes, because they (the teacher) want to know if they (the child) feel happy

Scenario 5: Going to the toilet by yourself
Yes, ‘cause...the teacher would feel happy

Scenario 6: Doing work at desk
Yes, because she likes telling the teacher she’s happy

Scenario 7: Lining up at the canteen
Yes, because she loves the teacher and she likes telling the teacher

Relationship reasons were also coded when children described a negative feeling about a scenario and said they would want the teacher to know. These responses emphasised the functional role of the teacher as someone who could help solve a problem. Children mentioned this in relation to a lack of confidence or when doing schoolwork, or when they wanted the teacher’s help to manage negative peer interactions.

Scenario 5: Going to the toilet by yourself
Yes, because, um, their teacher might let another person go with them to the toilet and then he would be very happy
Yes, ‘cause then the teacher will look after them

Scenario 6: Doing work at desk
Yes, ‘cause they want the teacher to help them

Scenario 8: Entering the playground at the beginning of lunch
Yes, ‘cause then the teacher can go around with that little kid and say “can this little kid play with you”, and they’ll probably say yes and then she’ll feel happy again

Institutional reasons. A different view of the teacher-child relationship was seen in responses where children said they would want the teacher to know how they were feeling because they were exhibiting good behaviour or following the rules and may
receive a reward. This suggests that children’s view of the teacher is coloured by their awareness of the expectations made on them at school and knowing how to act appropriately to generate praise. As discussed by Goodnow and Burns (1985), the teacher holds the power in the teacher-child relationship as she/he decides when praise or punishment is necessary. Teachers who are positive and who praise children make children feel happier about being in the classroom. The following examples illustrate this view of the teacher-child relationship:

Scenario 1: Waving good-bye to parent in the morning
Yes, because that’s what they’re supposed to do at school
Scenario 2: Lining up outside the classroom
Yes, ‘cause the teacher would say “good”
Scenario 4: Sitting on floor listening to teacher
Yes, ’cause she's sitting properly
Yes, ’cause she's sitting up straight
Scenario 6: Doing work at desk
Yes, ’cause they are trying to get ten out of ten
Scenario 8: Entering the playground at the beginning of lunch
Yes, because she likes knowing about if they’re being good

Further examples of children wanting to meet the teacher’s expectations illustrated an understanding that the teacher could punish children who weren’t doing the right thing at school. Some of these examples included children wanting to get others into trouble, and some involved the child themselves getting into trouble. In most cases, children in situations viewed as negative or situations involving peers, used these responses. For example:

Scenario 9: Watching other children play in the sandpit
Yes, so they can get these people into trouble
Yes, because they’re (the child) not allowed on the playground, and they’ll have to tell the teacher and they’ll (other children) get in big, big trouble

Child would not share their feelings with the teacher

Children who said they would not want the teacher to know how they were feeling were typically expanding on scenarios where their initial response to the scenario was negative. The reasons for not sharing their feelings with the teacher
showed that children had a negative perception of their teacher. They gave no sense of an emotional connection with the teacher. Birch and Ladd (1997) say that conflict within the teacher-child relationship is characterised by a lack of rapport between the teacher and the child and that children who experience a lot of friction with their teachers “limit the extent to which they may be able to rely on that relationship as a source of support” (p. 63). Responses were classified into the same three categories as for children who said they would want to share their feelings with the teacher: (1) Child-related/personal reasons; (2) Interpersonal relationship reasons (i.e., that exemplified a relationship with the teacher), and (3) Institutional reasons (i.e., that exemplified having to meet the teacher’s expectations).

**Child-related/personal reasons.** Child-related or personal reasons expressed a feeling of being overwhelmed by the situation and an inability to share this with the teacher. In other cases, children simply didn’t think they needed to tell the teacher how they were feeling. Other responses indicated that some children had strong negative feelings about school that they didn’t feel they could share with the teacher. For example:

Scenario 2: Lining up outside the classroom
*No, because he’s too sad*
*No, ‘cause they’d wanna go home*

Scenario 3: Speaking in front of the class (telling news)
*No, because you might want to just keep it to yourself*

Scenario 5: Going to the toilet by yourself
*No, because they want someone else to take them*

Scenario 6: Doing work at desk
*No, ‘cause they’re cranky*

Scenario 7: Lining up at the canteen
*Nup, because you can get things from the canteen yourself*

Scenario 9: Watching other children play in the sandpit
*No, they’ll be too sad*

**Interpersonal relationship reasons.** Children’s reasons showed a sense of not valuing their relationship with the teacher. The tone in these types of responses was dismissive, or suggested that the teacher would not want to know how the child was
feeling. In some cases, the child seemed to expect the teacher to know how they were feeling so telling them was unnecessary. This was indicative of the child’s view of what the teacher should understand. For example:

Scenario 3: Speaking in front of the class (telling news)

_They don’t have to, ‘cause the teacher can tell ‘cause their face could be smiling_

Scenario 6: Doing work at desk

_No, ‘cause they might know that already_

Scenario 7: Lining up at the canteen

_No, teacher might not want to know it_

_Institutional reasons._ Children’s reasons expressed a perception of the school rules, for example, getting into trouble if they told the teacher how they were feeling. Some responses depicted the teacher as someone who punishes or is mean to children. Other responses referred to the rules of the school or classroom, and a feeling of having to conform to the requirements of school whether children enjoyed what they were doing or not. For example:

Scenario 1: Waving goodbye to parent in the morning

_No, the teacher might be doing bits of work and they don’t want to interrupt_

Scenario 2: Lining up outside the classroom

_No, ‘cause, um, cause, cause, the teacher will get up ‘em_

Scenario 6: Doing work at desk

_No, ‘cause the teacher might say you have to do your work_

No, ‘cause the teacher might have to put them in the corner and put a red cross

Scenario 7: Lining up at the canteen

_No, ‘cause he might get in trouble…’cause the teacher might not want them to be happy_

4.4.3 **Coping Strategies**

Responses to the final question, “What might happen next?” were expected to show the variety of coping strategies and solutions that children had for managing everyday situations at school. Children’s responses were most informative when they were asked about dealing with a situation they perceived as stressful, that is, when they gave a negative feeling response to Question 1. However, even when children did not perceive the scenario as stressful, the solution provided an insight into their perceived
level of control over the situation, and what they thought would happen next. The analysis approach aimed to categorise and interpret the strategies children had for either solving the problem, or relating to the scenario in a more positive way. Responses were interpreted in relation to children’s expressed emotionality or regulation of emotional responses, using six broad categories: Constructive solutions, school routine solutions, destructive solutions, passive solutions, unrealistic/idealistic responses, and no solution responses. These categories will be examined in more detail with examples of children’s responses.

**Constructive solutions**

Constructive solutions were assigned based on Resnick’s (1993) solution scores, which classify constructive solutions as those which involve an activity or behaviour that permits the child to cope with the situation, and can involve the active seeking of comfort and support from adults and peers. Responses that were coded as constructive were characterised by solutions that enabled the child to manage their distress in a difficult situation. Constructive solutions were also mentioned in situations that children did not see as distressful. In these cases, constructive solutions involved the child actively doing something to make the situation better or more positive. The following examples illustrate a range of ways children used constructive solutions to deal with stressful and non-stressful situations.

- Scenario 1: Waving good-bye to parent in the morning
  *Happy, I might go out to recess and play with friends*
- Scenario 2: Lining up outside the classroom
  *Happy, they will go in there and have a play*
- Scenario 5: Going to the toilet by yourself
  *Scared, go in there with a person*
  *Lonely, he’ll go to the toilet with another boy*
- Scenario 9: Watching other children play in the sandpit
  *Sad, she will ask them can she play*
  *Happy, help them build a really high sandcastle and decorate it*

**School routine solutions**

Children’s responses referred to the typical classroom routine or the “next step” as their means of coping in the situation. Their ideas about what would happen next in
both positive and negative situations drew on a factual description of school or classroom routines. These types of response provided an insight into children’s awareness and confidence with the routines of school as they exemplified children’s knowledge of school activities and classroom rules.

Scenario 2: Lining up outside the classroom

*Happy, let’s see...he might be going to the library after that*

Scenario 3: Speaking in front of the class (telling news)

*Happy, they change the news to (another) person*

*Happy...really happy, you might put it (your news) on your desk, or you could put it in your bag if you don’t want to get it lost*

*Happy, go in groups*

Scenario 5: Going to the toilet by yourself

*Happy, he’ll go out to play...when the bell goes he has to line up*

Scenario 6: Doing work at desk

*Normal, sit on the floor and listen to their teacher*

*Happy, after when you’ve done your work you can colour in*

*Sad, they going back on the floor and listen to the next thing to do*

**Destructive solutions**

Responses were coded as destructive when children tended to focus on negative emotions or negative outcomes. In some cases the child appeared to be overwhelmed by the negative emotions that the scenario elicited, and had no real coping strategy to solve the problem. Destructive solutions were also coded when the situation depicted by the child got worse, and similar to Resnick’s (1993) destructive solution scores, some responses indicated some degree of violence. For example:

Scenario 1: Waving good-bye to parent in the morning

*Sad, I think they would walk to school and cry at his school*

Scenario 4: Sitting on floor listening to teacher

*Happy, stop smiling, because they might think they’re doing homework and they’re only in kindy*

Scenario 5: Going to the toilet by yourself

*Sad, might get sick*

Scenario 8: Entering the playground at the beginning of lunch

*Happy, there’s two girls trying to argue*
Happy, get picked on by the bullies

Scenario 9: Watching other children play in the sandpit

Sad, if (the other children) said no (and would not let her join in) they would get in trouble

Passive solutions

Passive solutions to situations were coded when children did not suggest a constructive coping strategy when faced with difficult or stressful situations, but did not mention something destructive happening. Resnick (1993) notes that a passive solution arises when a child does not take the initiative to do anything in order to deal with the situation, and when there is no activity or action specified which is positive or helps the situation improve. In some cases, passive solutions involved removing themselves from the situation. For example:

Scenario 1: Waving good-bye to parent in the morning
Sad, he goes home

Scenario 5: Going to the toilet by yourself
Happy, they feel better

Scenario 9: Watching other children play in the sandpit
Sad, walking and getting a tissue to wipe her eyes
Sad, I think they’ll (children in sandpit) move away and play somewhere else because they don’t like her

Unrealistic/Idealistic responses

Unrealistic or idealistic responses were coded when the response was unrelated to the scenario or suggested an outcome that was not likely to happen, such as going home or playing during class time. Unrealistic/idealistic responses tended to show a pattern of similar “solutions” given to different scenarios, for example “play”, or “have recess”. Another sign was the tone of the response being hopeful, as if the child knew it was not likely to happen next. Unrealistic/idealistic responses were sometimes one-word responses.

Scenario 1: Waving good-bye to parent in the morning
Sad, they’d go home and have a rest

Scenario 2: Lining up outside the classroom
Happy, he might go home
Scenario 3: Speaking in front of the class (telling news)

*Happy, playtime*

*Happy, go home*

Scenario 4: Sitting on floor listening to teacher

*Happy, recess*

Scenario 5: Going to the toilet by yourself

*Sad, recess*

Scenario 7: Lining up at the canteen

*Hungry, go home*

*No solution*

No solution was coded when children did not offer a response or coping strategy for the scenario. Some of these children did not respond to the question at all, and some children said, “don’t know” when asked what would happen next. This code was also used to categorise any bizarre responses, or responses that restated the scenario.

Scenario 1: Waving good-bye to parent in the morning

*Happy, go inside the house*

Scenario 3: Speaking in front of the class (telling news)

*Happy, the cat would go back into the picture*

Scenario 7: Lining up at the canteen

*Sad, I don’t know*

4.4.4 PMSSW: Scoring System

Based on the interpretive analysis of children’s responses to the PMSSW presented in the previous section, the following scoring system was developed to code responses for the five questions.

*Question 1: How does the child in the picture feel?*

Positive response

Negative response

No response/ don’t know/ other

*Question 2: Why do they feel (child’s word)?*

Positive response to Question 1

Like school/personal response (intrinsically motivated response)
Relationships (teacher/parent/peers)
School expectations (extrinsically motivated response)
Classroom routine response, what happens next in school day
No response/ don’t know/ restate question/ other/ unrealistic/idealistic response

Negative response to Question 1
Dislike school/personal response (intrinsically motivated response)
Relationships (teacher/parent/peers)
Not meeting school expectations (extrinsically motivated response)
Classroom routine response, what happens next in school day
No response/ don’t know/ restate question/ other/ unrealistic/idealistic response

Question 3: Do you think the child would want the teacher to know they are feeling (child’s word)?
Positive response
Negative response
No response/other/don’t know

Question 4: Why/why not?
Positive response to Question 3
Relationship with teacher (wants teacher to be happy)/teacher cares/teacher helps child/ teacher wants to know
Child related response/personal response
Child meets teacher/school expectations
Teacher punishes other children
No response/ don’t know/ other/ restate question

Negative response to Question 3
Child dismisses telling teacher/teacher doesn’t want to know
Child related response/personal response
Child doesn’t meet teacher/school expectations
Teacher punishes child
No response/ don’t know/ other/ restate question

Question 5: What might happen next?
Positive response to Question 1

- Constructive/positive solution
- Destructive/negative solution
- Passive solution
- Classroom routine/school routine solution
- Unrealistic/idealising solution
- No response/ don’t know/ restate scenario/ other

Negative response to Question 1

- Constructive/positive solution
- Destructive/negative solution
- Passive solution
- Classroom routine/school routine solution
- Unrealistic/idealising response
- No response/ don’t know/ restate scenario/ other

4.4.5 Inter-rater Reliability

Even though PMSSW interviews used in this thesis (which were audio-taped and transcribed) were only coded by the principal investigator (the author), inter-rater reliability for the coding of the measure was established with a second interviewer who interviewed 15% of the children after undertaking training with the author. Inter-rater reliability for the percentage of exact matches on the scoring system for the PMSSW was 91%.

4.4.6 Chapter Summary

In summary, this chapter has outlined the design and development of the PMSSW, by describing the school scenarios presented in the measure, and the procedures for presenting the measure. The methods used to administer the PMSSW were discussed in this chapter, as well as a preliminary interpretive analysis of children’s responses to the PMSSW at the beginning of the kindergarten year, leading to the development of a scoring system.

Consistent with other research that has described child competencies in the process of adjusting to and succeeding at school (Dockett & Perry, 1999; Einarsdóttir,
results showed that children referred to school as a place where they liked to learn. Einarsdóttir (2003) also found that school learning was important to children, that is, they expected to “read, do maths, and write” (p. 42) and to learn rules for behaviour. Children in the current study certainly saw school as a place that has rules and routines. They displayed a good knowledge of school activities and sequences, as well as teacher expectations for appropriate conduct. This was evident in their responses to the question “What might happen next?” where many children described the next step in terms of school routines, or relied on school rules as a means for managing a negative scenario. Teachers’ expectations and school rules typify a key difference between prior-to-school settings, or home, and formal schooling. Many studies have reported children’s concerns with school expectations and rules, both from the perspectives of preschool-aged children and children who have already commenced kindergarten (Dockett & Perry, 1999, 2001; Einarsdóttir, 2003; Goodnow & Burns, 1985; Griebel & Niesel, 2003). Valeski and Stipek (2001) also recognise that “some amount of structure, including clear rules and consistent expectations, are assumed to promote a sense of competence” (p. 1198).

Another feature of children's responses to the PMSSW was their references to their relationships and interactions with peers, parents and teachers. Play with friends was mentioned as something they enjoyed about school. However, relationships with peers served as both a stressor for children, in the context of other children not letting them play in games or teasing or hurting them, and a coping strategy for overcoming negative feelings about situations.

Responses from the PMSSW gave an indication of the degree of children’s emotional connectedness to their teacher, through questions that asked whether or not they felt comfortable telling the teacher how they were feeling. Children often gave a sense of a close trusting relationship with the teacher, who was seen as a person whose feelings were important, who cared about them, and who would help them solve problems or alleviate stress in negative situations.

Strategies for coping with stressful scenarios were seen in children’s different responses to the question “What might happen next?” Beaver (1997) noted: “Coping has been defined as the individual’s cognitive and behavioural efforts to manage internal and external demands that are judged as a threat or challenge to that persons resources” (p. 143). Children showed that they were able to provide a positive and constructive solution that would reduce anxiety. Children’s use of constructive solutions
suggested a level of maturity within the child. Children who referred to using a constructive coping strategy were drawing on their own self-confidence and social awareness to make a situation better or more positive.

At the other end of the coping spectrum, some children described a destructive solution to the situation, where the scenario would become less positive or more stressful. Children’s destructive solutions were indicative of a sense of feeling overwhelmed by the situation and a lack of social and emotional resources to cope in an everyday school situation. Passive solutions were also seen, in which children did not have a means for actively solving the problem, but neither did they describe things as getting worse. Children who perceived a situation as stressful may also have had no solution or strategy to help them solve the problem or feel better. Unrealistic or idealistic responses indicated the child would rather remove themselves from the situation, and this type of response often indicated a degree of social and emotional immaturity. Children who gave this type of response had no real strategy for coping with stressful or non-stressful scenarios. School routine solutions signified a method of coping which showed a child’s reliance on the school structure for support and an understanding of the nature of the school day. Children who relied on lining up or the bell ringing as their response to what might happen next, showed that although they didn’t have a constructive coping strategy, the situation wasn’t getting any worse. This type of response focused on the external routines and expectations of the school environment.

The coding categories presented in this chapter will be drawn on in Chapter 7 which will use quantitative methods to further examine children’s responses to the PMSSW, across the nine scenarios and across the first year of school.
5 METHODS

Based on the process model of child adjustment, presented in Chapter 3, the inclusion of multiple perspectives to assess components of child adjustment across the first year is important to obtaining a holistic view of the process, and will be implemented by the methods presented in this chapter. The first section of this chapter will describe the procedures used to gain access to schools (including ethics approval) and to recruit participants. The second section will describe the participants from whom the data were collected, which included schools, classrooms, teachers, parents and children. The third section of this chapter describes the instruments that were used in all stages of this study, and provides an overall summary of these instruments.

5.1 Procedures

5.1.1 Procedures for Gaining Approval to Access Schools

This study was conducted within the NSW public school system. Permission was requested to conduct research in NSW public schools from the New South Wales (NSW) Department of Education and Training (DET) prior to the commencement of the study. A detailed research proposal addressing research issues regarding ethics, participant confidentiality and anonymity and reasons for conducting the research was provided and approved by the NSW DET and by Charles Sturt University’s Ethics in Human Research Committee (see Appendices A and B).

Once permission had been granted from the NSW DET and Charles Sturt University, school principals were contacted by letter with an endorsed information package about the study. Letters were followed up with a telephone call to request a meeting to discuss the purpose of the study, the proposed data collection methods, and the requirements of the participants. Ten schools were approached, and eight gave consent for their participation in the research. The two schools that did not want to participate had either a first-year-out teacher or casual/relief teacher on the kindergarten class for the year. Principals discussed the proposed research project with teachers before giving consent and a meeting was arranged with the author to discuss the research with teachers following the meeting with principals. Teachers were given an information package about the study, and were given time to read and respond to that
information prior to giving consent for themselves and their classrooms to be involved in the research.

5.1.2 Recruitment Procedures

Once principals had given consent and teachers had agreed to participate, teachers were asked to distribute information letters, consent forms and questionnaires to parents at the start of the kindergarten year. Every child in kindergarten at the participating schools was invited. Teachers sent forms home with children in their bag and notified parents on the school newsletter that the school was participating in this research project and that parents and children were invited to participate as well. The information letter explained the purpose of the study, what their and their child’s voluntary involvement would include and their rights as a voluntary participant.

A time was also specified for a parent information session to be held at each school, where parents could find out more about the purpose of the project and what their and their child’s participation would involve. These information sessions were either held at the beginning of the school day when parents were dropping their children off or just before the end of the school day when parents would be coming to pick their children up. All parents were also encouraged to call the author/researcher for more information if they could not attend these information sessions or simply if they had any questions about the research project. Parent attendance ranged from two parents to more than 30. On the advice of the teachers two of these information sessions were held in conjunction with parent-teacher information sessions, that were already being held at the school. Some parents completed consent forms for themselves and their child at these sessions, and others posted the consent forms back in stamped, self-addressed envelopes sent out with all information packages. At one school, all of the participating parents decided they would like to come back up to the school at a time that suited them to complete the parent questionnaires with the researcher present, so they would definitely find time to do it. This option was offered to all schools.

Two schools arranged for their Aboriginal Education Assistants (AEAs) to liaise with Indigenous families and encourage their participation in the research. AEAs were briefed about the research project at the same time as teachers, so they would be able to convey the purpose of the project and participant requirements appropriately.
5.1.3 **Timetable for data collection**

The school year starts in summer at the end of February in NSW public schools and ends around the 22\textsuperscript{nd} December. Data were collected at three intervals during the school year: Time 1 – week 6 to week 10 of the first term of kindergarten (March – April), Mid-point – third term of the kindergarten year (August), and, Time 2 – the fourth term of kindergarten (November). In sum, this project was a short-term longitudinal investigation. Recruitment of teacher, parent and child participants took place in the five weeks prior to data collection at Time 1. Within the four to five week window at Time 1, children were interviewed, and teachers and parents completed questionnaires. Classroom observations were conducted at the Mid-point data collection interval in Term 3 of kindergarten. At Time 2, children were again interviewed, and teachers and parents completed their final round of questionnaires.

5.2 **Participants**

5.2.1 **Schools**

Eight schools participated in the study. All schools were public schools within a 150km radius of a large regional centre in New South Wales, Australia. Two schools were Central schools, which covered kindergarten to year 12, and the other six were primary schools, which covered kindergarten to year 6. School enrolment numbers ranged from approximately 240 to 560 students ($M = 397$). The two Central Schools were located in smaller rural towns, with populations less than 3 000. Two of the public schools were located in towns with populations between 3 000 and 10 000, and four were located in the large regional centre with a population around 40 000. The Indigenous-Australian population for the region as a whole is around 10\% (ABS Census data, 2002).

Four of the eight schools were identified by the NSW Department of Education and Training as eligible for the Priority School Funding Program (PSFP). The PSFP provides additional assistance to schools with high concentrations of students from low socio-economic status backgrounds. There are 455 primary and central schools in NSW that have been identified to participate in this project out of a total number 1 698 of public primary and central schools (NSW DET, 2006).
5.2.2 Classrooms

Sixteen classrooms were included in this study. Five of these classes were following the new Department of Education initiative *twenty-is-plenty* for kindergarten classes, meaning there should be no more than 20 kindergarten children enrolled in any class at one time. The *twenty-is-plenty* plan proposes that by the year 2007, no more than 20 children shall be enrolled in any kindergarten classroom, and has so far been introduced into some of the states schools. The five schools participating in the current study, that have been trialling this plan, are reflected in the range of child enrolments presented in Table 5.1. The other classrooms had not been targeted for this program at the time the study was undertaken. Two classrooms were composite kindergarten/year 1 classes and the kindergarten children from these classes went to the other kindergarten teachers in those schools for most of the day (from the beginning of school until lunch time).

*Classroom Demographics*

The Kindergarten Teacher Classroom Inventory (see Appendix H) was used to gather information about classroom demographics. Teachers were asked to respond to nine questions, of which four were considered useful for analysis. Specifically, details were obtained about the number of children enrolled in the class, the number of aides or assistants in the room on average per week, the number of children with special needs or learning difficulties, and the number of children from an Indigenous-Australian cultural background. Details are presented in Table 5.1 for the number of teachers who responded to these questions (one teacher did not answer the question regarding the number of children from an Indigenous-Australian background).

The number of children enrolled in each class ranged from 17 to 27 ($M = 22.13$, $SD = 3.01$). This number is lower than the average class size ($M = 24.60$) reported for kindergarten classrooms in the NSW report on class size audit (NSW Department of Education, 2002). This item presents a satisfactory distribution of scores for use in later analyses involving the classroom environment.

The number of aides or teacher assistants who came into the class (on average) each week ranged between 1 and 5 ($M = 2.50$, $SD = 1.37$). This number does not include parent or community helpers, but only paid teachers or teacher assistants who
Table 5.1: Descriptive statistics for classroom demographics

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>Min.</th>
<th>Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children enrolled in class</td>
<td>16</td>
<td>22.13</td>
<td>3.01</td>
<td>17</td>
<td>27</td>
</tr>
<tr>
<td>Number of aides/week</td>
<td>16</td>
<td>2.50</td>
<td>1.37</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Children with special needs</td>
<td>16</td>
<td>3.81</td>
<td>3.82</td>
<td>0</td>
<td>16</td>
</tr>
<tr>
<td>Indigenous children</td>
<td>15</td>
<td>8.33</td>
<td>3.37</td>
<td>4</td>
<td>16</td>
</tr>
<tr>
<td>Ratio children/aides</td>
<td>16</td>
<td>12.40</td>
<td>7.62</td>
<td>3.4</td>
<td>25</td>
</tr>
</tbody>
</table>

are there to assist children who have been identified as having special needs, or children who have been identified as having learning difficulties, or who are Aboriginal Education Assistants employed to target academic deficits in indigenous children. In a separate question, teachers were asked to note how many children in the class had special needs or learning difficulties. (Note: It was not specified that teachers must only report children who had been formally identified or who had government funding, therefore the number of children identified is based solely on teacher opinion). There was a very wide range in teacher’s responses. Two teachers reported having no children with special needs or learning difficulties where as one teacher reported having 16 children with special needs or learning difficulties. Interestingly, the latter was the same teacher who had the highest number of children enrolled in their class ($n = 27$).

The number of Indigenous children in each class ranged from 4 to 16 ($M = 8.33$, $SD = 3.37$). This number represents those children who have been identified by their parents on enrolment in the school as being from an Aboriginal or Torres Straight Islander background. The number of Indigenous children in one class does not necessarily affect the amount of support or funding that a class gets from Aboriginal Education Assistants, which is dependent on individual school policies.

The ratio of children to aides was also calculated using the number of children in each class divided by the number of aides over the week. Figures ranged from 3.4: 1 to 25: 1 ($M = 12.4$, $SD = 7.6$), indicating that some classrooms averaged one aide for every 3.4 children, whereas other classrooms averaged one aide for every 25 children.

5.2.3 Teachers

Sixteen kindergarten teachers participated in this study (15 female, 1 male). Fifteen teachers were from an Anglo-Australian cultural background, and one teacher was from an Indigenous Australian cultural background.
Table 5.2 presents the means, standard deviations, minimum and maximum scores for the three items regarding teacher characteristics: age, total years teaching, and years teaching kindergarten. Teacher age was categorised into seven categories; (1) 20-25 years, 2 teachers; (2) 26-30 years, 2 teachers; (3) 31-35 years, 1 teacher; (4) 36-40 years, 0 teachers; (5) 41-45 years, 3 teachers; (6) 46-50 years, 5 teachers; (7) 51+ years, 3 teachers. Teachers’ age ranged from 20-25 years to more than 51 years with a mean of 4.69 (i.e., the mean score for teachers’ age was between 36 and 40 years. The total number of years teachers had been teaching ranged from 1 year to 34 years ($M = 20.17$, $SD = 10.73$). Even though only fifteen of the sixteen teachers answered this question, the variability in responses is important when using this measure in future analyses against other classroom factors and adjustment outcomes.

The number of years they had taught kindergarten (not necessarily consecutively) ranged from 0.5 to 30 years ($M = 8.0$, $SD = 7.5$). This indicated that some teachers had taught kindergarten nearly their entire teaching career while others were new to it. Twelve teachers had completed a Bachelor of Education (Primary), one had undertaken a Bachelor of Education (Early Childhood), and three teachers had undertaken some other education training such as a two-year degree at teachers college before university degrees were standard. One teacher had a graduate diploma as well as an undergraduate teaching degree. Of the sixteen, one teacher had taught in prior-to-school settings as well as schools, but did not indicate the number of years they had done this.

<table>
<thead>
<tr>
<th>Table 5.2: Descriptive statistics for teacher characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>$N$</td>
</tr>
<tr>
<td>------</td>
</tr>
<tr>
<td>Age</td>
</tr>
<tr>
<td>Total years teaching</td>
</tr>
<tr>
<td>Years teaching kindergarten</td>
</tr>
</tbody>
</table>

Bivariate correlation analyses were conducted on teacher's age and total years teaching, and total years teaching and years teaching kindergarten to determine whether or not one variable could be representative of teacher characteristics for future analyses. Teacher's age and total years teaching were highly correlated, $r (15) = .97, p < .001$, as were total years teaching and years teaching kindergarten, $r (15) = .74, p < .001$, therefore it is proposed that only the total years teaching variable needs to be used for future analyses involving teacher characteristics.
5.2.4 Parents

A total of 105 parents agreed to participate, the majority being mothers. Two fathers signed consent forms and completed questionnaires. Of the parents who agreed to participate, 92 completed the Kindergarten Transition Parent Questionnaire (see Appendix F), which provided descriptive information regarding family demographics and socio-economic status. A summary of the descriptive statistics for parent demographic information is presented in Table 5.3.

Data on parent education showed that 42 mothers had completed Yr 11 or less, 21 mothers and one father had completed Year 12 (or the higher school certificate), 12 who had completed a TAFE diploma/certificate, and 12 mothers and one father who had completed a university degree. Two mothers did not respond to this question. Three categories were constructed from these results 1 = completed less than year 12, 2 = completed year twelve, and/or TAFE certificate, 3 = completed university qualification. Forty-three parents were employed (41 mothers) and forty-eight (48) were not currently employed (1 did not respond to this question). Sixty-four parents reported living in a two-parent family, 15 were single parents and 12 parents did not respond to this question.

Table 5.3: Descriptive statistics for parent demographics

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>Min.</th>
<th>Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maternal education (0-3)</td>
<td>89</td>
<td>1.67</td>
<td>.72</td>
<td>1.00</td>
<td>3.00</td>
</tr>
<tr>
<td>Employment status (employed)</td>
<td>91</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family structure (single parent)</td>
<td>91</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5.2.5 Children

At the first period of data collection (Time 1) 105 kindergarten children (53 girls, 52 boys) participated in this study. At the second stage of data collection (Time 2) 99 children remained. Some children had changed schools either within the district or interstate, and one was not able to complete the instruments appropriately due to her developmental delay, so was left out of the Time 2 data collection phase.
At the beginning of the school year children’s ages ranged from 4.7 years to 7.0 years \((M = 5.4 \text{ years})\). Most children (85%) were from an Anglo-Australian cultural background, 13% were from an Indigenous-Australian cultural background and 2% had a Language Background Other Than English.

Six children (5.7%) in this sample were identified and or had funding for special needs. Two children were identified as having a Global Developmental Delay, 1 child was identified as having Attention Deficit Hyperactivity Disorder, 1 child was diagnosed with Autism Spectrum Disorder, 1 child was diagnosed as having Asperger’s Syndrome, and 1 child had Down syndrome.

_Siblings._ Data collected from parents at Time 1 \((N = 92)\), indicated that within the sample there were two sets of twins, and seven singletons, 17 children with one older sibling only, 18 children with one younger sibling only, 13 children with two or more older siblings, six children with two or more younger siblings, and 30 children (including the sets of twins) with a combination of older and younger siblings.

_Siblings attending the same school._ Fifty-eight children had other siblings attending the same school when they started kindergarten, and 31 had no other siblings at the school (three parents did not respond to the question).

_Prior-to-school experience._ Parents reported that 85 children (92%) had attended preschool/childcare in the year before starting school. Of those, 58 attended 1 or 2 days/week, and 27 attended 3 or more days/week. Seven children (8%) did not attend preschool/childcare.

_Peer experiences._ Parents were also asked about their children’s prior-to-school peer experiences, including whether or not they had familiar peers and/or siblings attending the same school. Twelve (12) children knew no children in their class (or at their school) before they started kindergarten, 35 children knew one or two children, and 45 children knew three or more. Over half of the children (53%) had no close friends who went to their school when they started. Of the remaining children 28% had one or two close friends, and 18% had three or more close friends.
5.3 Instruments

5.3.1 Teacher Reported Child Adjustment

Teachers were asked to complete two questionnaires assessing children’s school adjustment and the teacher’s relationship with the child at the beginning (Time 1) and end (Time 2) of the year.

*Teacher Rating Scale of School Adjustment (TRSSA).* The TRSSA (Birch & Ladd, 1997) has been used in many studies of adjustment to school (e.g., Ladd et al., 1999; Buhs & Lieske, 2005). It contains a total of 52 statements that are designed to tap constructs that reflect young children’s behavioural and relational adjustment to school. Teachers rate the extent to which each of the given descriptions applies to the child using a 3-point scale (0 = doesn’t apply, 1 = applies sometimes, 2 = certainly applies). Birch and Ladd (1997) identify five underlying constructs that describe adjustment: Cooperative participation (e.g., “listens carefully to teacher’s instructions and directions”, “is easy for teacher to manage”); Self-directedness (e.g., “seeks challenges”, “is a confident child”); Teacher’s perceptions of children’s school liking (e.g., “likes being in school”, “has fun at school”); Teacher’s perceptions of children’s school avoidance (e.g., “asks how long it is until it is time to go home”), and; Teacher’s perceptions of children's interest or comfort with the teacher (e.g., “initiates conversations with teacher”). Subscale scores were computed using Birch and Ladd’s (1997) structure for early TRSSA subscales, which were developed by the researchers in their initial study regarding the teacher-child relationship and the process of adjusting to school. Birch and Ladd report a high level of internal consistency for each of the five subscales: Cooperative Participation (8 items, alpha = .92), Self-directedness (9 items, alpha = .91), School Liking (5items, alpha = .89), School Avoidance (5 items, alpha = .74), Comfort with Teacher (5 items, no alpha reported).

*Student Teacher Relationship Scale (STRS).* The STRS (Pianta, 2001) is a 28-item self-report instrument that uses a 5-point Likert-type rating scale to assess teachers perceptions of their relationship with a student, a student’s interactive behaviour with the teacher, and a teacher’s beliefs about the student's feelings toward the teacher (1 = definitely does not apply, 2 = does not really apply, 3 = neutral, not sure, 4 = applies somewhat, 5 = definitely applies). The STRS has been used in other studies of school adjustment to examine patterns of relationships between children and teachers (e.g.,
overseas; Birch & Ladd, 1997; Pianta, 1994; Pianta & Steinberg, 1992; Thijs & Koomen, 2005, and in Australia; Harrison & Ungerer, 2006).

Pianta (2001) identifies three factor-based subscales that “capture three dimensions of student-teacher relationships” (p. 1): Conflict (e.g., “this child and I always seem to be struggling with each other”), Closeness (e.g., “I share an affectionate, warm relationship with this child”), and Dependency (e.g., “this child is overly dependent on me”). Raw scores from these three subscales are used to compute a total scale score for the overall quality of the student-teacher relationship. Internal consistency (as obtained by Cronbach’s alpha method) of a total normative sample (N = 1,535) identified by Pianta (2001) as being collected from teachers between 1991 to 2001, was high for the conflict (α = .92), closeness (α = .86) and total score (α = .89) subscales and reasonable for the dependency subscale (α = .64).

5.3.2 Parent reports

Parent reports of children’s early and later school adjustment at Time 1 and Time 2, as well as their behaviour and temperament in the home environment, at Time 1, were drawn on to give an other perspective of the adjustment process and factors that affect it. In addition to information about the child, information regarding the family and household environment was also collected at the beginning of the school year (Time 1).

Child Early Behaviour and Temperament at Home

The Early School Behaviour Rating Scale (ESBRS). The ESBRS (Pianta, 1990) was completed by parents at Time 1, and is a 43-item measure of competencies and behaviour problems among children aged 4 to 7 (Pianta, 1991). Each item in the ESBRS is rated on 4-point scale based on how the description of behaviour relates to the child (1 = hardly ever, 4 = almost always). The ESBRS consists of three subscales: Conduct problems, Anxiety scale, and Competence scale. The Conduct problems scale has 9 items and is intended to measure externalising behaviours (Caldwell and Pianta, 1991). The Anxiety scale has 18 items and was designed to measure “internalising dimensions of behaviour” (p. 35, 1991). The Competence scale was designed to measure “effectiveness in self-regulation, prosocial skills, tension-management, and social adjustment” (p. 35, 1991). A Total Problem Scale score can be computed by summing the Conduct and Anxiety subscale scores. All subscales have shown good internal
consistency (Caldwell & Pianta, 1991): Conduct Problems ($\alpha = .72$), Internalising/Anxiety Problems ($\alpha = .68$), Competence ($\alpha = .79$) and Total Problem Scale ($\alpha = .79$).

The Short Temperament Scale for Children (Sanson, Smart, Prior, Oberklaid, & Pedlow, 1994) is a 30-item questionnaire that is designed to assess four temperament dimensions: Approach (high = shy, not approaching) (7 items), Rhythmicity (high = not rhythmic) (7 items), Inflexibility (high = inflexible, highly reactive) (9 items), and Persistence (high = impersistent) (7 items). Parents rate items on a 1-6 scale (1 = almost never to 6 = almost always), indicating the extent to which they are characteristic recent/current behaviours of the child. The Australian Temperament Project (1988) has used the measure with toddlers and school-age children and reports moderate to high levels of internal consistency for each of the four subscales ($N = 1581$); Approach ($\alpha = .84$), Rhythmicity ($\alpha = .66$), Inflexibility ($\alpha = .82$) and Persistence ($\alpha = .85$).

Parent-rated School Adjustment

Parent ratings of children’s adjustment and feelings about school were included in this study so to gather another perspective of the children’s school liking from a significant adult. It was expected that parent’s ratings of school liking might correspond with children’s self-reported liking and positive feelings about school. Questionnaires which tap parent’s observations of how their child is adjusting at the beginning and end of the kindergarten year were included.

The Adjusting to School section of the Kindergarten Transition Parent Questionnaire (Pianta & Kraft-Sayre, 2003) asks parents six questions (see Appendix F). The first four are closed-ended questions, drawn from the School Liking and School Avoidance Scale (Ladd & Price, 1987) (such as “does your child look forward to going to school in the morning?”) which were coded from 1 to 3; 1 = “not at all”; 2 = “sometimes”, and; 3 = “often/usually”. Parents were also given the option to write about an example of their child’s typical behaviour before school, and to explain how they felt when their child started school. The four questions directly relating to children’s school adjustment were combined and a total Time 1 parent-rated adjustment score was created.

An Adjustment to School Parent Questionnaire (see Appendix G) was also administered at Time 2 to correspond with the adjustment items in the previous
Kindergarten Transition Parent Questionnaire, and was devised by the researcher to elicit information from parents about children’s adjustment to school at the end of the school year. A separate measure was used at the end of the year as the parents were no longer required to offer information regarding transition practices and family demographic information that the Time 1 questionnaire asked of them. The school adjustment questions were the same as those administered at Time 1 and again drew on concepts from Ladd and Price’s (1987) School Liking and School Avoidance Scale. Responses to these questions were based on a 5-point rating scale (1 = never, 2 = rarely, 3 = sometimes, 4 = usually, 5 = always), and parents were asked to circle one of the five responses based on their child’s typical behaviour on a school day. This five-point scale was converted to a three-point scale for future correlations with the parent-rated adjustment variable at the beginning of the year. The four items assessing school liking at the end of the year were combined to form a total Time 2 parent-rated child adjustment score with reasonable internal reliability.

**Parent-teacher Relationship**

Parents were asked two questions in the Adjustment to School Parent Questionnaire regarding their relationship with their child’s teacher at the end of the kindergarten year: (1) Do you feel comfortable approaching your child’s teacher? (2) Do you feel you have a good relationship with your child’s teacher? These questions were based on Pianta and Kraft-Sayre’s (2003) Transition Activities Questionnaire that asks parents what their relationship with their child’s teacher is like. Responses to these two questions were rated on a 1 to 5 scale (1 = never, 5 = always) and summed to create a total parent-teacher relationship score.

**5.3.3 Child Measures**

Child measures provided information on children’s feelings about school as well as their academic achievement and receptive language skills. Children were interviewed twice during the kindergarten year: Time 1, at the beginning of the year, and Time 2, at the end of the year. Interviews were conducted with individual children for approximately 30 minutes, in a place familiar to the child and close to their classroom. Child self-reports of their feelings about school, their teacher and strategies for coping with situations at school were collected at Time 1 and Time 2. At Time 1, children were asked to complete the Pictorial Measure of School Stress and Wellbeing (PMSSW), and
the Peabody Picture Vocabulary Test (III A). At Time 2, children were again asked to complete the PMSSW as well as the School Feelings Questionnaire, and the Who Am I? The following section on child measures will be broken into two smaller sections: child self-reports and child assessments.

**Child Self-reports**

*Pictorial Measure of School Stress and Wellbeing (PMSSW).* The PMSSW was administered to children at both Time 1 and Time 2 following the procedures outlined in Chapter 4. Individual interviews, approximately 15-20 minutes, were audiotape recorded for later transcription and coding. Prior to commencing the interview, children were shown how the tape recorder worked and asked for their verbal consent to record the interview.

*School Feelings Questionnaire (SFQ).* The SFQ is an adaptation of the School Liking and School Avoidance Scale (Ladd & Price, 1987) which contains 14 items assessing two subscales: school liking and school avoidance. The SFQ reduced the number of items for school liking (6 items) and school avoidance (5 items) and added new items to assess children’s feelings about their teacher (5 items) and peers (5 items). The original SLAS format was used for the 21 items in the SFQ: “yes”, “no”, or “sometimes”.

The original SLAS school liking subscale contains 9 items which ask children, for example “is school a fun place to be?” “Are you happy when you go to school?” The school avoidance subscale contains 5 items which ask children, for example, “Do you wish you didn’t have to go to school?” “Would you like it if your mum or dad let you stay home from school?” Both subscales in the original SLAS had good internal reliability when used in more recent research (school liking: $\alpha = .87$; school avoidance: $\alpha = .76$; Birch & Ladd, 1997).

**Child Assessments**

*Peabody Picture Vocabulary Test (PPVT III A).* The PPVT is a standardised measure of receptive vocabulary and was used at Time 1 in the current study as an “achievement test of the level of a person’s vocabulary acquisition…or as a screening test of verbal ability” (Dunn & Dunn, 1997). The test is designed for people aged 2.5 years to 90+ years and has been standardised nationally (in the U.S.) on a stratified sample of 2,725 persons. The PPVT III A generates a raw score that can be converted
into age-referenced normative scores such as standard scores, percentiles, and age-equivalents. The PPVT is reported to have high test-retest reliability, and its scores correlate well with other standardised measures of verbal ability and mental age. This measure has been used in other studies of adjustment to school at the beginning of the school year (e.g., Administration for Children and Families, 2000; Ladd & Price, 1987; Harrison & Ungerer, 2001; Schoen & Nagle, 1994) as an indicator of children’s mental age.

Who Am I? The Who Am I? (de Lemos & Doig, 1999) is an Australian measure including an 11-item task booklet completed by children, which provides an assessment of young children’s achievement in learning, by assessing the “cognitive processes that underlie the learning of early literacy and numeracy skills” (p. v). The Who Am I? generates three subscales: copying (of geometric figures) (5 items), symbols (the child’s awareness of these) (5 items) and drawing (a picture of self) (1 item), all of which will be used in this study. The copying tasks assess children’s ability to conceptualise a given figure. The symbols task focuses on the understanding that symbols have particular meanings, and that there are different symbols that exist and different names for these symbols. The drawing scale is used as a general indicator of children’s intellectual development. Items on the Who am I? are scored on a scale of increasing competence (0 to 4). The authors report a high test-retest reliability for the Who am I? (0.91) indicating a high level of internal consistency for the tasks. Alpha coefficients used to measure the internal reliability of the copying and symbols subscales for the current study were also high, being .75 and .82 respectively. These three subscales combine to generate a Total Scale score of the children’s overall achievement. The Total Score scale also had high internal reliability (α = .86).

When compared with the basic statistics for school-level norm groups identified by de Lemos and Doig (see 1999, p. 24), children in the current study were slightly below the average age for Pre-Year 1 (Mean age = 5.4 years for current group, and 5.9 years for norm group), yet slightly above average for the mean Total Scale score (current group $M = 34.2, SD = 5.62$; norm group $M = 33.9, SD = 4.5$). If using the basic statistics for age norm groups to compare the current group (Mean age = 5.4) with other children in the same age group, the current children are again above the average mean score (norm group $M = 31.1, SD = 5.2$).
5.3.4 Classroom Quality Measures

The nature of the classroom environment was assessed using two measures: The Kindergarten Teacher Classroom Inventory, and the Classroom Observation Instrument – Kindergarten. The first measure asks teachers to rate their goals and the aspects of children’s development and knowledge they consider being most important for children in kindergarten. The second measure was developed by the author and other researchers involved in the Child Care Choices study (Bowes et al., 2004) to assess the quality of the classroom environment on three aspects: management, social climate and instruction. The two measures will be examined in detail below.

Teacher Reported Goals

Teaching goals were based on a measure developed by Stipek and Byler (2004) which asks teachers to rate on a 1-5 scale (1=least important, 5=most important) the skills that they feel are most important for children to have when they come to school. They include, work habits, factual knowledge, basic skills, motor skills, critical thinking, creativity, self-concept, independence and initiative, social skills and cooperation. Three subscales are formed from these items: basic skills (4 items), higher order thinking (3 items), and social development (2 items). Internal reliability based on using the measure with 127 kindergarten to second-grade teachers, as reported by Stipek & Byler (2004), was only just adequate for two of the three subscales, basic skills ($\alpha = .64$) and social development, $r = .34$, $p < .001$ (no alpha reported for two items). Higher order thinking was not adequate ($\alpha = .53$).

Classroom Observation

The Classroom Observation Instrument – Kindergarten (COI-K) was developed to assess the quality of the learning environment and teacher-child interactions within a kindergarten classroom environment. Social, emotional and behavioural aspects of the classroom climate are evaluated to obtain an overall index of the learning environment. The COI-K uses assessment items from two measures: the Early Childhood Classroom Observation Measure (ECCOM) (Stipek & Byler, 2004) and the NSW Quality Teaching Classroom Observation Guide (QT) (University of Newcastle, Australia, and NSW Department of Education, 2004). Items from the ECCOM assess the use of positive and negative discipline strategies, the degree of teacher warmth and responsiveness, the encouragement of children’s
communication skills, and the support given by the teacher for interpersonal skills. Items from the QT measure assess the quality of explicit criteria given to children, the degree of engagement throughout the lesson, the extent to which high expectations are communicated to children, the degree of social support within the classroom, student’s self-regulation, and the amount of student direction on the learning activities being undertaken in the classroom.

The COI-K has been specifically designed for use in kindergarten classrooms (typical age of children is between 4.5 to 6 years). However, as the ECCOM has been designed for use with children up to 7 years of age and the QT measure has been designed for use with children from kindergarten to Year 12, it would be reasonable to use the COI-K in first grade classrooms as well.

The 10 items in the COI-K assess 3 broad areas: Classroom Management, Social Climate, and Instruction/Pedagogy. Four assessment items are drawn from the ECCOM and six are drawn from the QT measure (items have been selected from each measure after assessing the degree of overlap and complementarity of the two measures).

**Classroom Management.** Three items; one item from the ECCOM; discipline strategies, and two items from the QT measure; student self-regulation and student direction assess the classroom management subscale. Classroom management refers to the degree of child responsibility within the classroom (student’s self-regulation), the choice of activities (student direction), and the classroom management and discipline strategies employed by the teacher. Classrooms that score highly on these items illustrate that students demonstrate autonomy and initiative in regulating their own behaviour and the lesson proceeds without interruption, that students exercise some control or direction over the selection of activities, and that the teacher uses positive discipline techniques with conflict resolution and interruptions to the lesson being smooth and brief while discipline is carried out in a calm, non-threatening manner.

**Social Climate.** Three items from the ECCOM; teacher warmth/responsiveness, children’s communication skills, and support for interpersonal skills, and two items from the QT measure; engagement, and social support assess the Social Climate subscale. The quality of the Social Climate refers the degree to which the classroom climate promotes respect for individuals and individual differences. A classroom that has high “best practice” scores on the items of teacher warmth/responsiveness, children’s communication skills and support for interpersonal skills is characterised by
teachers who are genuinely warm, understanding, respectful and responsive toward children and who encourage children to engage in conversation. Teachers talk and listen to individual class members, and the class as a group. Classrooms that score highly in the “best practice” category of these items also have teachers who promote the development of children’s interpersonal skills by providing opportunities for cooperative small group activities and facilitating children's development of prosocial or interpersonal problem-solving skills.

Instruction/pedagogy. Two items from the QT measure assess Instruction/Pedagogy: Explicit quality criteria and high expectations. The instruction/pedagogy items assess pedagogical practices that create classrooms where students and teachers “work productively in an environment clearly focused on learning” (NSW DET 2003, p. 25). This includes the degree to which students are provided with explicit quality criteria for their work and the amount of challenging work children undertake. Classrooms that score highly on these aspects of the teaching and learning environment have teachers who offer detailed explicit criteria regarding the quality of children’s work throughout the lesson and students who examine the quality of their work in relation to these criteria. Classrooms are also scored highly if there is evidence of students consistently participating in challenging work (and being encouraged to do so) and also being recognised for trying hard and taking risks.

Scoring System for the Classroom Observation Instrument - Kindergarten

The two separate sections of the COI-K are scored differently, according to the guidelines for each system. Each use a 1-5 rating systems, but the ECCOM is based on the percentage of time in which activities or behaviours are observed, whereas the QT measure is based on specific and explicit levels of criteria for observable events. The two scoring procedures are discussed in more detail below.

Early Childhood Classroom Observation Measure. For the ECCOM, scoring items are criterion-based, with descriptions and examples to guide the observer. For most areas there are three aspects to score: “A” = “Best practice” – shared responsibility for both management and learning. Clear developmentally appropriate teacher determined instructional goals are balanced and integrated with student initiatives and interest. “T” = Teacher controlled and directed classroom that emphasises the
acquisition of basic academic skills. Social skills are not emphasised. “C” = Child-dominated classroom with little teacher direction or control.

Ratings for the ECCOM are on a 1-5 scale, and after the period of observation, a rating score is given as follows:
5 = these practices predominate (80% to 100% of the time)
4 = these practices are prominent (from 60% to 80% of the time)
3 = these practices are sometimes seen (from 40% to 60% of the time)
2 = these practices are not seen very much (from 20% to 40% of the time)
1 = these practices are rarely seen (less than 20% of the time)

A high quality environment will score high on the A (“Best practice”) items, but low on the T and C items.

**Quality Teaching Measure.** Items from the Quality Learning Environment section of the Quality Teaching document are described by explicit criteria for each of five levels that increase in quality. Scores are determined according to the best match to the stated criteria for the classroom being observed. An example for one of the items follows:

**Student direction.** This subscale looks at the extent to which students exercise some direction over the selection of activities related to their learning and the means and manner by which these activities will be done. Classrooms with high student direction see students exercising control over one or more of the following: choice of activities; time spent on activities; pace of the lesson; criteria by which they will be assessed.

1 - No evidence of student direction. All aspects of the lesson are explicitly designated by the teacher for the students.
2 - Low student direction. Although students exercise some control over some aspect of the lesson (choice, time, pace, assessment), their control is minimal or trivial.
3 - Some student direction. Students exercise some control in relation to some significant aspects of the lesson.
4 - Substantial student direction. Some deliberation or negotiation occurs between teacher and students over at least some significant aspects of the lesson.
5 - High student direction. Students determine many significant aspects of the lesson either independent of, or dependent on, teacher approval.

A high score on items from this measure indicates an environment higher in quality. The whole COI-K scale will be in Appendix E.
Administration of COI-K. Classroom observations were conducted for at least 1 hour. The researcher observed and recorded (anecdotally) all teaching and teacher-child interactions that took place within the observation time. Observations were guided by looking for teaching and learning experiences that exemplified the criteria set out in the ten COI-K items. It was important that the observer became familiar with the scoring items, descriptions and examples as set out in the Classroom Observation Instrument – Kindergarten, Item Information (see Appendix E), before attending classrooms to be observed. Prior to commencing data collection, classrooms were observed as practice sessions in schools not participating in the current study. These practice sessions were used to test the appropriate duration of the observations and determine other logistical aspects of the observations, such as where to sit in the classroom so not to interrupt the teacher or children, and how best to introduce the observer, so children would not change their normal behaviour.

Observations were only conducted prior to lunch; there were no classroom observations in afternoon sessions. Stipek & Byler (2004) note that the morning session is children’s prime classroom activity time. Activities after lunch are often less structured and do not provide observers with a true perspective of the teaching and learning aspects of the classroom climate. It was also important to avoid scheduling observations on days where classes have assembly, sport or excursions. Every effort was made to ensure the child's regular classroom teacher was teaching at the time of the observation.

The same observer (the author) undertook the classroom observations for the current study, having established inter-rater reliability with research assistants participating in an external research project. Scoring was completed immediately after the observation period. Initial training was undertaken by two observers (including the author). These observers were trained in observing classrooms and coding classroom data. Following this, the trained observers conducted a number of classroom observations together. Inter-rater reliability for exact matches on the scoring system for classroom quality was 90%.

5.3.5 Summary of Instruments and Data Collection Times

A summary of the instruments used in this study and the times of the year at which they were administered are presented in Table 5.4. Random missing data was treated using the maximum likelihood algorithm in SPSS missing value analysis.
Missing value analyses were only conducted on teacher and parent questionnaire data. Missing data from teachers was attributed to teachers missing part or all of a questionnaire on themselves or an individual child. These missing data were only picked up after the allocated completion time, therefore teachers were not followed up to obtain this information. Missing data from parents was attributed to parents not completing forms properly, that is, some parents missed random questions in the Early School Behaviour Rating Scale and the Short Temperament Scale for Children. At Time 1, 92 parents returned questionnaires, and at Time 2, 79 parents returned questionnaires. Missing data from children occurred only for one child whose birth date was not given to the researchers after numerous follow-ups. At Time 1, although there were 105 children recruited and all completed Peabody Picture Vocabulary Test, not all were able to meet the cognitive requirements of the Pictorial Measure of School Stress and Wellbeing, therefore only 101 children completed this measure. At Time 2, even though 99 children completed the Who Am I?, only 96 could complete the PMSSW and the School Feelings Questionnaire. At the mid-point of data collection, 16 teachers and classrooms were observed for classroom quality, however only 15 fully completed the Kindergarten Teacher Classroom Inventory.
<table>
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<tr>
<th>Instrument</th>
<th>Items</th>
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<th>$N^a$</th>
<th>Time 2</th>
<th>$N$</th>
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<td>Cooperative Participation</td>
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<td>Self-directedness</td>
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<td>School Avoidance</td>
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<td>Comfort with Teacher</td>
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<tr>
<td>Dependency</td>
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<td>Internalising/Anxiety Problems</td>
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<td></td>
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<td>105</td>
<td>-</td>
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<td></td>
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<td>-</td>
<td></td>
<td>✓</td>
<td>96</td>
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<td>School Avoidance</td>
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<td>Teacher Liking</td>
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<td>Peer Liking</td>
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<td><strong>Classroom</strong></td>
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<td>Kindergarten Teacher Classroom Inventory</td>
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<td>Basic Skills</td>
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<td>Higher Order Thinking</td>
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<td>Classroom Observation Instrument – Kindergarten</td>
<td>10</td>
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<td>Management</td>
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<td>Social Climate</td>
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</tr>
<tr>
<td>Instruction</td>
<td>2</td>
<td></td>
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</tr>
</tbody>
</table>

Mid-point

$^a$ number of children
$^b$ number of teachers
$^c$ number of classrooms
5.3.6 Chapter Summary and Data Analysis Plan

This chapter has described the research participants and data collection techniques in detail. In order to obtain a holistic picture of the process of adjusting to school and in light of the need to contextualise children’s adjustment over the first year, data has been collected from children, teachers and parents, at the beginning and end of kindergarten.

Procedures for analysing data in the next three results chapters will firstly include an analysis of the descriptive statistics for child and family factors, adjustment and interpersonal relationship factors, and classroom factors. Inter-relationships between components of the proposed model of school adjustment, presented in Chapter 6, will be tested using Pearson’s product-moment correlation coefficient. This type of correlation procedure is designed for interval level variables and can also be used when one dichotomous variable is entered into the correlation analysis (Pallant, 2005). In cases where ordinal level data is used in analyses, Spearman’s rank order correlation will be utilised to obtain a correlation coefficient.

Chapter 7 will present the results from both descriptive statistics and correlation analyses of the Pictorial Measure of School Stress and Wellbeing (PMSSW) with teacher and parent ratings of school adjustment and interpersonal relationships, at the beginning and end of the year. Frequency distributions of children's responses to each PMSSW question will be presented and interpreted with regard to children’s feelings about school, their feelings about their teacher and their strategies for coping in school situations over time. In accordance with the proposed model of school adjustment, change over time in children’s responses to the PMSSW will be examined using paired samples t-tests, which will be used to test whether there is a significant change in children’s responses to the PMSSW scenarios from the beginning (Time 1) to the end (Time 2) of the year.

Chapter 8 will analyse the components of the proposed model of school adjustment in greater depth. Multiple regression analyses will be used to test the predictive effects of child and family factors on early and later interpersonal factors and early and later child adjustment factors. The quality of the classroom environment will also be examined regarding its predictive effects on early and later interpersonal relationships and early and later child adjustment outcomes. Hierarchical regression analyses were chosen so to enter the independent variable into regression equations in a sequential order, based on theoretical understandings of the predictive nature of certain
child and family influences on the process of adjustment. As Pallant (2005) explains, “variables or sets of variables are entered in steps (or blocks), with each independent variable be assessed in terms of what it adds to the prediction of the dependent variable…(and) the relative contribution of each block is also assessed” (p. 141).

The following chapter will present the results for three main components of the process model of school adjustment: child and family factors, adjustment and interpersonal relationship factors, and classroom processes. Descriptive statistics for child, teacher and parent measures administered at the beginning and end of the kindergarten year will be presented and analysed, along with classroom quality assessed at the mid-point in the school year.
6 RESULTS

This chapter presents the results pertaining to the three main domains of the proposed model of school adjustment: child and family factors, child adjustment and interpersonal relationships, and the school and classroom context. First, descriptive statistics for measures of child and family characteristics are presented to examine personal factors which may affect the adjustment process. Second, child adjustment and interpersonal relationships are examined by analysing teacher, parent and child ratings of adjustment and teacher and parent ratings of relationship outcomes. Finally, results pertaining to the quality of the classroom are presented by drawing on teacher-ratings and classroom observations. Intercorrelations within each section of the model are also presented. Results from the Pictorial Measure of School Stress and Wellbeing are not presented in this chapter. These results form the basis for later analyses, described in Chapter 8.

6.1 Child and family factors

Characteristics of the child and their family have a direct influence on children’s reactions to the formal school environment and their strategies for coping with everyday school situations. This section of the chapter will present the descriptive statistics for measures assessing child characteristics at the beginning of the school year. Bivariate correlations between child characteristics and the components of the family, including the parent-teacher relationship and demographic factors of maternal education and single parent status (presented in Chapter 5) will be undertaken.

6.1.1 Child characteristics

Data gathered on children’s temperament, behaviour at home, and language ability was used to provide a picture of individual children as they started school. Research indicates that children who are rated by their parents as having a more difficult temperament and displaying more problem behaviours in the home environment are more likely to experience problems with adjusting to school and developing relationships with peers and teachers (Margetts, 2000a). Children's language ability is also a contributing factor in their ability to develop relationships and meet academic expectations of the school environment.
Short Temperament Scale for Children

Table 6.1 presents the means, standard deviations, minimum and maximum scores, and Cronbach alpha coefficients (α) for the subscales and total easy/difficult scale of the Short Temperament Scale for Children. All alphas (ranging from .72 to .83) indicated reasonable internal reliability.

Table 6.1: Descriptive statistics for Short Temperament Scale for Children

<table>
<thead>
<tr>
<th>Subscale</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>Min.</th>
<th>Max.</th>
<th>α</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approach (7 items)</td>
<td>90</td>
<td>20.32</td>
<td>7.10</td>
<td>8.00</td>
<td>39.00</td>
<td>.83</td>
</tr>
<tr>
<td>Rhythmicity (7 items)</td>
<td>90</td>
<td>18.88</td>
<td>6.04</td>
<td>7.00</td>
<td>36.00</td>
<td>.72</td>
</tr>
<tr>
<td>Inflexibility (9 items)</td>
<td>90</td>
<td>27.16</td>
<td>7.53</td>
<td>13.00</td>
<td>50.00</td>
<td>.75</td>
</tr>
<tr>
<td>Persistence (7 items)</td>
<td>90</td>
<td>21.81</td>
<td>6.04</td>
<td>12.00</td>
<td>39.00</td>
<td>.79</td>
</tr>
<tr>
<td>Total easy/difficult scale (17 items)</td>
<td>90</td>
<td>23.10</td>
<td>4.74</td>
<td>14.76</td>
<td>36.67</td>
<td>.81</td>
</tr>
</tbody>
</table>

Note: N = 90, only 90 out of the 105 parents completed and returned this measure.

Scores on the approach, rhythm and persistence subscales have a possible range of 7 to 42, and scores on the inflexibility subscale have a possible range of 9 to 54. For the total easy/difficult scale score, lower scores are considered to represent a more easy type of temperament, and conversely higher scores are indicative of a more difficult temperament. The minimum and maximum scores represented the full range of possible scores for the four subscales and the total easy/difficult scale score, and mean scores were in the middle of this range. Alphas reported for the current sample are comparable to those reported by Sanson et al. (1994).

Early School Behaviour Rating Scale

The means, standard deviations, minimum and maximum scores, and Cronbach alpha coefficients for the subscales of the Early School Behaviour Rating Scale – Parent, are presented in Table 6.2. The number of parents who completed this measure at Time 1 was 91. Cronbach alpha coefficients for the three subscales were high indicating good internal reliability in each. The conduct and internalising subscale scores were added to compute a total problem scale score, which also had high internal reliability (α = .86). Alphas reported for the current study are higher than those reported by Caldwell and Pianta (1991) when they developed the measure. The distribution of scores for the subscales in this measure showed a good range with means in the middle.
Table 6.2: Descriptive statistics for Early School Behaviour Rating Scale – Parent

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>Min.</th>
<th>Max.</th>
<th>α</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conduct Problems (9 items)</td>
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<td>15.75</td>
<td>4.20</td>
<td>9.00</td>
<td>30.00</td>
<td>.81</td>
</tr>
<tr>
<td>Anxiety Scale (18 items)</td>
<td>91</td>
<td>32.64</td>
<td>7.34</td>
<td>21.00</td>
<td>65.00</td>
<td>.82</td>
</tr>
<tr>
<td>Total Problem Scale (27 items)</td>
<td>91</td>
<td>48.39</td>
<td>9.82</td>
<td>34.00</td>
<td>84.00</td>
<td>.86</td>
</tr>
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<td>Competence Scale (16 items)</td>
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<td>37.22</td>
<td>3.74</td>
<td>27.00</td>
<td>45.00</td>
<td>.82</td>
</tr>
</tbody>
</table>

Note: N = 91, only 91 out of the 105 parents completed and returned this measure.

of expected and observed minimum and maximum scores.

Bivariate correlation analyses were conducted to determine whether the number of variables that explained children’s behaviour could be reduced for use in future analyses. The total problem scale did not correlate at all with the competence scale ($r = -.05, p = .64$) indicating that these two subscales are indeed assessing two separate constructs, and that both subscales need to be included in future analyses.

**Peabody Picture Vocabulary Test**

The Peabody Picture Vocabulary Test IIIA (PPVT; Dunn & Dunn, 1997) was administered to children at Time 1 to assess children’s receptive vocabulary and mental age on school entry. Table 6.3 presents the means, standard deviations, minimum and maximum scores for the PPVT. Descriptive statistics for children’s age at Time 1 are presented also. Only 104 children are represented in this table, as one child's date of birth was not given to the researcher after numerous follow-ups. Therefore age-equivalent scores and standard scores could not be calculated, and it was decided that the raw score for this child would not be included in the table either.

Table 6.3: Descriptive statistics for PPVT IIIA at Time 1, and child age at Time 1

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>Min.</th>
<th>Max.</th>
</tr>
</thead>
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<td>67.85</td>
<td>17.90</td>
<td>9.00</td>
<td>105.00</td>
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<td>Standard Score</td>
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<td>96.79</td>
<td>14.99</td>
<td>40.00</td>
<td>124.00</td>
</tr>
<tr>
<td>Child Age (Years)</td>
<td>104</td>
<td>5.44</td>
<td>0.42</td>
<td>4.67</td>
<td>7.00</td>
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</table>

Children’s raw scores ranged from 9 to 105 ($M = 67.85, SD = 17.90$) indicating a very wide variation in children’s cognitive abilities when they start school. Even
though this number includes two children who have been diagnosed with a global
developmental delay and Down syndrome, respectively, and may have an aide working
with them in the classroom, these children are still taught by the kindergarten teacher,
along with every other child in their class. Standard scores presented in this table are
reflective of raw scores, and have been standardised using the PPVT standard score
equivalents, by age (norms booklet for the PPVT IIIA; Dunn & Dunn, 1997).

The lowest raw and standard scores were due to the two children child had
identified developmental delay. Removal of these children resulted in a slightly higher
minimum standard score. The mean of the standard score increased to 97.89 \( (SD 12.85) \)
and the range showed less variance (range from 60 to 124). The two children with
developmental delays did meet the requirements of the PPVT, therefore their inclusion
is valid.

Only children’s standard scores will be used in future analyses and due to the
slight variation in mean scores between standard scores with and without the two
children with developmental delays, these two children will be included in future
correlation analyses, but not in regression analyses as the variation will not represent
normal distribution and thus may be problematic in explaining the predictive effects of
child factors.

**Social connections**

A ‘social connections’ variable, assessing the number of familiar peers children
had when they began school, was computed by summing responses to four
questionnaire items, from the Transition to School Parent Questionnaire: whether or not
the child knew others when they started school (0 – 3), whether the child had close
friends when they started school (0 – 3), whether the child saw friends outside of school
(0 – 3), and whether or not they had a sibling attending the same school (0 - 1) to create
a total score which ranged from 3 to 10 \( (M = 6.17, SD = 1.75) \). A higher score indicated
more social connections for the child.

**Maternal education**

Maternal education was reported by 89 parents at the beginning of the year.
Responses were scored in three categories, 1 = completed less than year 12, 2 =
completed year twelve, and/or TAFE certificate, 3 = completed university qualification.
Scores ranged from 1 to 3 ($M = 1.67$, $SD = .72$) with a higher score indicative of a higher level of maternal education.

**Intercorrelations between child and family factors**

Bivariate correlation analyses were conducted to determine the relationship between child and family factors. Eight main variables were examined: the child’s age, the child’s gender, the child’s total problem behaviours, the child’s competence, the child’s temperament, the child’s PPVT score, the number of social connections they had when they started school, and maternal education.

Table 6.4 presents the intercorrelations between child and family factors which were measured at the beginning of the year.

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<th>2</th>
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<td>2. Gender (girls=0, boys=1)</td>
<td>-.02</td>
<td></td>
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<td>3. Problem Behaviour</td>
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<td>.14</td>
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<td>4. Competence</td>
<td>-.05</td>
<td>-.20†</td>
<td>-.05</td>
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<td>5. Temperament</td>
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<td>.10</td>
<td>.68***</td>
<td>-.33**</td>
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<tr>
<td>6. PPVT std. score</td>
<td>-.18†</td>
<td>-.13</td>
<td>-.20†</td>
<td>-.15</td>
<td>-.40***</td>
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<td>Social Connections</td>
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<td>7. Social Connections (0 to 10)</td>
<td>-.15</td>
<td>.03</td>
<td>-.13</td>
<td>-.17</td>
<td>-.07</td>
<td>.22*</td>
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<tr>
<td>8. Maternal Ed. (1 to 3)</td>
<td>.02</td>
<td>-.12</td>
<td>.06</td>
<td>.14</td>
<td>-.03</td>
<td>.30**</td>
<td>.10</td>
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</tr>
</tbody>
</table>

† Correlation is significant at the .10 level
* Correlation is significant at the .05 level
** Correlation is significant at the .01 level
*** Correlation is significant at the .001 level

When children entered their first year of school, there was a trend for older children to have lower PPVT scores, $r (104) = -.18$, $p < .10$.

At the beginning of the year, boys were marginally less likely to display competent behaviours such as self-regulation, managing their tension and prosocial behaviours.
skills at the beginning of the year, \( r (90) = -.20, p < .10 \), however they did not differ significantly from girls on any other child variable.

Children’s language ability at the beginning and end of the year was linked to their behaviour and temperament. There was a trend for children with higher language ability at Time 1 to be slightly more likely to have less problem behaviours, \( r (90) = -.20, p < .10 \), and display slightly more competence, \( r (90) = .20, p < .10 \). Children with higher language ability at Time 1 were also more likely to have an easier temperament, \( r (89) = -.40, p < .001 \). Children who had higher PPVT scores were more likely to have more social connections, \( r (90) = .22, p < .05 \). The link between children’s language ability and the number of peers and siblings they have could be explained in a number of ways. Children with more peers and siblings may have more opportunities to develop their vocabulary as they are growing up. Alternatively, children with a better vocabulary may be better equipped to make friends prior to school entry.

Children’s temperament was significantly related to the type of behaviour they exhibited at home. Children with a more difficult temperament were more likely to display problem behaviours, \( r (90) = .68, p < .001 \), and less likely to show competent behaviours, \( r (90) = -.33, p < .01 \).

Maternal education was linked with children’s language ability at the beginning of the year, \( r (88) = .30, p < .01 \), indicating that children who had mothers who achieved a higher level of education were more likely to have higher PPVT scores. This finding has been reported for the PPVT in other studies of school adjustment (e.g., Ladd et al., 1999).

6.2 Adjustment and Interpersonal Relationship factors

Adjustment and interpersonal relationship factors have been included together in this section of the chapter as both are included in the proposed model of school adjustment as outcomes which develop over children’s first year of school. Adjustment factors have been assessed using teacher and parent ratings of children’s adjustment at the beginning and end of the year, and children’s self-reports of school adjustment at the end of the year. Interpersonal relationship factors between the teacher and children were reported on by teachers at the beginning and end of the year, and the parent-teacher relationship was reported on by parents at the end of the year.
6.2.1 Teacher Reports

Teachers completed two measures of children’s adjustment to school at Time 1 and Time 2. The Teacher Rating Scale of School Adjustment (TRSSA) (Birch & Ladd, 1997) and the Student Teacher Relationship Scale (STRS) (Pianta, 2001) were used to gather data about children’s early and later school adjustment, and early and later relationships with the teacher. Descriptive statistics for each of the measures are presented below.

Teacher Rating Scale of School Adjustment

Table 6.5 presents the means, standard deviations, minimum and maximum scores, and Cronbach alpha coefficients for the five subscales of the Teacher Rating Scale of School Adjustment (TRSSA) (Birch & Ladd, 1997) at Time 1 and Time 2. The TRSSA is rated on a 3-point format (0 = doesn’t apply, 1 = applies sometimes, 2 = certainly applies), which means that minimum and maximum scores will range from zero to a possible 18 on the self-directedness subscale (9 items), zero to 16 on the cooperative participation subscale (8 items), and zero to 10 on the school liking, school avoidance and comfort with teacher subscales (5 items each). The self-directedness subscale assesses children’s approach to learning and whether or not children are confident in the classroom. Cooperative participation assesses the degree to which children cooperate well with others in the classroom, and listen to teachers’ instructions. School liking assesses teachers’ perceptions of whether or not children have fun at school and enjoy participating in classroom activities. School avoidance assesses whether children ask to go home or leave the classroom during the school day. Comfort with teacher assesses whether children are comfortable approaching the teacher and initiating conversations with the teacher.

Internal consistency was moderate to high for subscales at Time 1 and Time 2. For Cooperative participation, Cronbach alphas were .89 at Time 1 and .95 at Time 2. Self-directedness was .93 at Time 1 and .94 at Time 2. School liking was .84 at Time 1 and .87 at Time 2. School avoidance was .54 at Time 1 and .67 at Time 2. Comfort with teacher was .68 at Time 1 and .78 at Time 2.

Overall, Cronbach alpha coefficients for the five subscales at Time 1 and Time 2 provided good evidence of internal reliability. Alpha coefficients were consistent with those described by Birch and Ladd (1997), and were higher than those reported by Ladd, Birch and Buhs (1999) for self-directedness and cooperative participation.
Table 6.5: TRSSA descriptive statistics, Time 1 and Time 2

<table>
<thead>
<tr>
<th>Subscale</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>Min.</th>
<th>Max.</th>
<th>α</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Self-Directedness</td>
<td>103</td>
<td>12.97</td>
<td>4.47</td>
<td>1.00</td>
<td>18.00</td>
<td>.93</td>
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<tr>
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<td>1.00</td>
<td>16.00</td>
<td>.89</td>
</tr>
<tr>
<td>School Liking</td>
<td>103</td>
<td>7.56</td>
<td>0.89</td>
<td>5.00</td>
<td>10.00</td>
<td>.84</td>
</tr>
<tr>
<td>School Avoidance</td>
<td>103</td>
<td>1.15</td>
<td>1.39</td>
<td>0.00</td>
<td>6.00</td>
<td>.54</td>
</tr>
<tr>
<td>Comfort with Teacher</td>
<td>103</td>
<td>5.93</td>
<td>1.57</td>
<td>2.00</td>
<td>10.00</td>
<td>.68</td>
</tr>
<tr>
<td>Time 2</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Self-Directedness</td>
<td>102</td>
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<td>4.86</td>
<td>1.00</td>
<td>18.00</td>
<td>.95</td>
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<td>3.46</td>
<td>1.00</td>
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<td>.94</td>
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<td>School Liking</td>
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<td>1.07</td>
<td>4.00</td>
<td>8.00</td>
<td>.87</td>
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<td>School Avoidance</td>
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<td>1.85</td>
<td>0.00</td>
<td>8.00</td>
<td>.73</td>
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<tr>
<td>Comfort with Teacher</td>
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<td>5.99</td>
<td>1.74</td>
<td>1.00</td>
<td>9.00</td>
<td>.78</td>
</tr>
</tbody>
</table>

Note: N = number of children at either Time 1 or Time 2.

Subscales (these authors reported only these two subscales). With the exception of school avoidance at Time 1, all alphas achieved an acceptable level. The low alpha on school avoidance may be due to items being difficult for teachers to assess at the beginning of the year when they have little knowledge about each child. Also, children may not exhibit as many examples of school avoidant behaviour at the beginning of the school year. For example, parents may be less likely to let their children stay home for sick days early in the school year. Thus discrepancies in responses to items may have occurred. As school avoidance at Time 1 was not a strong subscale it will not be used in future analyses.

Subscale scores were computed as per the directions given by Birch and Ladd (1997). It can be seen from the mean scores presented in Table 6.5 that self-directedness was rated by teachers as reasonably high at both Time 1 and Time 2 ($M = 12.97$, $SD = 4.47$ and $M = 12.81$, $SD = 4.86$, respectively). Teachers also rated cooperative participation as relatively high at both Time 1 and Time 2 ($M = 13.70$, $SD = 3.12$ and $M = 13.92$, $SD = 3.46$, respectively). School liking was high at both Time 1 ($M = 7.56$) and Time 2 ($M = 7.38$). Children’s scores on this subscale showed very little deviation from the mean at either Time 1 ($SD = 0.89$) or Time 2 ($SD = 1.07$). Teacher ratings of comfort in the teacher-child relationship was quite varied and mean scores indicated an
almost equal number of children who scored high and low on this subscale ($M = 5.93$, $SD = 1.57$ and $M = 5.99$, $SD = 1.74$, respectively).

Changes over time in teacher ratings on the Teacher Rating Scale of School Adjustment subscales were analysed using paired-samples t-tests. There was a statistically significant increase in school avoidance scores from Time 1 ($M = .83$, $SD = 1.22$) to Time 2 ($M = 1.28$, $SD = 1.61$), $t (99) = -2.72$, $p < .01$. This indicated that, on average, children showed slightly more school avoidant behaviours at the end of kindergarten, compared to the beginning of kindergarten. However, there was no significant change in any other subscale over time, indicating, for the most part, that teachers’ views of children’s adjustment to school at the beginning of the year remain relatively constant throughout the kindergarten year.

**Student-Teacher Relationship Scale**

The Student-Teacher Relationship Scale (Pianta, 2001) is a 28-item measure requiring teachers to rate the quality of their relationship with an individual child, on three dimensions: conflict (12 items), closeness (11 items) and dependency (5 items). Relationships high on closeness and low on conflict and dependency are more positive. Table 6.6 presents the descriptive statistics for the STRS at Time 1 and Time 2, separately.

| Table 6.6: STRS descriptive statistics for Time 1 and Time 2 |
|-------------|------------|----------|----------|----------|-----|
|             | $N$        | $M$      | $SD$     | $Min.$   | $Max.$ |
| **Time 1**  |            |          |          |          |      |
| Conflict    | 103        | 18.75    | 8.16     | 12.00    | 44.00 |
| Closeness   | 103        | 43.50    | 6.31     | 29.00    | 55.00 |
| Dependency  | 103        | 9.64     | 2.85     | 5.00     | 18.00 |
| Total STRS  | 103        | 117.11   | 12.65    | 77.00    | 140.00|
| **Time 2**  |            |          |          |          |      |
| Conflict    | 102        | 18.52    | 9.16     | 12.00    | 57.00 |
| Closeness   | 102        | 44.67    | 6.36     | 25.00    | 54.00 |
| Dependency  | 102        | 9.75     | 3.27     | 5.00     | 19.00 |
| Total STRS  | 102        | 118.39   | 13.99    | 75.00    | 139.00|

Note: $N$ = number of children at Time 1 or Time 2.

Cronbach alpha coefficients are presented for the three subscale scores at each data collection time. Internal consistency for the three subscales at Time 1 and Time 2
was high for conflict (α = .90 at Time 1 and α = .94 at Time 2) and closeness (α = .85 at Time 1 and α = .77 at Time 2) and reasonable for dependency (α = .58 at Time 1 and α = .64 at Time 2).

Cronbach alpha coefficients were comparable to Pianta’s (2001) initial subscale alphas. Pianta (2001) reports high alphas for conflict (α = .92) and closeness (α = .86) and below adequate for dependency (α = .64). Dependency at Time 1 at Time 2 in the current study also had an alpha lower than the acceptable level of .65. This could be due to this scale only containing 5 items. This subscale may need to be used cautiously with future analyses. Total STRS scores are computed by using the equation: (72 - conflict raw score) + closeness raw score + (30 – dependency raw score) = STRS total raw score.

Changes over time in teacher ratings on the Student Teacher Relationship Scale subscales were analysed using paired-samples t-tests. There was a statistically significant increase in closeness from Time 1 (M = 39.80, SD = 5.84) to Time 2 (M = 41.11, SD = 5.57), t (99) = -2.61, p < .01. This indicated that, on average, children were rated as having slightly closer relationships with their teachers at the end of the kindergarten year, compared to the beginning of the year. No significant change was evident for conflict or dependency, indicating teachers’ views of their relationship with children, especially when the relationship was not reported as close, remained fairly constant over the first year of school.

**Intercorrelations between teacher-rated measures of adjustment**

Bivariate correlation analyses were undertaken to examine relationships between teacher-rated adjustment variables, including teacher-child relationship variables at Time 1 and Time 2, separately. Results are presented in Tables 6.7 and 6.8.

Consistent with the literature on teacher-rated school adjustment (e.g., Birch & Ladd, 1997), moderate correlations were evident between conflict and dependency in the teacher-child relationship and teachers’ ratings of children’s school avoidance at Time 1, conflict by school avoidance, \( r (102) = -.47, p < .001 \); dependency by school avoidance, \( r (102) = -.34, p < .001 \), and moderate correlations between these subscales were evident at Time 2, conflict by school avoidance, \( r (103) = -.57, p < .001 \); dependency by school avoidance, \( r (103) = -.50, p < .001 \). In addition to this finding, significant correlations existed between most other variables. At Time 1 and Time 2, children who were rated by their teachers as liking school more, were also rated as
being more cooperative in their participation in class, more self-directed in class, as having higher levels of comfort and closeness in their relationship with the teacher,

Table 6.7: Intercorrelations between teacher-rated variables at Time 1

<table>
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<tr>
<th>Time 1</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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<th>6</th>
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<td></td>
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</tr>
<tr>
<td>1. Cooperative</td>
<td>-</td>
<td></td>
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<tr>
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<tr>
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<td>3. School</td>
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<td>-.27**</td>
<td>-</td>
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<td>Avoidance</td>
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<tr>
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<td>.33***</td>
<td>.32***</td>
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</tr>
<tr>
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<td>-.45***</td>
<td>-.47***</td>
<td>.38***</td>
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<td>.58***</td>
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<td>-.34***</td>
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N = 103
* Correlation is significant at the .05 level
** Correlation is significant at the .01 level
*** Correlation is significant at the .001 level

Table 6.8: Intercorrelations between teacher-rated variables at Time 2

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<th>Time 2</th>
<th>1</th>
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<td></td>
<td></td>
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<tr>
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</tr>
<tr>
<td>2. Self-</td>
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<td>-</td>
<td></td>
<td></td>
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<tr>
<td>directedness</td>
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<td>-.44***</td>
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<tr>
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<td>.43***</td>
<td>.38***</td>
<td>.06</td>
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<td>.36***</td>
<td>-.22*</td>
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<td>-.50***</td>
<td>.41***</td>
<td>-.23*</td>
<td>.38***</td>
<td>-.15</td>
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</tbody>
</table>

N = 102
* Correlation is significant at the .05 level
** Correlation is significant at the .01 level
*** Correlation is significant at the .001 level
and as having lower levels of conflict and dependency in their relationship with the teacher. At Time 1 and Time 2, children who were rated by their teachers as being more school avoidant were also rated as being less cooperative in their participation in class, less self-directed in class, and as having higher levels of conflict and dependency in their relationship with the teacher.

It is evident from these tables that the pattern of correlation coefficients is similar at Time 1 and Time 2. Stronger effects can be seen at the end of the year between conflict and cooperative participation, Time 1 $r(103) = -.68$, $p < .001$ and Time 2 $r(102) = -.85$, $p < .001$, indicating that at the end of the year, children who were rated as having high levels of conflict in their relationship with teachers were also rated as being less cooperative in their participation with others. In addition to this, stronger effects can be seen between conflict and comfort with the teacher at the end of the year compared to the beginning of the year, Time 1 $r(103) = -.15$, $p > .10$ and Time 2 $r(102) = -.22$, $p < .05$. This indicates that children who have a more conflictual relationship with their teacher at the end of the year were more likely to have less comfort in their relationship with the teacher than they did at the beginning of the year, Time 1 $r(103) = -.15$, $p < .05$ and Time 2 $r(102) = -.22$, $p < .05$. Similarly, children who were rated as having more dependency in the relationship with their teacher were more likely to have less comfort in their relationship at the end of the year compared to the beginning of the year, Time 1 $r(103) = .08$, $p > .10$ and Time 2 $r(102) = -.23$, $p < .05$. Even though there were some changes in the quality of the teacher-child relationship from the beginning to the end of the year, for the most part, the relationship children developed with their teacher at the beginning of kindergarten, as rated by teachers, remained reasonably constant.

6.2.2 Parent-Rated Adjustment

**Adjustment to School Parent Questionnaire**

At Time 1, parents used a three point rating scale ($1 = \text{not at all}, 2 = \text{sometimes}, 3 = \text{often/usually}$) to rate how well they thought their child was adjusting to school at Time 1. At Time 2, parents reported on similar constructs using a five point rating scale ($1 = \text{never}, 2 = \text{rarely}, 3 = \text{sometimes}, 4 = \text{usually}, 5 = \text{always}$). Time 2 scores were adjusted to a 3-point scale by recoding the original codes in the following manner ($1 = 1$, $2 = 1.5$, $3 = 2$, $4 = 2.5$, $5 = 3$). Therefore, at Time 1 and Time 2 adjustment scores...
Table 6.9: Descriptive statistics for parent-rated adjustment to school at Time 1 and Time 2

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>Min.</th>
<th>Max.</th>
<th>α</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Time 1 Adjustment</td>
<td>92</td>
<td>10.76</td>
<td>1.35</td>
<td>7.00</td>
<td>12.00</td>
<td>.54</td>
</tr>
<tr>
<td>Total Time 2 Adjustment</td>
<td>79</td>
<td>10.36</td>
<td>1.14</td>
<td>7.00</td>
<td>12.00</td>
<td>.69</td>
</tr>
</tbody>
</table>

Note: N = number of parents at Time 1 or Time 2.

have a possible range of 3 to 12. Internal reliability analysis conducted on the two total adjustment scores was low at Time 1 (α = .54), but acceptable at Time 2 (α = .69).

The means, standard deviations, minimum and maximum scores, and alpha coefficients for parent-rated child adjustment to school at Time 1 and Time 2, are presented in Table 6.9. The number of parents who completed questionnaires at Time 1 was 92, and the number of parents who completed questionnaires at Time 2 was 79. At Time 1, overall statistics indicate children, as rated by their parents, were adjusting reasonably well to school. The scores ranged between 7.00 and 12.00 (M = 10.76, SD = 1.35) indicating that more often than not, children were looking forward to going to school. However, there are a few children who are substantially lower than the average scores, indicating some children may not look forward to going to school. At Time 2, parent-rated adjustment is similar, with the range of scores again lying between 7.00 and 12.00, and the mean being 10.36 (SD = 1.14).

Changes over time in parents’ ratings of adjustment were analysed using a paired-samples t-test. This was conducted on the smaller sample of parents who had data at both Time 1 and Time 2. There was a statistically significant decrease in the mean scores for parent-rated child adjustment from Time 1 (M = 10.84, SD = 1.34) to Time 2 (M = 10.30, SD = 1.15), t (79) = 3.71, p < .001. This indicated that parents rated their children as better adjusted to school at the beginning of the year compared to the end of the year.

**Parent-teacher relationship**

Parents were asked two questions in the Adjustment to School Parent Questionnaire regarding their relationship with their child’s teacher at the end of the kindergarten year: Do you feel comfortable approaching your child’s teacher? and Do you feel you have a good relationship with your child’s teacher? Initially, responses to these two questions were examined separately. Both questions were rated on a 1 to 5 scale (1 = never, 5 = always). Parents’ responses to the first question ranged from 1 to 5
Items for these two questions were combined to create an overall measure of the quality of the parent-teacher relationship. A one-tailed bivariate correlation indicated a statistically significant correlation between these two items at the .05 level, \( r(79) = .22, p = .03 \). Scores for this total parent-teacher relationship variable ranged from 6 to 10 \( (M = 9.35, SD = 1.00) \). The mean score indicated that most parents felt they had a good relationship with their child’s teacher at the end of the year; however a small number of parents only felt comfortable approaching their child’s teacher sometimes and only felt good about their relationship with the teacher sometimes.

**Intercorrelations between parent-ratings of adjustment**

Bivariate correlation analyses were conducted on two parent-rated variables of adjustment measured at the beginning and end of the year, and one variable representing parents’ ratings of the parent-teacher relationship. Intercorrelations between these variables are presented in Table 6.10, and significant correlations are discussed below.

Parent-rated child adjustment at Time 1 was moderately correlated with parent-rated adjustment scores at Time 2, \( r(74) = .52, p < .001 \), showing consistency over time for both negative and positive ratings. This is an indicator that children who adjust more positively to school and like school at the beginning of the year, continue to like school and show signs of positive adjustment at the end of the year.

Whether or not parents had a positive relationship with the teacher at the end of the year was not related to parents’ ratings of their child’s adjustment at the beginning of the year. However there was a weak, non-significant trend for a more positive parent-teacher relationship to be associated with parents’ ratings of their child’s adjustment at the end of the year, \( r(74) = .17, p = .14 \). This is an interesting finding and a larger sample would be needed to test this association more fully.

**Table 6.10: Intercorrelations between parent ratings of adjustment and the parent-teacher relationship**

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Total adjustment Time 1</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Total adjustment Time 2</td>
<td>.52***</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>3. Parent-teacher relationship (T2)</td>
<td>.03</td>
<td>.17</td>
<td>-</td>
</tr>
</tbody>
</table>

*** Correlation is significant at the .001 level
6.2.3 Child-rated Adjustment

Feelings about school

Children’s feelings about school at the end of the year were used as a measure of their self-reported adjustment. Table 6.11 presents the means, standard deviations, minimum and maximum scores, and alpha coefficients for the School Feelings Questionnaire (SFQ) at Time 2. For school liking, the mean score was quite high ($M = 15.63, SD = 2.68$), which showed that although children’s responses fell into the whole possible range of scores for this subscale (range = 6.00 to 18.00), more children reported liking school than not liking school. Children’s scores on the school avoidance subscale also used the whole possible range of scores (range = 5.00 to 15.00), and the average or mean score was 10.39 ($SD = 3.06$).

Bivariate correlation analyses were conducted to test the relationship between school liking and school avoidance. Children’s self-reported school liking negatively correlated with their self-reported school avoidance, $r (96) = -.45, p < .001$, indicating that children who liked school, reported low levels of school avoidance.

Table 6.11: Descriptive Statistics for the School Feelings Questionnaire at Time 2

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>Min.</th>
<th>Max.</th>
<th>α</th>
</tr>
</thead>
<tbody>
<tr>
<td>School Liking (7 items)</td>
<td>96</td>
<td>15.63</td>
<td>2.68</td>
<td>6.00</td>
<td>18.00</td>
<td>.77</td>
</tr>
<tr>
<td>School Avoidance (5 items)</td>
<td>96</td>
<td>10.39</td>
<td>3.06</td>
<td>5.00</td>
<td>15.00</td>
<td>.77</td>
</tr>
</tbody>
</table>

6.2.4 Child Academic Adjustment

Who Am I?

The Who Am I? was administered to children at Time 2, to assess literacy and numeracy skills at the end of the kindergarten year. Three subscales were generated: copying (5 items) with a possible range of 4 to 20, symbols (5 items) with a possible range of 4 to 20, and drawing (1 item) with a possible range of 1 to 4. A total score (11 items) is computed by summing the three subscales.

Table 6.12 presents the means, standard deviations, minimum and maximum scores, and Cronbach alpha coefficients for the Who am I? at Time 2.
Table 6.12: Descriptive Statistics for the Who am I? at Time 2

<table>
<thead>
<tr>
<th>Subscale</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>Min.</th>
<th>Max.</th>
<th>α</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copying (5 items)</td>
<td>99</td>
<td>16.56</td>
<td>2.30</td>
<td>10.00</td>
<td>20.00</td>
<td>.75</td>
</tr>
<tr>
<td>Symbols (5 items)</td>
<td>99</td>
<td>14.74</td>
<td>3.52</td>
<td>4.00</td>
<td>20.00</td>
<td>.82</td>
</tr>
<tr>
<td>Drawing (1 item)</td>
<td>99</td>
<td>2.86</td>
<td>0.76</td>
<td>1.00</td>
<td>4.00</td>
<td>-</td>
</tr>
<tr>
<td>Total Score (11 items)</td>
<td>99</td>
<td>34.15</td>
<td>5.62</td>
<td>18.00</td>
<td>43.00</td>
<td>.86</td>
</tr>
</tbody>
</table>

Apart from the drawing subscale which contained only one item, all subscales had adequate internal reliability. For the copying subscale \((\alpha = .75)\), scores ranged from 10.00 to 20.00 \((M = 16.56, SD = 2.30)\). The symbols subscale \((\alpha = .82)\) ranged from 4.00 to 20.00 \((M = 14.74, SD = 3.52)\). For the drawing item, children were asked to draw a picture of themselves at school. Drawings were used as an additional indicator of children’s intellectual development (de Lemos & Doig, 1999). A higher score indicated a more realistic drawing of the child with details such as clothes, facial features, hair and correct proportion. Children’s scores on this subscale at the end of the year ranged from 1 to 4 \((M = 2.86, SD = 0.76)\) showing the whole range of responses was used. In fact, based on a more detailed descriptive analysis not presented in the table, most children \((n = 44)\) had a score of 3, which indicates a drawing of the child with some features, the head, body and limbs in the correct position, and the body and limbs filled out (not stick). Thirty-three (33) children had a score of 2 for their drawing, 21 children had a score of 4, and only one child had a score of one. Overall, children’s total scores were reasonably high \((\alpha = .86; M = 34.15, SD = 5.62)\) and ranged between 18.00 and 43.00 (of a possible range from 11 to 44). Mean scores for the current study were in line with the average scores reported for kindergarten children by de Lemos and Doig (1999).

6.2.5 Intercorrelations between Measures of Adjustment and Interpersonal Relationships

Bivariate correlation analyses were used to test the relationships between adjustment factors and interpersonal relationship factors as reported by teachers, parents and children. At the beginning of the year, teacher-rated adjustment outcomes included four subscales from the TRSSA; cooperative participation, self-directedness, school liking and school avoidance. Parent-rated adjustment included one adjustment outcome.
Teacher-rated interpersonal relationship outcomes included four subscales, one from the TRSSA; comfort with teacher; and three from the STRS; conflict, closeness and dependency. Results from these analyses are presented in Table 6.13.

At the end of the year, the same teacher and parent-rated adjustment and interpersonal relationship subscales were included in analyses. In addition to these variables, parents’ ratings of the parent-teacher relationship were included, as well as children’s ratings of school liking and avoidance. Results from these analyses are presented in Table 6.14.

**Early Child Adjustment**

At the beginning of the year, children who were rated by teachers as high on cooperative participation were also likely to be rated by parents as adjusting well to school, \( r (89) = .25, p < .05 \).

Additionally, teachers’ ratings of children’s school liking were significantly correlated with parents’ ratings of their children’s adjustment, \( r (89) = .42, p < .001 \). This indicates that teachers and parents views of children’s adjustment are in accordance, particularly school liking. Both parents and teachers are in a good position to see whether or not children like school, however parents have the opportunity to see different behaviours from the child in the home environment which can indicate whether or not they like to go to school and how they talk about school when they are at home.

**Early Interpersonal Relationships**

Teachers’ ratings of the type of relationship they had with children were examined using four variables. More comfort in the teacher-child relationship, as indicated by the child being comfortable to approach the teacher and being interested in the teacher, was significantly related to higher ratings of cooperative participation, \( r (103) = .39, p < .001 \), higher ratings of self-directedness, \( r (103) = .33, p < .001 \), and higher ratings of school liking, \( r (103) = .32, p < .001 \). Comfort with teacher was also significantly related to parent-rated adjustment, \( r (89) = .38, p < .001 \).

Conflict in the teacher-child relationship, as indicated by the teachers’ reports of the child being angry or resistant toward the teacher and draining the teachers’ energy, was negatively associated with cooperative participation, \( r (103) = -.68, p < .001 \), self-directedness, \( r (103) = -.45, p < .001 \), and school liking, \( r (103) = -.47, p < \)
Table 6.13: Intercorrelations between Early Child Adjustment and Interpersonal factors at Time 1

<table>
<thead>
<tr>
<th>Time 1</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Teacher-rated Adjustment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>1. Cooperative Particip.</td>
<td>.69***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Self-directedness</td>
<td>.54***</td>
<td>.37***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. School Liking</td>
<td>.25**</td>
<td>.23**</td>
<td>.27**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. School Avoidance</td>
<td>.39***</td>
<td>.33***</td>
<td>.32***</td>
<td>.09</td>
<td></td>
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<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>5. Comfort w. Teacher</td>
<td>.39***</td>
<td>.33***</td>
<td>.32***</td>
<td>.09</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Conflict</td>
<td>.68***</td>
<td>.45***</td>
<td>.47***</td>
<td>.38***</td>
<td>.15</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Closeness</td>
<td>.38***</td>
<td>.32***</td>
<td>.36***</td>
<td>.10</td>
<td>.58***</td>
<td>.22*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Dependency</td>
<td>.30**</td>
<td>.48***</td>
<td>.34***</td>
<td>.38***</td>
<td>.08</td>
<td>.44***</td>
<td>.08</td>
<td></td>
</tr>
<tr>
<td><strong>Parent-rated Adjustment</strong></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Child Adjustment</td>
<td>.25*</td>
<td>.14</td>
<td>.42***</td>
<td>.08</td>
<td>.38***</td>
<td>.32**</td>
<td>.25*</td>
<td>.19†</td>
</tr>
</tbody>
</table>

† Correlation is significant at the .10 level
* Correlation is significant at the .05 level
** Correlation is significant at the .01 level
*** Correlation is significant at the .001 level
### Table 6.14: Intercorrelations between Later Child Adjustment and Interpersonal factors at Time 2

<table>
<thead>
<tr>
<th>Time 2</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
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</thead>
<tbody>
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<td><strong>Teacher-rated Adjustment</strong></td>
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<td></td>
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<td></td>
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</tr>
<tr>
<td>1. Cooperative Participation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.66***</td>
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<td></td>
<td></td>
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<tr>
<td>2. Self-directedness</td>
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<td>.88***</td>
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<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>3. School Liking</td>
<td>.58***</td>
<td>.58***</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>4. School Avoidance</td>
<td>-.30**</td>
<td>-.36***</td>
<td>-.52***</td>
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<td><strong>Teacher-rated Interpersonal Rel.</strong></td>
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</tr>
<tr>
<td>5. Comfort w. Teacher</td>
<td>.18†</td>
<td>.42***</td>
<td>.36***</td>
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<td>6. Conflict</td>
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<td>-.54***</td>
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<td>-.18†</td>
<td></td>
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<td>.26**</td>
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<td>-.23*</td>
<td>-.37***</td>
<td>-.37***</td>
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<td>-.22*</td>
<td>.25**</td>
<td>-.06</td>
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<td><strong>Child-rated Adjustment</strong></td>
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<td>10. SFQ School Avoidance</td>
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<td>-.31**</td>
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<td>-.00</td>
<td>-.22*</td>
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<td>-.17†</td>
<td>.00</td>
<td>-.45***</td>
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<td><strong>Child Academic Adjustment</strong></td>
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<td></td>
</tr>
<tr>
<td>11. Who Am I?</td>
<td>.49***</td>
<td>.66***</td>
<td>.33***</td>
<td>-.24*</td>
<td>.27**</td>
<td>-.34***</td>
<td>.16</td>
<td>-.34***</td>
<td>.23*</td>
<td>-.34***</td>
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<td><strong>Parent-rated Adjustment</strong></td>
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<tr>
<td>12. Child Adjustment</td>
<td>.28*</td>
<td>.25*</td>
<td>.35**</td>
<td>-.40***</td>
<td>.14</td>
<td>-.41***</td>
<td>.03</td>
<td>-.24*</td>
<td>.19</td>
<td>.03</td>
<td>.29**</td>
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<td><strong>Parent-rated Interpersonal Rel.</strong></td>
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<td></td>
</tr>
<tr>
<td>13. Parent-teacher relationship</td>
<td>-.20†</td>
<td>.12</td>
<td>.15</td>
<td>-.05</td>
<td>-.06</td>
<td>-.22†</td>
<td>-.07</td>
<td>.18</td>
<td>.34**</td>
<td>-.22†</td>
<td>.08</td>
<td>.17</td>
</tr>
</tbody>
</table>

† Correlation is significant at the .10 level  
* Correlation is significant at the .05 level  
** Correlation is significant at the .01 level  
*** Correlation is significant at the .001 level
.001, and positively associated with school avoidance, $r(103) = .38, p < .001$. Conflict was negatively correlated with parent ratings of child adjustment, $r(89) = -.32, p < .01$.

Closeness in the teacher-child relationship, as indicated by the child valuing their relationship with their teacher and trying to please the teacher, was positively associated with teacher ratings of cooperative participation, $r(103) = .38, p < .001$, self-directedness, $r(103) = .32, p < .01$, and school liking, $r(103) = .36, p < .01$. Closeness was also related to parent ratings of child adjustment, $r(89) = .25, p < .05$.

Dependency in the teacher-child relationship, as indicated by the child reacting negatively from separation from their teacher and asking for the teachers’ help when it is not needed, was negatively associated with cooperative participation, $r(103) = -.30, p < .05$, self-directedness, $r(103) = -.48, p < .001$, and school liking, $r(103) = -.34, p < .001$, and positively associated with school avoidance, $r(103) = .40, p < .001$. There was also a trend for dependency to be related to parent-rated child adjustment at the beginning of the year, $r(89) = -.19, p < .10$.

In sum, teachers’ ratings of the teacher-child relationship are directly related to children’s school adjustment, as reported by teachers and parents, at the beginning of the year. This provides some validity for the future use of the parent-rated adjustment score.

**Later Child Adjustment**

At the end of the year, children’s who were rated by their teachers as high on cooperative participation had significantly higher scores on the Who Am I?, $r(96) = .49, p < .001$, and were also more likely to be rated by their parents as being well-adjusted to school, $r(79) = .28, p < .05$. There was a trend for teachers’ ratings of cooperative participation to be associated with parents’ ratings of a more positive relationship with their child’s teacher, $r(79) = .20, p < .10$. Cooperative participation did not correlate with children’s self-reported school liking or avoidance.

Teachers’ ratings of self-directedness were similarly related to children’s academic adjustment to school, as rated by the Who Am I?, $r(96) = .66, p < .001$. Self-directedness was also associated with parent-rated child adjustment, $r(79) = .25, p < .05$, and negatively related to children’s self-reported school avoidance, $r(96) = -.31, p < .01$.

Teachers’ ratings of children’s school liking were also associated with children’s academic adjustment, $r(96) = .33, p < .001$. Teacher-rated school liking was
significantly related to parent-rated child adjustment, \( r (79) = .35, p < .01 \), and was also linked with children’s self-reported school liking, \( r (96) = .28, p < .01 \), and school avoidance, \( r (96) = -.24, p < .05 \).

Teachers’ ratings of school avoidance were negatively correlated children’s academic adjustment, \( r (96) = -.24, p < .05 \), and also with parents’ ratings of child adjustment, \( r (79) = -.40, p < .001 \). Teacher-rated school avoidance did not relate to children’s self-reported school liking and avoidance at the end of the year.

**Later Interpersonal Relationships**

Teachers’ ratings of the type of relationship they have with children were compared with teacher-rated adjustment outcomes, child-rated adjustment outcomes, child academic adjustment, parent-rated child adjustment and parents’ ratings of the parent-teacher relationship.

At the end of the year, more comfort in the teacher-child relationship was slightly related to higher ratings of cooperative participation, \( r (101) = .18, p < .10 \), and significantly related to self-directedness, \( r (101) = .42, p < .001 \), and school liking, \( r (101) = .36, p < .001 \). Higher ratings of comfort were also related to slightly more school liking, \( r (96) = .18, p < .10 \), and less school avoidance, \( r (96) = -.22, p < .05 \), reported by children. In addition to these findings, teacher-rated comfort was linked to children’s academic adjustment, measured by the Who Am I? at the end of the year, \( r (96) = .27, p < .01 \).

Conflict in the teacher-child relationship was highly correlated with less cooperative participation, \( r (101) = -.85, p < .001 \), and moderately correlated with less self-directedness, \( r (101) = -.54, p < .001 \), and less school liking, \( r (101) = -.63, p < .001 \). Conflict was also associated with higher ratings of school avoidance, \( r (101) = .31, p < .001 \), and with lower scores on the Who Am I? indicating less academic adjustment to school, \( r (96) = -.34, p < .001 \). Additionally, children who were rated as having more conflict in the teacher-child relationship were rated by parents as being less well-adjusted to school at the end of the year, \( r (79) = -.41, p < .001 \). There was also a trend for conflict in the teacher-child relationship to be associated with negative parent-teacher relationships, as rated by parents, \( r (74) = -.22, p < .10 \).

Closeness in the teacher-child relationship was positively correlated with cooperative participation, \( r (101) = .22, p < .05 \), self-directedness, \( r (101) = .26, p < .01 \), and school liking, \( r (101) = .24, p < .05 \). Children whose teachers’ rated them higher on
closeness at the end of the year were slightly more likely to report less school avoidance on the SFQ, $r (79) = -.17, p < .10$.

Dependency in the teacher-child relationship was correlated with less cooperative participation, $r (101) = -.23, p < .05$, less self-directedness, $r (101) = -.37, p < .001$, less school liking, $r (101) = -.37, p < .001$, and more school avoidance, $r (101) = .41, p < .001$. Teachers’ ratings of dependency were also related to children’s scores on the Who Am I?, $r (96) = -.34, p < .001$, showing that higher ratings of dependency were associated with less academic adjustment at the end of the year. Dependency was also linked to parents’ ratings of their child’s adjustment at the end of the year, $r (79) = -.24, p < .05$, indicating that children who were more dependent on the teacher were less likely to have adjusted well to the first year of school.

In sum, teachers’ and parents’ ratings of children’s school adjustment and interpersonal relationships have been shown to be interrelated at the beginning and end of the year. In addition, children’s self-reported school liking and avoidance, measured at the end of the year, are related to teachers’ and parents’ ratings of adjustment.

### 6.3 Classroom processes

Two measures were used to collect information about the nature and quality of the classroom: the Kindergarten Teacher Classroom Inventory, and the Classroom Observation Instrument - Kindergarten. Both of these measures were administered at the mid-point of the year, in Term 3. Descriptive statistics for teacher-reported goals and classroom quality will be presented below and are used to represent the quality of the classroom environment.

**Teacher-Reported Goals**

Table 6.15 presents the means, standard deviations, minimum and maximum scores, and alpha coefficients for the three subscale scores for teacher-reported goals. Statistics presented in the table are based on the computed means of the total subscale scores. Due to the social development subscale containing only two items, no alpha is reported. A bivariate correlation analysis conducted on the two items in this subscale showed no significant relationship between them. This non-significant correlation may be attributed to the low range in minimum and maximum scores for this subscale, and also the relatively small number of teachers who completed the measure.
The basic skills subscale includes four items: work habits, factual knowledge, basic skills and motor skills. It is evident from Table 6.16 that teachers do not consider these types of skills to be the most important for children in kindergarten ($M = 3.32$, $SD = 0.81$, range = 1.75 to 4.50). Likewise, aspects of higher-order thinking (critical thinking, creativity, and independence and initiative) were also not reported as the most important skills to have ($M = 3.21$, $SD = 0.85$, range = 1.86 to 4.00). On the other hand, aspects of social development (social skills and cooperation) were reported as more important skills for kindergarten children to possess ($M = 4.47$, $SD = 0.52$, range = 3.50 to 5.00).

Table 6.15: Descriptive statistics for teacher-reported goals

<table>
<thead>
<tr>
<th>Subscale</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>Min.</th>
<th>Max.</th>
<th>$\alpha$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Skills (4 items)</td>
<td>15</td>
<td>3.32</td>
<td>0.81</td>
<td>1.75</td>
<td>4.50</td>
<td>.74</td>
</tr>
<tr>
<td>Higher-Order Thinking (4 items)</td>
<td>15</td>
<td>3.21</td>
<td>0.85</td>
<td>1.86</td>
<td>4.00</td>
<td>.72</td>
</tr>
<tr>
<td>Social Development (2 items)</td>
<td>15</td>
<td>4.47</td>
<td>0.52</td>
<td>3.50</td>
<td>5.00</td>
<td>-</td>
</tr>
</tbody>
</table>

Classroom Observation Instrument – Kindergarten (COI-K)

The Classroom Observation Instrument – Kindergarten (COI-K) is a ten-item measure used to assess the nature and quality of the teaching and learning environment. Table 6.16 Presents the means, standard deviations, minimum and maximum scores, and Cronbach alpha coefficients for the three subscale scores in the COI-K. Scores for individual items were summed to create three subscales: management, social climate and instruction.

Table 6.16: Descriptive statistics for the COI-K

<table>
<thead>
<tr>
<th>Subscale</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>Min.</th>
<th>Max.</th>
<th>$\alpha$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management (3 items)</td>
<td>16</td>
<td>4.06</td>
<td>0.62</td>
<td>2.67</td>
<td>5.00</td>
<td>.71</td>
</tr>
<tr>
<td>Social Climate (5 items)</td>
<td>16</td>
<td>4.43</td>
<td>0.65</td>
<td>2.80</td>
<td>5.00</td>
<td>.78</td>
</tr>
<tr>
<td>Instruction (2 items)</td>
<td>16</td>
<td>3.84</td>
<td>0.70</td>
<td>2.50</td>
<td>5.00</td>
<td>-</td>
</tr>
</tbody>
</table>

The management subscale includes the discipline strategies used by the teacher, the degree of student self-regulation and the amount of student direction in the classroom. The social climate subscale assesses teacher warmth, children’s communication skills, the amount of social support given by the teacher, student engagement and the amount of social support encouraged by the teacher and given by
the children in the classroom. The instruction subscale includes the amount of explicit quality criteria given to the children by the teacher and whether or not the teacher has high expectations for children's learning. Statistics presented in the table are based on the computed means of the total subscale scores. For the instruction subscale, which only contains two items, a bivariate Pearson correlation was conducted to test the relationship between the two variables. They were not significantly correlated, $r(16) = .17, p = .52$, and should be used cautiously in future analyses involving classroom factors. The management and social climate subscales had good internal reliability ($\alpha = .71$ and $.78$ respectively).

Scores on the management subscale ranged from 2.67 to 5.00 ($M = 4.06, SD = 0.62$), which indicates adequate variability for using the subscale as a classroom factor in future analyses. Likewise, social climate ($M = 4.43, SD = 0.65$, range = 2.80 to 5.00) and instruction ($M = 3.84, SD = 0.70$, range = 2.50 to 5.00) also had adequate variation in scores.

**Correspondence Across Classroom and Teacher Measures**

Bivariate correlation analyses were conducted between teacher goals and classroom observations. Intercorrelations are presented in Table 6.17. Due to the small number of teachers on whom data was analysed, significant correlations were limited. Teachers who rated social development as an important characteristic for children to have at school were less like to have a high score on the social climate subscale in the classroom, $r(14) = -.59, p < .05$.

All three subscales in the Classroom Observation Instrument – Kindergarten were moderately correlated at the $p < .001$ level ($rs$ ranged from .74 to .82). Therefore, a total classroom climate score was created by combining the three subscale scores, with a higher score signifying a more positive classroom climate. This mean total score ranged from 7.52 to 13.22 ($M = 11.48, SD = 1.50$), within a possible range from 3.30 to 16.67. Reliability analysis conducted on the items in this total classroom climate score (10 items) indicated an alpha coefficient of .89. Factor analysis\(^3\) was used to confirm this

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\(^3\) A further check for combining the ten items was undertaken using factor analysis. Maximum likelihood factor extraction was used with direct oblimin rotation, so the structure matrix could be analysed. A scree plot was used to determine which factors sat above the “elbow” in the plot to identify which factors contributed to explaining the variance in the data (Pallant, 2005).
and indicated one main factor explaining 53.86% of the overall variance and a clear break in the scree plot between the first and second factors. Based on the results of these analyses, this total score will be used in future analyses to represent classroom quality.

Table 6.17: Intercorrelations between classroom variables

<table>
<thead>
<tr>
<th>Teacher Goals</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Basic skills</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Higher order thinking</td>
<td>.31</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Social development</td>
<td>-.11</td>
<td>-.39</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Classroom Observation</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. Management</td>
<td>.11</td>
<td>.15</td>
<td>-.26</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Social Climate</td>
<td>-.08</td>
<td>.38</td>
<td>-.59*</td>
<td>.82***</td>
<td></td>
</tr>
<tr>
<td>6. Instruction</td>
<td>-.13</td>
<td>.12</td>
<td>-.32</td>
<td>.74***</td>
<td>.78***</td>
</tr>
</tbody>
</table>

* Correlation is significant at the .05 level
*** Correlation is significant at the .001 level

Summary of Time 1 and Time 2 Variables

A summary of the variables which have been identified as reliable and which will be used in testing the proposed model of school adjustment, in the next chapter of the thesis, are presented in Table 6.18. Cronbach alpha coefficients are presented as well as the means, standard deviations and range of scores for Time 1 assessment, Time 2 assessment, and mid-point assessment variables, separately. Items in each subscale are presented in brackets after the item name.

Data from the Child Care Choices study (Bowes et al, 2004) which administered the Classroom Observation Instrument – Kindergarten to 232 classrooms was used to further confirm the combining of items for the total subscale score.
## Table 6.18: Summary of Time 1 and Time 2 measures selected for inclusion in future analyses

<table>
<thead>
<tr>
<th>Measure (items)</th>
<th>TIME 1</th>
<th>TIME 2</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>α</td>
<td>M</td>
<td>SD</td>
<td>Range</td>
<td>α</td>
<td>M</td>
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<tr>
<td><strong>Teacher</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TRSSA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-directedness (9)</td>
<td>.94</td>
<td>12.97</td>
<td>4.47</td>
<td>1.00–18.00</td>
<td>.93</td>
<td>12.81</td>
</tr>
<tr>
<td>Cooperative Part. (8)</td>
<td>.95</td>
<td>13.70</td>
<td>3.12</td>
<td>1.00–16.00</td>
<td>.89</td>
<td>13.92</td>
</tr>
<tr>
<td>School Liking (5)</td>
<td>.84</td>
<td>7.56</td>
<td>0.89</td>
<td>5.00–10.00</td>
<td>.79</td>
<td>7.38</td>
</tr>
<tr>
<td>School Avoidance (5)</td>
<td>.67</td>
<td>1.15</td>
<td>1.39</td>
<td>0.00–6.00</td>
<td>.54</td>
<td>1.54</td>
</tr>
<tr>
<td>Comfort with Teacher (5)</td>
<td>.76</td>
<td>5.93</td>
<td>1.57</td>
<td>2.00–10.00</td>
<td>.67</td>
<td>5.99</td>
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<tr>
<td>STRS</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Conflict (12)</td>
<td>.90</td>
<td>18.75</td>
<td>8.16</td>
<td>12.00–44.00</td>
<td>.94</td>
<td>18.52</td>
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<tr>
<td>Closeness (11)</td>
<td>.85</td>
<td>43.50</td>
<td>6.31</td>
<td>29.00–55.00</td>
<td>.77</td>
<td>44.67</td>
</tr>
<tr>
<td>Dependency (5)</td>
<td>.58</td>
<td>9.64</td>
<td>2.85</td>
<td>5.00–18.00</td>
<td>.64</td>
<td>9.75</td>
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<tr>
<td><strong>Parent</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>ESBRS – P</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Total Problem Scale (27)</td>
<td>.86</td>
<td>48.39</td>
<td>9.82</td>
<td>34.00–84.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Competence (16)</td>
<td>.82</td>
<td>37.39</td>
<td>3.74</td>
<td>27.00–45.00</td>
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<td>STSC</td>
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<tr>
<td>Easy/Difficult Scale (17)</td>
<td>.81</td>
<td>23.10</td>
<td>4.74</td>
<td>14.76–36.67</td>
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<td></td>
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<tr>
<td>Parent-rated child adjustment (4)</td>
<td>.54</td>
<td>10.76</td>
<td>1.35</td>
<td>7.00–12.00</td>
<td>.69</td>
<td>16.20</td>
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<tr>
<td>Parent-teacher relationship (2)</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td>-</td>
<td>9.35</td>
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<tr>
<td><strong>Child</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Who Am I?</td>
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</tr>
<tr>
<td>Total Score (11)</td>
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<td></td>
<td></td>
<td></td>
<td>.86</td>
<td>34.15</td>
</tr>
<tr>
<td>School Feelings Q’naire</td>
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</tr>
<tr>
<td>School Liking (7)</td>
<td>.77</td>
<td>21.46</td>
<td>3.21</td>
<td>11.00–24.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>School Avoidance (5)</td>
<td>.71</td>
<td>9.50</td>
<td>3.68</td>
<td>5.00–15.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Classroom</strong></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Teacher Reported Goals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basic Skills (4)</td>
<td>.74</td>
<td>3.32</td>
<td>0.81</td>
<td>1.75–4.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Higher Order Thinking (4)</td>
<td>.72</td>
<td>3.21</td>
<td>0.85</td>
<td>1.86–4.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Development (2)</td>
<td>-</td>
<td>4.47</td>
<td>0.52</td>
<td>3.50–5.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Classroom Demographics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Years Teaching</td>
<td>-</td>
<td>20.17</td>
<td>10.73</td>
<td>1.00–34.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ratio children/aides</td>
<td>-</td>
<td>12.40</td>
<td>7.62</td>
<td>3.40–25.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>COI-K</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total classroom climate (10)</td>
<td>.89</td>
<td>11.48</td>
<td>1.50</td>
<td>7.52–13.22</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

_MID-POINT_
6.3.1 Key Findings

Results from bivariate correlation analyses presented in this chapter have identified some key findings. Links between child and family factors have been identified and have implications for future and more complex analyses. Maternal education was significantly associated with children’s language ability at the beginning of the year, showing that children with better developed language ability were significantly more likely to have mothers who had completed a higher level of education. Other links between child and family factors showed that better language ability was associated with better behaviour, an easier temperament and more social connections for children. Boys also showed less competent behaviours than girls at the beginning of the year. The significant relationships reported between these child and family factors provide an indication that some child measures can be used to represent other child and family measures.

Associations between teachers’ and parents’ ratings of children’s school adjustment and interpersonal relationships were identified at both the beginning and end of the year. These findings indicated that on some constructs, teachers’ and parents’ saw similar behaviours in the child and were therefore able to offer complementary information regarding how they were adjusting to school. However, teachers’ and parents’ ratings did not accord on all constructs indicating that there is still a need to include the perspectives of both in future analyses.

Links were also evident between children’s self-reported school liking and avoidance, measured by the School Feelings Questionnaire at the end of the year, and some aspects of teacher and parent reports of adjustment and interpersonal relationships. This suggests that the School Feelings Questionnaire (SFQ) is measuring similar constructs of school liking and school avoidance as the teacher and parent-rated measures, and that the closed-ended responses on the SFQ encourage children to respond in a way that matches with teachers’ responses on similar subscales in the Teacher Rating Scale of School Adjustment. Questions about children’s adjustment on the Adjustment to School Parent Questionnaire was designed to reflect the school liking and avoidance subscales designed by Ladd and Price (1987), as were the questions on the SFQ, therefore it would be expected that responses on these two measures would be related.

Associations between teachers’ self-reported goals and independent observations of the quality of the classroom environment did not accord. With only 16 teachers in the
sample, it is likely that the small sample size could be affecting the significance of relationships between these measures, although it may also be the case that teachers don’t “practice what they preach” (Stipek & Byler, 1997).

6.3.2 Chapter Summary

In keeping with the components of the proposed model of school adjustment, this chapter has presented the descriptive statistics for teacher, parent and child-rated adjustment and interpersonal relationship measures, administered at the beginning and end of the first year of school. It has also examined the descriptive statistics for classroom processes, such as classroom demographics and the quality of the learning environment, which may have an effect on later adjustment and interpersonal relationship outcomes. The following chapter will present results from a new measure of school adjustment, the Pictorial Measure of Stress and Wellbeing, by examining the personal, interpersonal and institutional components of school adjustment. Associations between the PMSSW and other measures of school adjustment at the beginning and end of the year will also be presented.
7 RESULTS FOR THE PICTORIAL MEASURE OF SCHOOL STRESS AND WELLBEING (PMSSW)

This chapter will present the results from the Pictorial Measure of School Stress and Wellbeing (PMSSW) for children interviewed at the beginning and end of the school year. Of the 105 children (53 girls, 52 boys) who participated in the study, 101 children were able to complete the PMSSW and meet the full cognitive requirements of the interview at the beginning of the year. One child had a global developmental delay; one child had Down syndrome; one had an undiagnosed cognitive delay; and the fourth did not want to undertake the interview. At Time 2, 96 children completed the PMSSW. Five children had moved either interstate, to another town, or to another school that was not participating in the study.

The coded data from each child’s transcript were entered into the computer program Statistical Package for the Social Sciences (SPSS v 11.5). Data were analysed to obtain frequency counts on children’s responses to the five questions for each of the nine scenarios.

First, responses to questions 1 and 2 of the PMSSW will be presented to describe children’s personal feelings about each scenario and the reasons they gave for their feelings. Children’s reasons will be examined in relation to the personal, interpersonal and institutional aspects of adjustment being tapped by each scenario. Responses at Time 1 and Time 2 will be presented separately followed by a comparison of these responses to assess the degree of change over time.

Second, responses to questions 3 and 4 will be presented to describe children’s perspectives of the teacher-child relationship. Whether or not children would share their feelings with their teacher is reported as an initial indicator of children’s feelings about the teacher. Children’s reasons for wanting or not wanting to share their feelings with the teacher are then examined to illustrate the type of relationship children have with their teacher. Time 1 and Time 2 results will be presented separately, and compared to assess the degree of change over time.

Third, responses to question 5 will be presented to examine children’s strategies for coping with the personal, interpersonal and institutional demands faced at school. Children’s use of constructive, school-related, passive, destructive, and unrealistic/idealistic coping strategies will be examined at Time 1 and Time 2, and the pattern of change over time for each of these strategies will be reported.
The fourth section of the chapter will present summary scores generated for the PMSSW that will be used in future analyses. Descriptive statistics will be presented for personal, relationship-related and school-related feelings and reasons for feelings, share feelings and reasons for sharing, and coping strategy scores. Bivariate correlations between these scores will also be presented.

The final section of the chapter will present intercorrelations between the PMSSW and outcomes from other adjustment measures rated by teachers and parents. Associations between children’s self-reported school liking and avoidance and their responses to the PMSSW will also be examined.

7.1 Descriptive Statistics for PMSSW scores at Time 1 and Time 2

The following sections present descriptive statistics for each of the five PMSSW questions. Frequency data are presented to show the number of children who gave a response in each of the coding categories (outlined in Chapter 4, section 4.4.5, p. 37-38), for each of the nine scenarios. Time 1 and Time 2 frequencies are presented. Where appropriate, change over time is also analysed, using cross tabulations.

7.1.1 Questions 1 and 2 - Positive and Negative Feelings about School

Results for Questions 1 and 2 are summarised in Table 7.1. Children’s feelings about school scenarios were grouped into two categories: positive and negative. The numbers and percentages of children in each group are presented for each of the nine scenarios. Children’s reasons for feeling positively or negatively about each scenario were coded in each of the three main categories: personal or child-related reasons, relationship reasons (relationship with their teacher, parent or peers), and school-related reasons. Personal reasons were those that were intrinsically motivated and indicated the child either liked or disliked something, or wanted to do something. Relationship reasons were those in which the child mentioned their teacher, parent or peer as their reason for feeling positive or negative about a given scenario. School-related reasons included responses that show school expectations and classroom routines such as saying what will happen next, or illustrate children feeling a certain way because it is expected of them. School-related reasons showed little emotional investment on behalf of the child.
Children’s feelings about aspects of the school day, and reasons for these feelings are presented and discussed under three broad groupings: Out-of-class scenarios, in-class scenarios and peer-related scenarios.

Change over time in children's responses to Question 1 was examined in order to determine whether children who gave a negative or positive response to a scenario at Time 1 also have a negative or positive response at Time 2. Cross tabulations (using a two by two table) were conducted to identify four groups of children: (1) those who were positive at both Time 1 and Time 2; (2) those who were negative at both Time 1 and Time 2; (3) those who changed from positive to negative, and; (4) those who changed from negative to positive.

Out-of-class Scenarios

Out-of-class scenarios were related to the personal and emotional demands of school. These scenarios were designed to encourage children to explore personal or intrinsically motivated reasons for their feelings and are likely to elicit information regarding children’s confidence and independence. Scenarios 1, 2, 5 and 7 were designed to be personal, out-of-class situations; therefore these scenarios will be examined with regard to children’s self-reported feelings and reasons for feelings.

Scenario 1 – Waving good-bye to parent in the morning. Scenario 1 was designed to assess the construct of separation anxiety and children’s confidence with leaving their parents in the morning. The expectation was that children would feel more negatively about this scenario at the beginning of the year than the end of the year, and that reasons for their feelings would tap personal factors of confidence with school and liking school as well as the relationship they have with their parents. Time 1 and Time 2 results are presented below.

Time 1. When asked how the child in the picture would feel when going into school and waving good-bye to their parent in the morning, the majority of children reported positive feelings at Time 1 (n = 86, 85.1%), although a sizable proportion (n = 15, 14.9%) gave a negative feeling.

Time 2. A similar number of children reported positive feelings (n = 83, 85.6%) and negative feelings (n = 12, 12.5%) at Time 2.

Change over time. Of the 94 children who contributed Time 1 and Time 2 data, 74 children remained positive at both assessments. Eight children who reported negative
Table 7.1: Descriptive statistics for PMSSW feelings and reasons at Time 1 and Time 2

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Note: percentages are based on 101 children who completed PMSSW at Time 1 and 96 children who completed PMSSW at Time 2.
Scenario 1: Waving good-bye to parent in the morning, Scenario 2: Lining up outside the classroom, Scenario 3: Speaking in front of the class, Scenario 4: Sitting on floor listening to teacher, Scenario 5: Going to toilet by yourself, Scenario 6: Doing school-work at desk, Scenario 7: Lining up at the canteen, Scenario 8: Entering the playground at the beginning of lunch, Scenario 9: Watching other children play in the sandpit.
feelings at Time 1 had changed to positive feelings at Time 2. These children may have experienced problems separating from parents and adjusting to school at the beginning of the year; however, their positive feelings at the end of the year provide support for their positive adjustment to school over time. Six children reported negative feelings at both assessments. These children are of concern, as they did not feel better about separating from their parent at the end of the year and going into school. This group of children may have continued to feel sad about leaving their mum or dad in the morning or could have disliked some other aspect of school, and would be expected to have experienced problems adjusting to school. Six children changed from feeling positive at Time 1 to feeling negative at Time 2. These children are also of concern as they felt worse about separating from their parent in the morning at the end of the year than they did at the beginning of the year.

Even though the number of positive responses was higher than the number of negative responses for this scenario, it is important to recognise the negative feelings reported by some children, which were elicited by the measure. Across the school year, some 12-15% of children expressed negative feelings about saying good-bye to their parent at the commencements of the school day. This proportion seems reasonable early in the kindergarten year, when factors such as separation anxiety and levels of self-confidence may be more likely to impact on children’s feelings, but such as proportion is worrying at the end of the year. It may be that by the end of the kindergarten year, other factors are coming into play. For example, children may not have developed close peer or teacher relationships throughout the year (Birch & Ladd, 1997), and could be struggling to connect with school in a way that makes them enjoy and look forward to going to school in the morning.

**Reasons for feelings.** When asked to describe why they felt that way at the beginning of the kindergarten year, close to half of the children ($n = 45, 44.6\%$) gave a personal reason that was indicative their personal experience of school as an enjoyable place to be, and a place to play and learn. For example, children who were positive about waving good-bye said they were “happy, because they get to play”. For the children who felt negatively about school, their personal reasons indicated that school was a place they didn’t want to be; for example they felt “sad, because he doesn’t want to go to school”. Relationships with parents, teachers or friends were given by about one-third of children ($n = 33, 32.7\%$) when explaining their feelings about this scenario. They mentioned missing their mum, wanting her to be there to help them feel less
anxious, or, looking forward to seeing their teacher or friends at school. School-related reasons focused on the routine aspects of the beginning of the school day, or teachers' behavioural expectations of children, for example “happy, ‘cause you’re supposed to be happy…” ‘cause when you’re cranky you go to the thinking chair”, but were given by only two children. The remaining children (n = 21, 20.8%) did not give a reason for their feelings and are not represented in the table.

When asked about saying good-bye to their parent at the end of school year, personal reasons were the most common (n = 39, 40.6). Relationship reasons were used by almost one-third of children (n = 30, 31.3%), and a small number of children (n = 4, 4.2%) gave school-related reasons. Twenty-three children (24.0%) did not give a reason or could not be classified.

Personal reasons for feelings were the most common response given by children at both Time 1 and Time 2. As this scenario was designed to elicit responses that related to the child and their feelings of independence and confidence, some construct validity for this scenario is provided.

Scenario 2 – Lining up outside the classroom. Scenario 2 was designed to assess how well children cope with conforming to the behavioural and routine requirements of the formal school environment. The expectation was that children’s reasons for their feelings would refer to their own self-confidence and a growing awareness of the routines of school. It was also expected that by the end of the year, children might have formed close relationships with other children in their class and look forward to standing near them “in line”.

Time 1. When asked how the child in the picture would feel when lining up outside the classroom in the morning, the majority of children reported a positive feeling at Time 1 (n = 85, 84.2%). A smaller number of children reported negative feelings (n = 15, 14.9%).

Time 2. The number of children who reported positive feelings (n = 88, 90.7%) increased slightly at Time 2, and the number who reported negative feelings (n = 8, 8.3%) dropped at the end of the year.

Change over time. Of the 94 children who contributed to Time 1 and Time 2 data, 75 children remained positive at both assessments. Eleven children changed from feeling negative about lining up at the beginning of the year to feeling positively about it at the end of the year. Three children reported negative feelings at both assessments. These children are of concern, as their feelings about lining up did not improve over the
school year. Of even more concern, however, were the five children reported positive feelings at the beginning of the year, but negative feelings at the end of the year.

The increase in positive feelings over the school year would be expected given this scenario was designed to assess children’s feelings about a routine requirement of school which would improve with experience. Children would be expected to become more familiar with the rules and routines of school over time. In general results confirmed these expectations. The number of children who described negative feelings had decreased at the end of the year; however, a small number remained or had become more negative about lining up for class.

Reasons for feelings. When asked to describe why the child felt that way the majority of children (n = 39, 38.6%) gave a personal reason, which gave an indication of their personal response to school, for example, “happy, because she likes going to school”. For the children who expressed negative feelings about lining up, personal reasons explained that they did not like this aspect of school; for example, “bad, because he doesn’t want to line up”. Some children gave a relationship reason when explaining their feelings about lining up (n = 17, 16.8%). For these children, peer and teacher relationships were an important part of this aspect of school; for example, “happy, because they like each other and they have friends”. School-related reasons related to school or teacher expectations, and a sizable number of children gave this type of response at Time 1 (n = 15, 14.9%). These responses reflected children’s understanding of the requirements of school and the routine nature of this scenario. Children who felt positive about lining up gave reasons supporting they were happy to conform to this routine aspect of school; for example they were “happy, ‘cause the teacher tells you when to line up”. Children who expressed negative feelings about lining up were often worried that they were not meeting the school or teacher expectations; for example, “sad, ‘cause she doesn’t have sunscreen or a hat”. The remaining children (n = 30, 29.7%) did not give a reason for their feelings or could not be classified.

When asked about lining up outside the classroom at the end of the year, the percentage of children who gave a personal reason for their feelings was lower (n = 23, 24.0%), and with more children giving a relationship reason (n = 25, 26.0%) or school-related reason (n = 19, 19.8%). A large number of children (n = 29, 30.2%) did not give a reason for their feelings or could not be classified.
The large number of personal reasons at the beginning and end of the year provides some construct validity for this scenario. As expected though, the number of children who gave relationship reasons for their feelings increased over the year.

**Scenario 5 – Going to the toilet by yourself.** Scenario 5 was designed to assess the construct of independence and children’s level of confidence in managing the task of going to the toilet. The expectation was that children would feel less positive about this scenario at the beginning of the year, and that as their level of self-confidence developed over the school year, they would feel more positive about going to the toilet by themselves. It was also expected that children’s reasons for their feelings would mainly relate to personal factors of self-confidence, especially at the beginning of the year. Results for Time 1 and Time 2 are presented below.

**Time 1.** As expected, negative feelings were a common response for this aspect of school compared to the previous scenarios. Only half of the children \( (n = 50, 49.5\%) \) reported positive feelings and just under half \( (n = 44, 43.6\%) \) reported negative feelings. Seven children did not give an appropriate feeling response.

**Time 2.** Slightly fewer children responded positively \( (n = 44, 45.4\%) \) and more reported negative feelings \( (n = 48, 50.0\%) \) at the end of kindergarten. Four children did not give an appropriate feeling response.

**Change over time.** Of the eighty-four children who contributed to Time 1 and Time 2 data, 23 children remained happy at both Time 1 and Time 2. Fifteen children changed from feeling negatively at Time 1 to feeling positively at Time 2. These results may be evidence of this group of children’s increasing level of maturity and may indicate a better adjustment to kindergarten especially in relation to personal attributes of independence and confidence. Twenty-seven children remained negative at both assessments. Nineteen children changed from feeling positive at Time 1 to feeling negative at Time 2. The latter group of children may have had negative experiences with going to the toilet by themselves throughout the year that has made them dislike this type of situation.

**Reasons for feelings.** When asked to describe why the child felt that way at the beginning of the year, the majority of children gave a reason that related to their personal experience of going to the toilet by yourself, as something that is both “grown-up” and “scary” \( (n = 43, 42.6\%) \). For example, children who were positive about going to the toilet by themselves said they were “happy, ‘cause he’s brave” or “happy, because she is going all by herself and knows the way to the toilet”. For those children who felt
negatively about this scenario, their personal responses indicated they were worried about going to the toilet by themselves for a number of reasons; for example they felt “scared, because it’s their first time by themself” and “sad, ‘cause he thinks that there’s going to be a monster in there”. A number of children gave a relationship reason for their feelings about going to the toilet by themselves \((n = 22, 21.8\%)\). For children who felt positively about this scenario, some of their relationship reasons indicated they felt self-conscious going to the toilet with their peers, for example they were “happy, ‘cause he doesn’t want somebody else to go with him (because) they might laugh at him when he goes to the toilet”. On the other hand, children who felt negatively about this scenario mentioned wanting their peers to go with them, and being scared because no-one was with them; for example they felt “nervous, because he is there by himself and he wants someone to go with him and wait out (side) for him”. A third category of reasons related to school and rules involved with going to the toilet. Eight children (7.9%) gave a school-related reason and said they felt “happy, because they were allowed to go to the toilet” and “happy, he has a pass on, a toilet pass”. Twenty-eight children did not give a reason or could not be classified.

When asked about going to the toilet by themselves at the end of the year, relationship reasons were most common \((n = 39, 40.6\%)\), however a number of children also gave a personal reason \((n = 27, 28.1\%)\) and a small number of children gave a school-related reason \((n = 5, 5.2\%)\). There were twenty-five children (26.0%) who did not give a reason or could not be classified.

This picture was designed to assess the construct of independence, and children’s feelings about this scenario would be expected to get more positive by the end of the year, as children became more independent and secure with this activity. However, this was not the case. Results showed that children became more rather than less stressed about going to the toilet by themselves, and less independent. An examination of the reasons for children’s feelings appears to offer some explanation for this. It is probable that children felt negatively about going to the toilet by themselves at the beginning of the year because they were unfamiliar with the experience, and may have had parents or caregivers prior to school helping them go to the toilet, or at least nearer to them. But, at the end of the year, children’s concerns related more to having a friend to go with. Children reported needing or wanting their friends to come with them and not liking going by themselves. It is possible that at the end of the year, children see
going to the toilet as a more of a social event, allowing them to be out-of-class, and providing them with an opportunity to talk or play with their friends.

Scenario 7 – Lining up at the canteen. Scenario 7 was an out-of-class scenario designed to assess children’s feelings of independence in going to the canteen alone. The expectation was that children would feel less positive about this scenario at the beginning of the year than the end of the year, and that reasons for their feelings would mainly relate to personal factors such as self-confidence. Results from Time 1 and Time 2 are presented below.

Time 1. When asked how the child in the picture would feel when Lining up at the canteen at the beginning of the year, the majority of children reported positive feelings at (n = 83, 82.2%). Some children (n = 10, 9.9%) reported negative feelings. Eight children did not give an appropriate feeling response.

Time 2. A similar number of children reported positive feelings (n = 82, 84.5%) and negative feelings (n = 6, 6.3%) about lining up at the canteen at the end of the year.

Change over time. Of the 80 children who contributed Time 1 and Time 2 data, 66 children remained positive at both assessments. Eight children who reported feeling negative at Time 1 changed to feeling positive at Time 2. These positive changes are in line with the expectation that children would become more independent and confident with this situation over the year. One child reported negative feelings at both assessments and five children changed from feeling positively about at Time 1 to feeling negative at Time 2. Even thought this is not a large number of children who have experienced negative change over time, these children may not have developed appropriate levels of independence with regard to lining up at the canteen. Only children, who have either ordered their lunch or have been given money by their parents to buy their lunch, attend the canteen. Thus, it may be the case that some children do not go to the canteen all that often. Alternatively, some children may go to the canteen very often, which might increase their chances of having negative experiences.

Reasons for feelings. When asked about lining up at the canteen at the beginning of the year, the vast majority of children’s reasons were of a personal nature (n = 67, 66.3%), which related to children’s increasing independence and their understandings of what happened at the canteen. For children who felt positively about this scenario, their personal reasons indicated their liking of buying food, for example, “happy, ‘cause they’re buying something yummy”. Children who felt negative about this scenario explained feeling nervous or sad as they became familiar with what happens at the
canteen; for example, “nervous, because she hasn’t been to the canteen before”; “sad, because they haven’t got any money left”. Some children mentioned a relationship with their peers and even the canteen lady on their trip to the canteen (n = 8, 7.9%). Children who felt positively about this scenario told of positive peer relationships and said they felt “happy, ‘cause she’s buying something and she wants to share it with her friends”. Children who reported negative feelings about this scenario related negative peer experiences at the canteen including incidents of bullying, for example, “scared, because last time when I go to the canteen, there’s too many kids trying to fight me…and they might say ‘hurry up’”. Only one child gave a school-related reason for lining up at the canteen, and twenty-five children did not give a reason or could not be classified.

When asked about lining up at the canteen in Term 4 of the school year, personal reasons were again the most common (n = 64, 66.7%). Relationship reasons were given by around ten percent of children (n = 10, 10.4%) and five children (5.2%) gave a school-related reason for their feeling. Seventeen children did not give a reason or could not be classified.

It was expected that this scenario would assess the construct of independence, and self-confidence associated with lining up at the canteen. Results for personal reasons provide construct validity for this aspect of the PMSSW design. Personal responses were expected for this scenario as it is a situation where the classroom teacher and peers are not necessarily present and it is something kindergarten children are likely to do on their own.

**In-class Scenarios**

In-class scenarios were related to the institutional demands of school. These scenarios were designed to encourage children to explore extrinsically motivated reasons for their feelings, and are likely to elicit information regarding children’s knowledge about the school rules and routines. Scenarios 3, 4, and 6 were in-class scenarios; therefore these scenarios will be examined with regard to children’s self-reported feelings and reasons for feelings.

**Scenario 3 – Speaking in front of the class (telling news).** Scenario 3 was designed to assess the construct of self-confidence, in-class, in a group setting with familiar peers. The expectation was that more children would feel negative about this scenario at the beginning of the year, but that as they gained more confidence and
experience with speaking in front of the class children would feel more positive feelings at the end of the year. It was expected that self-reported reasons for children’s feelings would mainly relate to school-routine factors, however personal factors of confidence were also expected to come into play. Results for Time 1 and Time 2 are presented below.

**Time 1.** When asked how the child in the picture would feel when standing in front of the class telling news, the majority of children \((n = 93, 92.1\%)\) reported positive feelings at the beginning of the year. Only eight children \((7.9\%)\) felt negatively about this scenario.

**Time 2.** Slightly fewer children reported positive feelings at Time 2 \((n = 83, 85.6\%)\) and slightly more children reported negative feelings \((n = 13, 13.5\%)\).

**Change over time.** Of the 95 children who contributed to Time 1 and Time 2 data, 76 children remained positive at both assessments and six children changed from feeling negative at Time 1 to positive at Time 2. These children are possibly those who developed more self-confidence over the school year as they became more familiar with this event. Only two children reported negative feelings at both assessments. However, eleven children who reported positive feelings about telling news at the beginning of the year, changed to a negative feeling at the end of the year. It appears that the level of self-confidence in these children has dropped by the end of the year.

**Reasons for feelings.** When asked to describe why they felt that way at the beginning of the year, more than half of the children gave personal reasons \((n = 58, 57.4\%)\). Children who were positive about telling news referred to it as an enjoyable activity and an opportunity to talk about special things that happened to them, for example, “happy, because they like telling news”. On the other hand, children who gave a personal reason and felt negatively about this scenario explained their feelings in terms of being sad or nervous about speaking in front of others; for example, “sad, ‘cause she’s standing in front of everyone”; “nervous, because she thought school wasn’t like this”. A number of children gave a relationship reason for their feelings about this scenario \((n =10, 9.9\%)\). Their responses focused on relationships with their peers and wanting to share their news with their friends; for example, “happy, because everyone likes her and she’s telling them all about it”; “happy, because I’m showing something really special to my friends”. Children who gave a school related reason for their feelings about this scenario \((n = 9, 8.9\%)\) seemed to focus on the rules surrounding telling news. For those who felt positively, their responses showed an understanding of
the routine aspects of telling news and knowing what to do, for example, “happy, ‘cause
you can stand there and say good morning kinder and that”. For the children who felt
negatively about telling news, their responses showed a degree of discomfort with the
rules about news; for example, “shy, because you have to do it in front of the class”.
Twenty-four children at Time 1 did not give a reason or could not be classified.

At the end of the year, personal reasons for children’s feelings were the most
common ($n = 48, 50.0\%$). Some children ($n = 11, 11.5\%$) gave relationship reasons for
their feelings, and some children ($n = 14, 14.6\%$) gave school-related reasons. Twenty-
three children (24.0\%) at Time 2 did not give a reason or could not be classified.

This scenario was designed to measure children’s understanding of and
confidence with the rules and routines of the classroom environment. Some construct
validity is provided for this assumption by the increase in school-related reasons for
children’s feelings over the school year. However, the high number of personal reasons
for feelings indicates that this scenario was also measuring children’s self-confidence
in-class. Although some children focused on school routines such as taking turns,
children were more likely to focus on personal factors, such as bringing something good
to show for news and being confident in standing in front of the class speaking. The
activity of telling news may change from the beginning of the year, when children may
be allowed to choose their own topics and have more teacher support, to the end of the
year, when the academic outcomes for this activity are more pronounced and children
may be required to speak on a specific topic designated by the teacher, and may have
less teacher support and more expectations for the way they should present their ideas to
the class.

Scenario 4 – Sitting on floor listening to teacher. Scenario 4 was designed to
assess how well children coped with conforming to behavioural and routine
requirements of school in a group setting. The expectation was that children’s reasons
for their feelings would mainly relate to classroom routines and teacher expectations. It
was also expected that children’s responses would also relate to children’s relationship
with their teacher. Results for Time 1 and Time 2 are presented below.

Time 1. When asked how the child in the picture would feel when sitting on the
floor and listening to their teacher, the majority of children reported positive feelings at
Time 1 ($n = 86, 85.1\%$). A small number of children reported a negative feeling ($n = 11,$
10.9\%).
Time 2. Slightly more children reported positive feelings about this scenario at Time 2 \( (n = 88, \ 90.7\%) \), and correspondingly, slightly fewer children \( (n = 7, \ 7.2\%) \) reported negative feelings.

\textbf{Change over time.} Of the 90 children who contributed Time 1 and Time 2 data 76 children remained positive at both assessments. Negative feelings at the beginning of the year were expected to decline over the year, as this situation became more familiar to children. Indeed this was the case for seven children who changed from reporting negative feelings at Time 1 and positive feelings at Time 2. Two children gave a negative feeling at both assessments and five children reported positive feelings at Time 1 and negative feelings at Time 2. Altogether, these eight children are a concerning group who may be at risk of adjustment problems. As this scenario happens many times everyday, children who find it difficult and don’t like sitting on the floor listening to their teachers may be more likely to dislike school in general. Even though the number of children who reported negative feelings for this scenario at either Time 1 or Time 2 was reasonably low, it is a concern that any children feel negatively about an event that occurs in classrooms everyday.

\textbf{Reasons for feelings.} When asked to offer reasons for their feelings at the beginning of the year, personal reasons were given by 25 children \( (24.8\%) \). Children who gave personal reasons referred to such things as enjoying listening to the teacher and liking school and learning in more general terms; for example, “happy, ‘cause I like listening to stories”. Relationship reasons were also given by 25 children \( (24.8\%) \). Children’s relationship reasons included positive relationships with the teacher and with peers (and two children mentioned they were sad because they missed their mum). Children’s positive relationship responses referred to them liking sitting next to friends; for example, “happy, because he’s sitting with all the girls”, “happy, cause I can sit next to my boyfriend”. Positive relationships with their teachers were also evident as some children explained that they felt “happy, because they love listening to their teacher”. A third category of reasons related directly to school and the routine requirements and expectations of teachers. Some children gave a school-related reason when expressing negative feelings about sitting on the floor listening to their teacher \( (n = 23, \ 22.8\%) \); for example, “sad, because we have to learn everything”. While other children were happy to conform to the classroom routines; for example, “happy, because we sit down and be quiet”. Twenty-eight children did not have reason or could not be classified.
At the end of the year, school-related reasons for children’s feelings were the most common \( n = 38, 39.6\% \) followed by relationship reasons \( n = 29, 30.2\% \), and then personal reasons \( n = 14, 14.6\% \). There were 15 children at Time 2 who did not give a reason or could not be classified.

This scenario aimed to assess children’s understandings of the behavioural and routine expectations of school, and indeed the high number of school-related reasons given by children at both Time 1 and Time 2, provide construct validity for the PMSSW. This scenario had the highest number of school-related reasons at either Time 1 or Time 2 out of all scenarios. It may be that children have developed a stronger understanding of what is required of them behaviourally at the end of the year, and they use this understanding to inform their feelings about and reactions to this situation.

**Scenario 6 – Doing work at desk.** Scenario 6 was designed to assess children’s feelings of confidence with their academic ability, and whether they enjoyed learning experiences at school. The expectation was that children’s reasons for their feelings would mainly refer to school-related examples such as meeting teacher’s expectations. It was also expected that children’s confidence would be expressed in personal reasons for feelings. Results for Time 1 and Time 2 are presented below.

**Time 1.** When asked how the child in the picture would feel about doing work at their desk, the majority of children reported positive feelings at Time 1 \( n = 80, 79.2\% \). A considerable number also reported negative feelings \( n = 17, 16.8\% \).

**Time 2.** A similar number of children reported positive feelings \( n = 79, 81.4\% \) and negative feelings \( n = 14, 14.6\% \) at the end of the school year compared to the beginning of the year.

**Change over time.** Of the 89 children who contributed Time 1 and Time 2 data, 62 children remained positive at both assessments. Thirteen children changed from reporting negative feelings at Time 1 to reporting positive feelings at Time 2. Three children reported negative feelings at both assessments. A more troubling finding is that 11 children changed from reporting positive feelings at Time 1 to reporting negative feelings at Time 2. These children are of concern, as their negative feelings associated with this scenario indicate they may not feel confident with or enjoy the academic aspects of school. Because working at your desk is something that happens everyday at school, it is worrying that these children consider this an unhappy or boring experience, especially given that this type of experience is going to become more prevalent in their school career.
Reasons for feelings. When asked to describe why they felt that way at the beginning of the year, many children gave personal reasons and described enjoying doing schoolwork and drawing \( (n = 41, 40.6\%) \), for example, “glad, ‘cause they might wanna learn how to write”. Children who were negative about doing work at their desk indicated a dislike for doing work; for example, “bored, because they don’t want to do work”. School-related responses were also common \( (n = 21, 20.8\%) \) with children either wanting to meet teacher’s expectations and understanding what is involved with the academic requirements of school, or disliking having to do work they thought was hard; for example, “happy, because she’s not disturbing anyone”. Children who felt negatively mentioned feeling “tired, because they’ve had to do their work for a very long time”. Relationship reasons were mentioned by some children \( (n = 14, 13.9\%) \) and involved children talking about their peers and the teacher (and also missing their mum and dad in one case). Children who were positive about doing work at their desk mentioned feeling “happy, because the teacher doesn’t have to tell everyone what to do” or “happy, cause my friends be nice to me”. Children who felt negatively about doing work at their desk mentioned conflict in their relationships with peers; for example, “sad, because if they were holding a pencil then someone could have taken it off them”.

Twenty-five children did not give a reason for their feelings or could not be classified.

When asked about doing work at their desk in Term 4, school-related reasons were the most common \( (n = 36, 37.5\%) \), although many children also reported personal reasons \( (n = 29, 30.2\%) \). Not as many children gave relationship reasons \( (n = 13, 13.5\%) \). Eighteen children did not give a reason or could not be classified.

These results suggest that at the beginning of the school year, children’s reasons for liking or disliking doing school-work at their desks were more likely to be personal, and intrinsically motivated, and less based on a relationship with their teacher or peers, or on the expectations of the teacher and routine of the classroom. However, at the end of the year, children’s reasons had become more extrinsically motivated. In fact, this scenario has the second highest number of school-related responses at Time 1 and Time 2. This scenario was designed to assess early school attitudes and children’s own perceptions of their academic competence. The high number of personal reasons given by children and the change over time to school-related reasons provides some construct validity for the PMSSW. Children’s early attitudes towards doing work in class were mainly positive, although there is some concern for the 14\% of children who felt negatively about this scenario at Time 1 and Time 2. Support for children’s perceptions
of their academic competence can only come in the form of positive or negative feelings about the scenario; therefore children’s self-perceived academic competence is, in general, positive.

**Peer-related Scenarios**

Peer-related scenarios were related to the interpersonal demands of school. These scenarios were designed to encourage children to explore relationship reasons for their feelings and were likely to elicit information regarding children’s confidence in relationships with peers and self-reported social competence. Scenarios 8 and 9 were designed to be peer-related scenarios and will be examined with regard to children's self-reported feelings and reasons for feelings.

*Scenario 8 – Entering the playground at the beginning of lunch.* Scenario 8 was designed to assess children’s confidence with peers and sense of social competence. The expectation was that children’s reasons for their feelings would mainly relate to personal factors of self-confidence, as well as relationship factors such as peer acceptance. Results for Time 1 and Time 2 are presented below.

**Time 1.** When asked how the child in the picture would feel about entering the playground at the beginning of lunch, the majority of children offered positive feelings \((n = 79, 78.2\%)\) at the beginning of the year. A sizeable proportion of children reported negative feelings \((n = 18, 17.8\%)\). Four children did not give an appropriate feeling response.

**Time 2.** Positive feelings were reported by 76 children \((78.4\%)\) at the end of the year and 19 children \((19.8\%)\) reported negative feelings. One child did not give a feeling response.

**Change over time.** Of the 90 children who contributed Time 1 and Time 2 data, 61 children were positive at both assessments. Ten children changed from feeling negative at the beginning of the year to feeling positive at the end of the year. These children seem to be following a natural progression in their social and emotional adjustment; that is, the more they become familiar with the environment and the social circumstances, the more positive they feel. Five children reported negative feelings at both assessments and 14 children who reported positive feelings at the beginning of the year changed to negative feelings at the end of the year. These children are a worrying group. Even though it might be expected that entering the playground would be quite daunting at the beginning of the year, it would also be expected that children would feel
more confident with this and have developed positive peer relationships by the end of the year, and that this would decrease perceptions of stress. Children who continue to express negative feelings may be at risk of having difficulty adjusting to the social demands of school.

**Reasons for feelings.** When asked to describe why the child felt that way about entering the playground at the beginning of the year, the majority of children gave personal reasons for their feelings (n = 51, 50.5%) that referred to the things children like to do in the playground, such as climb or play in the sand pit. Children who reported positive feelings about entering the playground mentioned feeling “happy, because he always wants to go on the bars”. A considerable number of children referred to the relationships they had with peers in the playground (n = 26, 25.7%). For the children who mentioned positive relationships, reference was made to wanting to play with their friends and having lots of friends; for example, “happy, ‘cause he wants to play with his friends on the fixed equipment”. Children who mentioned negative relationships referred to their peers being mean to them, or to themselves as not having any friends; for example, “a bit sad, because no one wants to play with him”. A few children also referred to relationships they had with their siblings who were at school and looked forward to playing with them at lunchtime. A small number of children gave a school-related reason (n = 5, 5.0%), which showed their knowledge of the school rules and routine, for example, “happy, ‘cause it’s kinder’s turn on the equipment”. Nineteen children did not give a reason or could not be classified.

When asked about entering the playground at the end of the school year, personal reasons for feelings were the most common response (n = 49, 51.0%), although relationship reasons were also given by a large number of children at the end of the year (n = 32, 33.3%). A small number of children gave a school-related reason (n = 6, 6.3). Nine children did not give a reason for their feelings at Time 2 or could not be classified.

Even though personal reasons for feelings were given by the majority of children at the beginning and end of the year, the percentage of children who gave a relationship reason was substantial. Children’s relationship reasons increased from Time 1 to Time 2 indicating the development of children’s relationships over time. This scenario was designed to measure the construct of perceived social competence and whether children feel they are confident to approach peers in the playground. Thus, it was expected that children would mention more relationship reasons than other reasons.
for their feelings. The high number of personal responses indicates that this scenario is also measuring children’s own self-confidence and school liking, as well as social competence and perceived peer relationships.

**Scenario 9 – Watching other children play in the sandpit.** Scenario 9 was designed to assess the construct of perceived peer relationships and the level of confidence children have with joining in other children’s play. The expectation was that children’s reasons for their feelings would mainly relate to the relationships they have with their peers as well as their own self-confidence associated with approaching others to ask if they can join in play. Results for Time 1 and Time 2 are presented below.

**Time 1.** When asked how the child in the picture would feel when watching other children in the sandpit, the majority of children reported negative feelings at Time 1 \((n = 56, 55.45\%)\). A considerable proportion gave a positive feeling \((n = 41, 40.6\%)\) and four children did not give a feeling response.

**Time 2.** A much higher number of children reported a negative feeling about watching other children play in the sandpit at the end of the year \((n = 79, 82.3\%)\). Only 16 children \((16.5\%)\) reported positive feelings about this scenario at Time 2 and one child did not give an appropriate feeling response.

**Change over time.** Of the 90 who contributed Time 1 and Time 2 data, 11 children remained positive at both assessments. Additionally, three children changed from feeling negative at the beginning of the year to feeling positive at the end of the year. These children had a positive outlook on their peer relationships and had confidence in their dealings with peers at the beginning and end of the year. They would be expected to be competent in social and emotional arenas and have adjusted to school well by the end of the year.

Fifty children felt negative feelings about watching other children play in the sandpit at both assessments and 26 children changed from feeling positive about this scenario at Time 1 to feeling negative about this scenario at Time 2. At the beginning of the year, these children saw themselves as having positive peer relationships and social confidence, whereas at the end of the year these children felt either rejected by peers or as though they weren’t able to play the same games as other children played. These two groups are of concern. This scenario illustrates a number of similar situations where children are left out of a game or not included in groups, such as mathematics or literacy groups, which they want to be in. The way children perceive these situations affects the way they deal with these types of situations, which in turn...
affects how they view their relationships with peers, and also how they view themselves. These two groups of children would be at risk of not adjusting well to kindergarten, especially with regard to their social and emotional development.

**Reasons for feelings.** When asked to describe why the child felt that way at the beginning of the kindergarten year, almost sixty percent of children gave a reason that related to them having a relationship with other children (n = 60, 59.4%). Positive responses exemplified children’s thoughts about having friends they would like to play with and joining in on the game in the sandpit, for example, “happy, because they love playing with friends”. Children who gave a negative response to this scenario, didn’t think the children in the sandpit were their friends, and mentioned feeling “alone” or “left out” because they had no one to play with, for example, “sad, ‘cause they won’t let her play” and “sad, because they want to join in the game but the people said no”. A number of children also gave a personal reason for their feelings about this scenario (n = 18, 17.8%). These responses indicated more intrinsically motivated reasons for their feelings. Children who felt happy about watching other children in the sandpit, mentioned liking playing by themselves, or wanting to go and play in the sandpit, with no mention of the other children; for example they felt “happy, ‘cause she loves playing alone, ‘cause she won’t get annoyed”. Children who were unhappy about playing by themselves mentioned not being allowed to join in play and not liking that they were not able to play in the sandpit, however they didn’t mention their peers. For example they felt “sad, because she doesn’t have nothing to play with and she wants to go home and play with the sand”. Only one child (1.0%) gave a school-related reason for their feelings.

At the end of the year relationship reasons for children’s feelings were the most common (n = 77, 80.2%). Personal reasons were given by only 7 children (7.3%) and one child (1.0%) offered a school-related reason for their feelings. Eleven children did not give a reason for their feelings or could not be classified.

At the beginning and end of the school year, negative feelings about watching others play in the sandpit outweighed positive feelings, with negative feelings becoming more evident at Time 2. This picture was designed to assess the construct of perceived peer relationships and whether or not children are confident approaching a small group of peers. The number of children who gave relationship reasons at Time 1 and Time 2 lend support to the construct validity of this scenario. It may be that children had experienced more negative situations involving peers by the end of the year and peer
groups including some children and excluding others had formed. Results suggest that at the beginning of the year children may depend less on what other children think about them, and may rely more on their own intrinsic response to the situation (higher number of personal reasons at Time 1). However, by the end of the year, children appeared to be more aware of what their peers might think of them (higher number of relationship reasons at Time 2).

**Summary**

Although most children expressed positive feelings about scenarios presented to them at Time 1 and Time 2, there were a number of children who reported negative feelings. Two scenarios in particular, Going to the toilet by yourself and Watching other children play in the sandpit, elicited the most negative feelings from kindergarten children. Children’s reasons for why they felt a certain way about each scenario provided construct validity for the Pictorial Measure of School Stress and Wellbeing.

**7.1.2 Questions 3 and 4 - Sharing Feelings with the Teacher and Reasons**

Questions 3 and 4 were used to gather children’s perspectives on the quality of the teacher-child relationship, to examine whether this relationship changed over the course of the first year. The PMSSW provides an indirect means of assessing children’s views about the teacher-child relationship by asking children whether they would share their feelings with the teacher. This approach requires children to make a judgement on whether or not it was appropriate to share feelings, as well as whether or not the teacher would want them to share their feelings.

Results for children’s responses to whether or not they would share their feelings with their teacher, along with their reasons for wanting or not wanting to share their feelings are summarised for each of the nine scenarios in Table 7.2. Discussion of children's responses to “share feelings with the teacher” is based on their overall pattern of responses, as this was expected to be similar across scenarios.

Children’s reasons for their responses to “share feelings” provide a more informative picture of the type of relationship children have with their teacher. Reasons were tied to children’s overall view of the teacher and were not scenario driven (as in the previous section). Reasons are presented in three groupings. Personal reasons were those that referred to the child liking what they were doing or wanting to tell the teacher for a personal reason. Relationship reasons were evident when children mentioned the
Table 7.2: Descriptive statistics for PMSSW share feelings and reasons at Time 1 and Time 2

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</table>

Note: percentages are based on 101 children who completed PMSSW at Time 1 and 96 children who completed PMSSW at Time 2.

Scenario 1: Waving good-bye to parent in the morning, Scenario 2: Lining up outside the classroom, Scenario 3: Speaking in front of the class, Scenario 4: Sitting on floor listening to teacher, Scenario 5: Going to toilet by yourself, Scenario 6: Doing school-work at desk, Scenario 7: Lining up at the canteen, Scenario 8: Entering the playground at the beginning of lunch, Scenario 9: Watching other children play in the sandpit.
teacher in their response, especially liking the teacher or the teacher caring how the child felt. Meeting teacher expectations was scored when reasons referred to the child wanting to share their feelings with the teacher because the teacher would think the child is doing the right thing and being “good”.

Children who did not offer any significant information or an appropriate reason regarding why they would or would not share their feelings with the teacher were categorised as “did not give reason”, which has been created by summing the “no response”, “other” response, “don’t know” response, and “restate scenario” response categories.

**Sharing feelings with the teacher**

**Time 1.** Results presented in Table 7.2 show that children’s responses to sharing feelings with the teacher were primarily positive at the beginning of the year for over 80% of children said they would want to share their feelings with the teacher to eight of the nine scenarios. Slightly fewer children \((n = 76, 75.2\%)\) said they would want to share their feelings with the teacher in Scenario 5, Going to the toilet by yourself. The highest number of children (14.9%) said they would not want to share their feelings with the teacher for Scenario 5. As this scenario elicited negative feelings from over 40% of children, it is not surprising that children may be reluctant to share their negative feelings with the teacher.

**Time 2.** Children’s responses to sharing feelings with the teacher were slightly less positive at the end of the year compared to the beginning of the year. Percentages dropped to between 70% and 80% and a higher number of children reported not wanting to share their feelings with their teacher to many of the scenarios. Between 9% and 19% of children said they would not want to share their feelings with the teacher across scenarios. This could be attributed to children feeling that they need the teacher less, or being less dependent on the teacher. Interestingly, the two scenarios that elicited more negative responses showed an increase in the number of children who would share their feelings with the teacher; Scenario 5 \((n = 80, 83.3\%),\) Going to the toilet by yourself and Scenario 9, Watching other children play in the sandpit \((n = 83, 86.5\%).\) It is possible that these children wanted their teacher to know how they were feeling because they needed the teacher to help them feel better in these stressful scenarios.
**Reasons for sharing feelings with the teacher**

Reasons for sharing or not sharing feelings with the teacher were coded into three main categories as summarised in Table 7.2. Results are presented for the overall pattern across the nine scenarios.

Personal or child-related reasons did not refer to the teacher or the child’s relationship with the teacher. In this category children explained personal reasons for wanting or not wanting to share their feelings with the teacher, for example, “because he likes school and he likes to write”. A second category, relationship reasons, illustrated children’s perspectives of their relationship with the teacher, for example, “because they like the teacher”. A third category indicated children’s desire to meet the teacher’s expectations, for example, “because they get a green tick”. These responses did not focus on a relationship with the teacher, but identified the children who focused on the rules and routines of the classroom and making the teacher happy in a behavioural sense. A fourth category did not offer any information about the teacher-child relationship and included children who did not give an appropriate response to the question.

It can be seen in Table 7.2 that approximately half of children’s responses fell into this fourth category, indicating only half of the children in this study were able to appropriately articulate a reason for their response. The first three categories will be examined in detail with regard to the change in children’s response across the scenarios over time.

**Personal reasons.** At the beginning of the year, personal responses were the most common response, with an average of 26.8% of children giving this response at Time 1 and 31.2% giving this response at Time 2. An exception was Scenario 4, Sitting on floor listening to teacher, which elicited the lowest number of personal responses at the beginning of the year (15.8%) although, not at the end of the year. At the end of the year, personal responses were the most common reason given to any scenario. The high number of personal reasons for children’s share feelings responses may be indicative of children’s focus on themselves at this young age.

**Relationship reasons.** This type of reason gave further insight into children’s perspectives of their relationship with the teacher. Over the nine scenarios, relationship reasons were given, on average, by 10.9% of children at Time 1 and 11.1% of children at Time 2. Relationship reasons were more common in some scenarios. For example, at
the beginning of the year more than 10% of children were likely to mention a relationship with their teacher in Scenarios 1, 2, 4, 5, and 9. At the end of the year, more than 10% of children were also likely to mention a relationship with their teacher in Scenarios 1, 2, 4, 5, and 9. Four of these scenarios are out-of-class situations. The smallest number of children referred to a relationship with their teacher in Scenario 6, Doing work at desk, at Time 1, and Scenario 7, Lining up at the canteen, at Time 2.

**Meeting teacher’s expectations.** Children mentioned meeting the teacher’s expectations in all scenarios at both Time 1 and Time 2. At both times, the majority of reasons relating to meeting the teacher’s expectations were given in Scenario 6, Doing work at desk. Other routine situations such as Scenario 2, Lining up outside the classroom, and Scenario 4, Sitting on floor listening to teacher, also had higher rates of responses referring to meeting the teacher’s expectations. Over the nine scenarios, an average of 10.4% of children gave this reason at Time 1 and 12.4% at Time 2. These results indicate a slight increase over the school year in children thinking about meeting the teacher’s expectations, and giving this as their reason for sharing their feelings with the teacher.

7.1.3 **Question 5 - Coping Strategies**

The final question in the PMSSW was designed to elicit children’s strategies for coping with in-class, out-of-class and peer-related aspects of the school days and to identify the personal resources children draw when dealing with everyday school situations. Children’s responses were coded into six main categories: constructive solutions, school-routine solutions, passive solutions, destructive solutions, idealistic/escapist responses, and no solution. Results for each of these categories are presented in Table 7.3, for each scenario at the beginning (Time 1) and end (Time 2) of the first year of school.

**Constructive solutions.** Constructive solutions were coded when the child’s response to the scenario made the situation better or more positive for the child through his/her own actions. These solutions typically contained a verb relating to what children would do in a specific situation, for example, they might ask someone if they could play or go and get a teacher to help them do something. Children used constructive solutions in both stressful and non-stressful situations. The highest number of constructive solutions were offered for Scenario 9 at Time 1 \((n = 43, 42.6\%)\), indicating that although many children reported negative feelings about this scenario, they were able to
Table 7.3: Descriptive statistics for PMSSW solution scores at Time 1 and Time 2

<table>
<thead>
<tr>
<th>Scenario</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Time 1</strong></td>
<td>N (%)</td>
<td>N (%)</td>
<td>N (%)</td>
<td>N (%)</td>
<td>N (%)</td>
<td>N (%)</td>
<td>N (%)</td>
<td>N (%)</td>
<td>N (%)</td>
</tr>
<tr>
<td>Solutions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constructive Solution</td>
<td>15 (14.9)</td>
<td>9 (8.9)</td>
<td>13 (12.9)</td>
<td>14 (13.9)</td>
<td>11 (10.9)</td>
<td>13 (12.9)</td>
<td>19 (18.8)</td>
<td>25 (24.8)</td>
<td>43 (42.6)</td>
</tr>
<tr>
<td>School routine Solution</td>
<td>50 (49.5)</td>
<td>57 (56.4)</td>
<td>53 (52.5)</td>
<td>33 (32.7)</td>
<td>51 (50.5)</td>
<td>36 (35.6)</td>
<td>45 (44.6)</td>
<td>37 (36.6)</td>
<td>17 (16.8)</td>
</tr>
<tr>
<td>Passive Solution</td>
<td>7 (6.9)</td>
<td>3 (3.0)</td>
<td>2 (2.0)</td>
<td>3 (3.0)</td>
<td>11 (10.9)</td>
<td>2 (2.0)</td>
<td>2 (2.0)</td>
<td>5 (5.0)</td>
<td>10 (9.9)</td>
</tr>
<tr>
<td>Destructive Solution</td>
<td>5 (5.0)</td>
<td>5 (5.0)</td>
<td>1 (1.0)</td>
<td>3 (3.0)</td>
<td>4 (4.0)</td>
<td>4 (4.0)</td>
<td>1 (1.0)</td>
<td>4 (5.0)</td>
<td>8 (7.9)</td>
</tr>
<tr>
<td>Unrealistic/idealistic response</td>
<td>11 (10.9)</td>
<td>13 (12.9)</td>
<td>14 (13.9)</td>
<td>22 (21.8)</td>
<td>8 (7.9)</td>
<td>18 (17.8)</td>
<td>7 (7.9)</td>
<td>8 (7.9)</td>
<td>6 (5.9)</td>
</tr>
<tr>
<td>No response/don’t know</td>
<td>13 (12.9)</td>
<td>14 (13.9)</td>
<td>18 (17.8)</td>
<td>26 (25.7)</td>
<td>16 (15.8)</td>
<td>38 (37.6)</td>
<td>27 (26.7)</td>
<td>22 (21.8)</td>
<td>17 (16.8)</td>
</tr>
<tr>
<td><strong>Time 2</strong></td>
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<td></td>
</tr>
<tr>
<td>Constructive Solution</td>
<td>55 (57.3)</td>
<td>36 (37.5)</td>
<td>20 (20.8)</td>
<td>33 (34.4)</td>
<td>30 (31.3)</td>
<td>26 (27.1)</td>
<td>53 (55.2)</td>
<td>35 (36.5)</td>
<td>43 (44.8)</td>
</tr>
<tr>
<td>School routine Solution</td>
<td>20 (20.8)</td>
<td>38 (39.6)</td>
<td>51 (53.1)</td>
<td>28 (29.2)</td>
<td>27 (28.1)</td>
<td>27 (28.1)</td>
<td>26 (27.1)</td>
<td>39 (40.6)</td>
<td>16 (16.7)</td>
</tr>
<tr>
<td>Passive Solution</td>
<td>7 (7.3)</td>
<td>2 (2.1)</td>
<td>4 (4.2)</td>
<td>1 (1.0)</td>
<td>19 (19.8)</td>
<td>3 (3.1)</td>
<td>1 (1.0)</td>
<td>6 (6.3)</td>
<td>16 (16.7)</td>
</tr>
<tr>
<td>Destructive Solution</td>
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<td>5 (5.2)</td>
<td>4 (4.2)</td>
<td>6 (6.3)</td>
<td>5 (5.2)</td>
<td>3 (3.1)</td>
<td>2 (2.1)</td>
<td>4 (4.2)</td>
<td>9 (9.4)</td>
</tr>
<tr>
<td>Unrealistic/idealistic response</td>
<td>4 (4.2)</td>
<td>8 (8.3)</td>
<td>12 (12.5)</td>
<td>18 (18.8)</td>
<td>6 (6.3)</td>
<td>23 (24.0)</td>
<td>2 (2.1)</td>
<td>4 (4.2)</td>
<td>3 (3.1)</td>
</tr>
<tr>
<td>No response/don’t know</td>
<td>6 (6.3)</td>
<td>7 (7.3)</td>
<td>5 (5.2)</td>
<td>10 (10.4)</td>
<td>9 (9.4)</td>
<td>14 (14.6)</td>
<td>12 (12.5)</td>
<td>8 (8.3)</td>
<td>9 (9.4)</td>
</tr>
</tbody>
</table>

Note: percentages are based on 101 children who completed PMSSW at Time 1 and 96 children at Time 2.

Scenario 1: Waving good-bye to parent in the morning, Scenario 2: Lining up outside the classroom, Scenario 3: Speaking in front of the class, Scenario 4: Sitting on floor listening to teacher, Scenario 5: Going to toilet by yourself, Scenario 6: Doing school-work at desk, Scenario 7: Lining up at the canteen, Scenario 8: Entering the playground at the beginning of lunch, Scenario 9: Watching other children play in the sandpit.
offer constructive ways to make this situation better for themselves. This scenario also had the second highest number of constructive solutions given at Time 2. Overall, fewer children reported constructive solutions at the beginning of the year, compared with the end of the year. At Time 1, an average of 17.8% of children mentioned a constructive solution, across the scenarios, whereas at Time 2, an average of 38.3% of children reported using constructive solutions. This increase over time could be attributed to a number of changes that take place in children over the kindergarten year. Children may be more familiar with school situations by the end of the year and, through experience, may have developed constructive methods of coping in those situations. Children may also be more capable to rely on their own resources at the end of the year and be more aware of their ability to handle situations that they don’t feel happy in. They may have developed more confidence in themselves as students to control situations, especially those that occur outside the classroom and outside the immediate vicinity of the teacher.

School-routine solutions. Children who gave this type of solution were relying on the rules and routines of the school day, as an indication of what would happen next. For example, the child might wait for the bell to ring and then line up, or might sit and listen to the teacher so they know the next thing to do. School-routine solutions suggested that children were reliant on the rules and routines of the school and class. School-routine solutions were the most common solution response for children in kindergarten at the beginning of the year, being used by children as “what might happen next” responses by a lot of children in many scenarios. School-related responses were used by around half of the children for Scenario 1 (Waving good-bye to parent in the morning) \(n = 50\), Scenario 2 (Lining up outside the classroom) \(n = 57\), Scenario 3 (Speaking in front of the class) \(n = 53\), and Scenario 5 (Going to the toilet by yourself) \(n = 51\). Just under half of the children \(n = 45\) gave this response to Scenario 7 (Lining up at the canteen). All of the above scenarios involve some sort of routine, for example, after saying good-bye to parents in the morning children are often required to put their bags outside or inside their classroom, lining up also requires a knowledge of the school routine, and children often have to line up in a certain way and at a specific place. Speaking in front of the class involves taking turns and asking questions at a certain time. Going to the toilet also involves rules and routines, other than the usual hand washing procedures. Some schools have a toilet pass you have to get from the teacher so other teachers know you are allowed to be out of your class, and when finished at the toilet children are usually required to come straight back to class. Lining
up at the canteen also involves rules and routines such as lining up in specific rows, sometimes based on whether you are in the infants or primary section of the school, giving the canteen lady money and receiving change, and even buying different types of food at certain times of the day (e.g., no lollies before lunch). This type of solution seems to be something children rely on at the beginning of the year when they are learning all of the new rules and routines, and becoming familiar with how to meet the expectations of the school and teacher.

Overall, more children reported school-routine solutions at the beginning of the year compared to the end of the year. At Time 1, an average of 41.7% (range = 16.8% to 56.4%) of children mentioned a school-routine solution, whereas at Time 2, an average of 31.5% (range = 16.7% to 53.1%) gave school-routine solutions. It seemed that as children became more familiar with the school routines and rules of school over the kindergarten year, and perhaps less focused on these rules, they were less likely to refer to a routine as a solution to a situation.

At each assessment, Scenario 3, Speaking in front of the class had the highest number of children (>50%) who gave a school-routine solution. This type of scenario tends to follow a set routine in kindergarten classrooms. Time is allocated each day for children to tell news, and often there are definite rules and routines which children need to follow, such as taking turns, bringing something special in to show the class, saying good morning/afternoon to the class, and asking if other children have any questions about the news. Children’s focus on the rules of this part of the day across the school year is evident; however, other scenarios were less likely to be associated with school-routine solutions.

Passive solutions. Passive solutions were coded when there was no active initiative from the child to help solve problems in stressful situations, and the outcome was neither constructive nor destructive. At Time 1 an average of 5% (range = 2.0% to 10.9%) of children gave a passive solution, whereas at Time 2 an average of 6.5% (range = 1.0% to 19.8%) of child gave a passive solution. Passive solutions were most common in scenarios identified as stressful – Scenario 5 Going to the toilet by yourself (10.9% at Time 1; 19.8% at Time 2), and Scenario 9, Watching other children play in the sandpit (9.9% at Time 1; 16.7% at Time 2), and increased from over the course of the year. These results indicate that even though some children developed more constructive coping strategies for school scenarios over time, others became more passive in their approach to dealing with stressful circumstances.
**Destructive solutions.** Destructive solutions were responses by children that focused on negative emotions or negative outcomes, and often involved the situation becoming worse for the child. Fewer than 4% (range = 1.0% to 7.9%) of children gave a destructive solution to scenarios at the beginning of the year, and 4.5% (range = 2.1% to 9.4%) gave a destructive solution at the end of the year. Children were most likely to mention a destructive coping response to Scenario 9, Watching other children play in the sandpit (7.9% at Time 1; 9.4% at Time 2). This suggests that children may be less likely to have developed positive coping strategies for interpersonal situations, such as those which are not directly managed by the teacher.

**Unrealistic/Idealistic responses.** Unrealistic or idealistic responses were often one or two words and indicative of something the child would prefer to be doing rather than being in the given scenario. For example, some children wanted to go home or rest, or do other activities that were unrelated to the scenario, such as paint or play when it was an in-class scenario. Usually children who gave this type of solution repeated the same type of response for more than one scenario. At the beginning of the year approximately 12% (range = 5.9% to 21.8%) of children gave an idealistic response, whereas at the end of the year this had reduced to 9% (2.1% to 24.0%). It was expected that as children became more familiar with school situations and developed more mature strategies for coping, their reference to idealistic possibilities would decrease.

Children were more likely to mention an idealistic outcome to in-class scenarios such as Scenario 4, Sitting on the floor listening to teacher (21.8% at Time 1; 18.8% at Time 2), and Scenario 6, Doing work at desk (17.8% at Time 1; 24.0% at Time 2). It seems that children’s reactions to the more cognitively based, institutional scenarios reflected their desire to be somewhere else or to be playing instead.

**No response/don’t know.** A final category included children who gave no response or no appropriate solution in the situation. Some children said they did not know what they would do next, while others restated the scenario or gave a response unrelated to the scenario. At the beginning of the year, an average of 21% (range = 12.9% to 37.6%) of children gave this type of response, whereas at end of the year, this had dropped to 9% (range = 5.2% to 14.6%) of children gave this response. The fact that fewer children responded in this way at the end of the year is indicative of children’s developing ability to think more deeply about their strategies for coping with school situations and to be drawing on their increased experience in these types of situations.
**Summary**

The solutions children reported in response to what might happen next in school scenarios changed over the school year. At the beginning of the year children were more likely to offer school-related solutions over the nine scenarios, which indicated their developing understandings of the rules and routines of the formal school environment. By the end of the year, children’s solutions were more constructive, which suggested children were relying more on themselves, and could be attributed to their increasing cognitive, social and emotional maturity. Further evidence of children’s increasing maturity was the dramatic decrease in the number of “no response/don’t know” responses given from the beginning to the end of the year, which reduced from 21% of children giving this response at Time 1 to 9% at Time 2.

7.1.4 **Descriptive Statistics, Change over Time and Intercorrelations for Total PMSSW scores**

**Descriptive Statistics**

Descriptive statistics for the total scores derived for the different coding categories generated by the PMSSW are presented for Time 1 in Table 7.4 and Time 2 in Table 7.5. Total scores were computed for the data presented for Questions 1 to 5 by combining children’s responses across the nine scenarios.

**Feelings and reasons.** Positive and negative feelings about each scenario were summed to create summary scores for each child at Time 1 and Time 2; descriptive statistics for these scores are presented in Table 7.4 (Time 1) and Table 7.5 (Time 2) as item 1. Children were allocated a score of 1 if they felt positively about a scenario, 0 if they did not offer a feeling response, and –1 if they felt negatively about a scenario. A total feelings score was created with a possible range from –9 to 9 for each child at Time 1 and Time 2, separately. Mean scores were then created from this total score, with a possible range of –8.11 to 8.11. At Time 1 scores ranged from –6.11 to 8.11 (M = 4.97, SD = 3.18) and at Time 2 scores ranged from –8.11 to 8.11 (M = 5.09, SD = 3.02).

Children’s reasons for their feelings were combined to create total scores for personal, school-related and relationship reasons at Time 1 and Time 2. Descriptive statistics for these scores are also presented in Table 7.4 (Time 1) and Table 7.5 (Time 2) as items 2, 3, and 4. Children were allocated a score if 1 if they gave a particular reason, or a score of 0 if they did not. Each category score had a possible range from 0 to 9 for each child. Personal reasons ranged from 0 to 8 at Time 1 (M = 3.82, SD = 1.98)
and 0 to 8 at Time 2 ($M = 3.12, SD = 1.87$). School-related reasons ranged from 0 to 4 at Time 1 ($M = 0.94, SD = 1.06$) and 0 to 5 at Time 2 ($M = 1.33, SD = 1.17$). Relationship reasons ranged from 0 to 7 at Time 1 ($M = 2.09, SD = 1.67$) and 0 to 8 at Time 2 ($M = 2.77, SD = 1.71$).

**Sharing feelings and reasons.** A total score was created for share feelings with the teacher by summing responses across the nine scenarios, and are presented as item 5 in Table 7.4 and Table 7.5. For each of the nine scenarios, children’s responses to the question “Would they (the child) want the teacher to know how they are feeling” were coded 1 = “yes”, the child would want the teacher to know how they were feeling; 0 = “did not respond”; or −1 = “no”, the child would not want the teacher to know how they were feeling. Responses were summed to give a total score for “share feelings with teacher” with a possible range from –9 to 9. At Time 1, children’s scores ranged from –3.89 to 8.11 ($M = 6.18, SD = 2.98$) and at Time 2, children’s scores ranged from –7.00 to 8.11 ($M = 5.21, SD = 3.98$). Reliability using Cronbach alpha coefficients were .83 at Time 1, and .83 at Time 2.

Total scores for children’s reasons for sharing/not sharing their feelings with the teacher were also created, by summing the number of times children gave a personal, relationship or school-related response across the nine scenarios. These scores are presented as items 6, 7, and 8 in Table 7.4 and Table 7.5. Children’s personal reasons for sharing their feelings with the teacher ranged from 0 to 9.00 ($M = 2.41, SD = 2.31$) at Time 1 and 0 to 9.00 ($M = 2.81, SD = 2.42$) at Time 2. Children’s school-related reasons for sharing their feelings ranged from 0 to 6.00 ($M = 0.92, SD = 1.35$) at Time 1 and 0 to 7.00 ($M = 1.11, SD = 1.61$) at Time 2. Children’s relationship-related reasons for sharing their feelings ranged from 0 to 8.00 ($M = 1.01, SD = 1.56$) at Time 1 and 0 to 5.00 ($M = 0.60, SD = 1.11$) at Time 2.

**Coping strategies.** Total scores were computed for constructive and school-routine solutions by summing children’s responses for the nine scenarios, and are presented as items 9 and 10 in Table 7.4 and Table 7.5. Constructive solutions ranged from 0 to 6.11 at Time 1 and from 0 to 8.11 at Time 2. Children’s school-routine solutions ranged from 0 to 8.11 at Time 1 and from 0 to 8.00 at Time 2.

**Change over Time**

Change in children’s responses over time was assessed using paired samples t-tests for each of the ten PMSSW items at Time 1 and Time 2.
Results for Time 1 and Time 2 show that children’s feelings about school scenarios did not change significantly over time. If children felt positive when they started kindergarten it was probable that they would also report positive feelings at the end of kindergarten. Changes were apparent, however, in children’s reasons for feeling happy or sad about school. Personal reasons decreased significantly over time, $M_{T1} = 3.82, M_{T2} = 3.12, t (95) = 3.33, p < .001$; School-related reasons increased significantly over time, $M_{T1} = 0.94, M_{T2} = 1.33, t (95) = -2.51, p < .01$; and children’s peer-related reasons also increased significantly from over time, $M_{T1} = 2.09, M_{T2} = 2.77, t (95) = -3.33, p < .001$.

Children’s responses to share their feelings with the teacher decreased significantly from Time 1 to Time 2, $M_{T1} = 6.16, M_{T2} = 5.21, t (94) = 2.69, p < .01$. However, the only reason for sharing feelings that changed significantly was children’s relationship responses, which also decreased from Time 1 to Time 2, $M_{T1} = 1.01, M_{T2} = 0.60, t (95) = 2.35, p < .05$.

Children’s self-reported coping strategies also changed over the school year. Children used significantly more constructive solutions at the end of the year compared to the beginning of the year, $M_{T1} = 1.23, M_{T2} = 3.05, t (94) = -7.54, p < .001$; and significantly less school-related solutions, $M_{T1} = 3.60, M_{T2} = 2.69, t (94) = 3.07, p < .001$.

**Intercorrelations**

Bivariate correlation analysis examined associations between items in the PMSSW and focused on the three aspects of school adjustment identified by children: personal, school-related and peer-related.

**Time 1.** Associations within the PMSSW identified that at the beginning of the year, children who gave personal reasons for their feelings were likely to give personal reasons for wanting to share their feelings with the teacher, $r (95) = .26, p < .01$. Children who gave personal reasons for their feelings were also likely to use constructive coping strategies, $r (95) = .28, p < .01$. In addition to this, children who gave personal reasons for wanting or not wanting to share their feelings with the teacher were also likely to give constructive coping strategies at the beginning of the year, $r (95) = .24, p < .05$. Personal reasons for feelings were a dominant finding at the beginning of the year with almost all other PMSSW items being significantly correlated with this item.
Children who referred to school in their reasons for feelings at the beginning to the year were not more likely to refer to school-expectations in their reasons for sharing/not sharing their feelings with the teacher. Children who mentioned school-related reasons for feelings were also not more likely to give school-routine coping strategies. Similarly, children who gave school-related reasons for wanting or not wanting to share their feelings with the teacher were not more likely to give school-routine coping strategies.

Children who mentioned a relationship-related reason for their feelings about scenarios at the beginning of the year were not more likely to give a relationship-related reason for sharing their feelings with their teacher. Children who gave a peer-related reason for their feelings were, however, significantly more likely to give a personal reason for sharing/not sharing their feelings with the teacher, $r(95) = .35, p < .001$.

**Time 2.** At the end of the year, children’s personal reasons for their feelings were correlated with their school-related solutions, $r(96) = .36, p < .001$, showing that children who felt more positive about school at Time 2 were more likely to give a school-related solution to school scenarios.

At the end of the year, children who were focused on meeting the expectations of the school and teacher, and following the rules and routines were significantly more likely to mention this school-related focus on their reasons for feelings at reasons for sharing/not sharing their feelings with the teacher, $r(96) = .34, p < .001$. However, they did not give significantly more school-related coping strategies. This signifies that as well as children being more reliant on the institutional aspects of school for their solutions to situations at the beginning of the year, for instance following routines such as lining up when the bell rings, the institutional demands made on children are more embedded in children’s reasons for feelings and whether or not they would share these feelings with their teacher. Children’s coping strategies, however, became more personal over the school year, indicating children’s increasing self-confidence and decreasing dependence on the routines of the school.

Children who mentioned a relationship-related reason for their feelings about scenarios were not more likely to give a relationship-related reason for sharing their feelings with their teacher, however they were more likely to give a personal reason for sharing/not sharing their feelings with the teacher, $r(96) = .32, p < .001$.

**Patterns over time.** At the beginning of the year, children who reported positive feelings about school scenarios were significantly less likely to want to share
<table>
<thead>
<tr>
<th>Time 1</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>M</th>
<th>SD</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Feelings (higher score = positive)</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4.97</td>
</tr>
<tr>
<td>2. Personal reason</td>
<td>.36***</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3.82</td>
<td>1.98</td>
</tr>
<tr>
<td>3. School-related reason</td>
<td>.05</td>
<td>-.01</td>
<td></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>0.94</td>
<td>1.06</td>
</tr>
<tr>
<td>4. Relationship-related reason</td>
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<td>-.29**</td>
<td>.07</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>2.09</td>
<td>1.67</td>
</tr>
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<td>5. Share feelings with teacher</td>
<td>-.34***</td>
<td>.37***</td>
<td>.13</td>
<td>-.03</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6.16</td>
<td>2.97</td>
</tr>
<tr>
<td>6. Share feelings personal reason</td>
<td>-.03</td>
<td>.26**</td>
<td>-.08</td>
<td>.35***</td>
<td>.16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2.41</td>
<td>2.31</td>
</tr>
<tr>
<td>7. Share feelings school-related reason</td>
<td>.23*</td>
<td>.24*</td>
<td>.11</td>
<td>-.02</td>
<td>.20*</td>
<td>-.02</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>0.92</td>
</tr>
<tr>
<td>8. Share feelings rel’ship-related reason</td>
<td>.01</td>
<td>.25**</td>
<td>.06</td>
<td>.05</td>
<td>.26**</td>
<td>-.13</td>
<td>-.03</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.01</td>
</tr>
<tr>
<td>9. Personal/Constructive coping</td>
<td>.15</td>
<td>.28**</td>
<td>.01</td>
<td>.18†</td>
<td>.17†</td>
<td>.24*</td>
<td>.31**</td>
<td>-.00</td>
<td></td>
<td></td>
<td></td>
<td>1.23</td>
</tr>
<tr>
<td>10. School-related coping</td>
<td>.22*</td>
<td>.30**</td>
<td>.13</td>
<td>.10</td>
<td>.23*</td>
<td>-.02</td>
<td>.15</td>
<td>.18†</td>
<td>-.18†</td>
<td></td>
<td></td>
<td>3.60</td>
</tr>
</tbody>
</table>

† Correlation is significant at the .10 level
* Correlation is significant at the .05 level
** Correlation is significant at the .01 level
*** Correlation is significant at the .001 level
Table 7.5: Intercorrelations between PMSSW total scores at Time 2

<table>
<thead>
<tr>
<th>Time 2</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>M</th>
<th>SD</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Feelings (higher score = positive)</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5.09</td>
<td>3.02</td>
<td>-8.11 – 8.11</td>
</tr>
<tr>
<td>2. Personal reason</td>
<td>.27**</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3.12</td>
<td>1.87</td>
<td>0.00 – 8.00</td>
</tr>
<tr>
<td>3. School-related reason</td>
<td>.17†</td>
<td>-.28**</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.33</td>
<td>1.17</td>
<td>0.00 – 5.00</td>
</tr>
<tr>
<td>4. Relationship-related reason</td>
<td>-.43***</td>
<td>-.42***</td>
<td>-.25**</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2.77</td>
<td>1.71</td>
<td>0.00 – 8.00</td>
</tr>
<tr>
<td>5. Share feelings with teacher</td>
<td>.22*</td>
<td>-.04</td>
<td>.12</td>
<td>.06</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5.21</td>
<td>3.98</td>
<td>-7.00 – 8.11</td>
</tr>
<tr>
<td>6. Share feelings personal reason</td>
<td>-.17*</td>
<td>-.10</td>
<td>-.10</td>
<td>.32***</td>
<td>.17†</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td>2.81</td>
<td>2.42</td>
<td>0.00 – 9.00</td>
</tr>
<tr>
<td>7. Share feelings school-related reason</td>
<td>.11</td>
<td>.04</td>
<td>.34***</td>
<td>-.06</td>
<td>.24*</td>
<td>-.15</td>
<td>-</td>
<td></td>
<td></td>
<td>1.11</td>
<td>1.61</td>
<td>0.00 – 7.00</td>
</tr>
<tr>
<td>8. Share feelings rel’ship-related reason</td>
<td>.27**</td>
<td>.14</td>
<td>-.07</td>
<td>.07</td>
<td>.17†</td>
<td>-.28**</td>
<td>-.04</td>
<td>-</td>
<td></td>
<td>0.60</td>
<td>1.11</td>
<td>0.00 – 5.00</td>
</tr>
<tr>
<td>9. Personal/Constructive coping</td>
<td>.34***</td>
<td>-.09</td>
<td>.32**</td>
<td>.00</td>
<td>.11</td>
<td>.16</td>
<td>.12</td>
<td>.12</td>
<td>-</td>
<td>3.05</td>
<td>1.95</td>
<td>0.00 – 8.11</td>
</tr>
<tr>
<td>10. School-related coping</td>
<td>.10</td>
<td>.36***</td>
<td>-.09</td>
<td>-.15</td>
<td>-.16</td>
<td>-.22*</td>
<td>.15</td>
<td>-.12</td>
<td>-.56***</td>
<td>2.69</td>
<td>2.02</td>
<td>0.00 – 8.00</td>
</tr>
</tbody>
</table>

† Correlation is significant at the .10 level
* Correlation is significant at the .05 level
** Correlation is significant at the .01 level
*** Correlation is significant at the .001 level
their feelings with the teacher, however at the end of the year, children who reported positive feelings about school scenarios were significantly more likely to want to share their feelings with the teacher. These results point to children’s dependence on the teacher earlier in the year and their increased self-reliance over the school year.

Personal reasons for feelings were a dominant finding at the beginning of the year, and were related to most other PMSSW items. However at the end of the year, personal reasons for feelings were less dominant, relating significantly to only three PMSSW items. At Time 1, children’s feelings about school scenarios were positively related to their school-related coping, whereas at Time 2, children’s positive feelings were related to constructive coping strategies. These results suggest that at the beginning of the year, children felt more positive at school when they understood the rules and routines of the formal school environment. Whereas, at the end of the year, children felt more positive when they were confident in their own ability to solve problems and make situations better.

At the beginning of the year, children who said they would share their feelings with the teacher were more likely to give school-related coping strategies, whereas at the end of the year, this was not the case. This result indicates that at the beginning of the year children who rely on the rules and routines of the school as coping strategies also feel it is important to tell the teacher how they are feeling. At the end of the year though, when there are less children who give a school-related solution, children are sharing their feelings with the teacher for a more personal reason.

Summary

In sum, the PMSSW has been successful in examining children’s individual experiences of the personal, interpersonal and institutional demands of the formal school environment. Children’s feelings about specific school situations have indicated their degree of stress or wellbeing at school. Additionally, children’s responses to whether or not they would share their feelings with their teacher and their reasons for sharing or not sharing, have illustrated the types of relationships children have with their teacher and their ability to elucidate this at the beginning and end of the first year of school. Children’s strategies for coping with stressful and non-stressful scenarios have also been identified in this section of the chapter. Differences in children’s coping strategies across the scenarios provided a further illustration of individual differences in
young children. Overall, children’s responses to the PMSSW have provided a rich picture of the way children change over their first year of formal schooling.

7.2 Associations between the Pictorial Measure of School Stress and Wellbeing and other adjustment measures

This section of the results will focus on bivariate correlation analyses that were used to examine the associations between children’s scores on the PMSSW and teacher, parent and child ratings of school adjustment and interpersonal relationship outcomes (See Chapter 6). Four summary scores for the PMSSW were selected from analyses: feelings about school scenarios, share feelings with teacher, and scores for the constructive and school-related solutions. Children’s total scores for their feelings about school, whether or not they would share their feelings with their teacher, and their constructive or school-related coping strategies were assessed against teacher ratings of adjustment and the teacher-child relationship, and child self-reports of school liking and avoidance.

Teachers ratings included five subscales from the TRSSA (self-directedness, cooperative participation, school liking, school avoidance and comfort with teacher) and two subscales from the STRS (closeness and conflict). Parent ratings of children’s adjustment and competence were also included. Further, child-rated school liking and school avoidance, as measured by the School Feelings Questionnaire, was included in analyses.

7.2.1 PMSSW Scores by Teacher and Parent Ratings (Time 1)

Table 7.6 presents bivariate correlations between the four PMSSW measures and each of the teacher and parent ratings of school adjustment and interpersonal relationships for Time 1.

**PMSSW Feelings about School Scenarios**

Correlation coefficients presented in Table 7.6 (Column 1), showed little correspondence between how children felt about school scenarios and teachers’ ratings of children's school adjustment or their relationship with the teacher. Similarly, there was little evidence that parents’ ratings of children’s school adjustment or behavioural competence correlated with how children felt about school. The lack of accord between child perceptions and teachers’ ratings of how children are adjusting to school suggests
that the PMSSW may be eliciting a more specific indication of how children are feeling about school than teachers are able to observe in class.

**PMSSW Share Feelings with Teacher**

Results presented in Table 7.6 (Column 2) showed that children’s total scores for share feelings with their teacher were not significantly correlated with any of the teacher-rated adjustment outcomes at the beginning of the year. There was a very slight trend, however, for share feelings with the teacher to be correlated with teachers’ ratings on comfort with the teacher, $r (96) = .16, p = .11$. Share feelings with the teacher was also correlated with parents’ ratings of their child’s adjustment to school, $r (88) = .25, p < .05$.

It was evident from these results that children’s scores on share feelings with the teacher were matched to some degree with teachers’ ratings of their relationship with the child and parents’ impressions of how well the child had adjusted to school.
Coping Strategies: Solutions

Results presented in Table 7.6 (Columns 3 and 4) indicated a trend for children who used more school-related coping strategies to be rated by teachers as higher on self-directedness, \( r (96) = .18, p < .10 \). Children who rely on school-related coping strategies early in the year may be more aware of the school rules and routines and to use this knowledge to anticipate what might happen next in the school day. Children who are rated by their teachers as being self-directed in their behaviour toward classroom activities may also show evidence of an understanding of the routines of school. Children’s use of constructive or school-related coping strategies was not related to teachers’ ratings of child adjustment or interpersonal relationships, but use of constructive solutions was slightly associated with higher competence ratings by parents, \( r (87) = -.18, p < .10 \).

7.2.2 PMSSW Scores by Teacher, Parent and Child Ratings (Time 2)

Table 7.7 presents intercorrelations between the four PMSSW measures and teacher, parent and child ratings of school adjustment and interpersonal relationships at the end of the kindergarten year.

PMSSW Feelings about School Scenarios

Results presented in Table 7.7 (Column 1) showed a similar lack of correspondence between teachers’ and parents’ ratings and how children feel about school, as was noted for Time 1.

There was a tendency for positive feelings about school scenarios to be associated with child-rated school liking, but this did not achieve even a marginal level of significance, \( r (95) = .16, p > .10 \). These results suggest that the PMSSW is tapping different constructs to those measured by the School Feelings Questionnaire. The PMSSW may not be as much a measure of school adjustment as it is a measure of how children feel about school and the demands associated with different school situations. The lack of congruence between these measures might be due to the fact that the Teacher Rating Scale of School Adjustment asks teachers to rate children’s behavioural and relational adjustment to school, whereas the PMSSW provides an assessment of how children are feeling during the process of adjusting to school.
Table 7.7: Intercorrelations between PMSSW and other adjustment measures at Time 2

<table>
<thead>
<tr>
<th>Time 2</th>
<th>Feelings about School Scenarios</th>
<th>Share feelings with Teacher</th>
<th>Constructive Solutions</th>
<th>Sch. related Solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Teacher</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Cooperative participation</td>
<td>-.06</td>
<td>-.06</td>
<td>.19†</td>
<td>.05</td>
</tr>
<tr>
<td>2. Self-directedness</td>
<td>-.08</td>
<td>-.14</td>
<td>.19†</td>
<td>.11</td>
</tr>
<tr>
<td>3. School liking</td>
<td>-.09</td>
<td>-.00</td>
<td>.09</td>
<td>.12</td>
</tr>
<tr>
<td>4. School avoidance</td>
<td>.01</td>
<td>-.16</td>
<td>-.01</td>
<td>-.07</td>
</tr>
<tr>
<td>5. Comfort with teacher</td>
<td>-.10</td>
<td>.01</td>
<td>.06</td>
<td>-.03</td>
</tr>
<tr>
<td>6. Conflict</td>
<td>.13</td>
<td>.01</td>
<td>-.13</td>
<td>-.02</td>
</tr>
<tr>
<td>7. Closeness</td>
<td>-.14</td>
<td>-.07</td>
<td>-.02</td>
<td>.07</td>
</tr>
<tr>
<td>8. Dependency</td>
<td>-.00</td>
<td>-.00</td>
<td>.06</td>
<td>-.16</td>
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<tr>
<td><strong>Parent</strong></td>
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<td></td>
</tr>
<tr>
<td>9. Parent-rated adjustment (Time2)</td>
<td>-.15</td>
<td>.18</td>
<td>.14</td>
<td>-.08</td>
</tr>
<tr>
<td><strong>Child</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. School liking</td>
<td>.16</td>
<td>.20*</td>
<td>.19†</td>
<td>.00</td>
</tr>
<tr>
<td>12. School avoidance</td>
<td>.00</td>
<td>.01</td>
<td>-.14</td>
<td>.01</td>
</tr>
</tbody>
</table>

† Correlation is significant at the .10 level
* Correlation is significant at the .05 level

**PMSSW Share Feeling with the Teacher**

Results presented in Table 7.7 (Column 2) showed a weak trend for share feelings with their teacher to be associated with teachers’ ratings of school avoidance, \( r (96) = -.16, p > .10 \). There were no other associations with teachers’ ratings of comfort, conflict or closeness in the teacher-child relationship. This meant that children who said they would want to share their feelings with the teacher were no more likely to be rated by the teacher as having higher levels of comfort, and lower levels of conflict in the teacher-child relationship. These results suggest that the PMSSW may be tapping a different aspect of children’s relations with their teacher. The PMSSW scenarios related to what children want to do or think is expected of them, rather than how much comfort, closeness or conflict they perceive is in their relationship with the teacher.

Results for parent-rated and child-rated outcomes were more encouraging. Children’s scores for share feelings with the teacher were correlated with parents ratings of adjustment to school, \( r (77) = .18, p > .10 \). Also, children who were more positive
about school (PMSSW) had higher levels of school liking, measured on the SFQ, at the end of the year, \( r (95) = .20, p < .05 \).

**Coping Strategies: Solutions**

Results in Table 7.7 (Columns 3 and 4) showed that children who used more constructive coping strategies were more likely to be rated by teachers as showing more cooperative participation, \( r (96) = .19, p < .10 \), and more self-directedness, \( r (96) = .19, p < .10 \), in class. Recalling that the use of constructive solutions had increased at Time 2, these results show a general trend for these children to be better adjusted to school.

Constructive coping strategies were also linked to child-rated school liking, \( r (95) = .19, p < .10 \), showing that children who gave personal solutions to situations, also reported liking school more at the end of the year. However, the use of school-related coping strategies did not indicate any sense of an overall positive adjustment to school.

Results also showed that parent ratings of adjustment were not significantly correlated with either constructive or school-related coping. These findings point to a combination of positive aspects of adjustment to the learning and personal domains of adjustment to school.

### 7.3 Summary

The PMSSW has provided considerable data on children’s emotional and social adjustment to school at both the individual and group level. Designing the PMSSW as a structured, yet open-ended interview, meant that children’s responses to specific school situations could be described in detail by children and used to examine three main facets of school adjustment from the child’s perspective: children’s feelings about different school scenarios, their views for sharing their feelings with the teacher, and the coping strategies they would draw on to manage these feelings.

Although most children reported positive feelings about school scenarios, a number of children also reported negative feelings about school scenarios. Scenarios which elicited the most negative feelings at the beginning and end of the year were Scenario 5 (Going to the toilet by themselves) and Scenario 9 (Watching other children play in the sandpit). The number of children who reported negative feelings about these two scenarios actually increased over the school year, indicating that more experience in these types of situations, and presumably more social and emotional maturity on the child’s part, did not prevent more children feeling negative about being in these types of
scenarios. The reasons children gave for their feelings at the beginning and end of the school year offered an important insight into why this might be the case. Children’s reasons for negative feelings about going to the toilet by themselves changed from being largely personal at the beginning of the year, to more focused on relationships with peers at the end of the year. A similar finding was evident for children’s negative feelings about Scenario 9 (Watching other children play in the sandpit). Children were more likely to mention relationship reasons for their feelings at the end of the year than at the beginning. These results suggest that at the beginning of the year school children rely more on their confidence in routine and social situations, and their ability to regulate their emotions, whereas at the end of the year, children’s social competence and perceived peer relationships take more precedence.

The PMSSW included three broad groups of school scenarios. Each of these tapped different aspects of children’s perspectives and ways of understanding the school experience. Out-of-class scenarios elicited personal or child-related responses, which focused on personal characteristics such as confidence and independence. Peer-related scenarios tended to generate understandings of social competence; however, these scenarios also measured children’s self-confidence in social situations. In-class scenarios were more likely to elicit children’s understandings of school-related demands. In particular, Scenario 4 (Sitting on floor listening to teacher) and Scenario 6 (Doing work at desk) generated a focus on school-related responses. This indicated that these in-class scenarios in the PMSSW were measuring what they intended to measure, and provided some construct validity for the measure. Scenario 3 (Speaking in front of the class) also included many personal reasons for children’s feelings indicating that self-confidence may have been a contributing factor in children’s feelings about telling news.

Tests of the association between the PMSSW measures and ratings by the teachers and parents of adjustment outcomes of self-directedness, cooperative participation, school liking, the teacher-child relationship and school adjustment, showed that although some of the PMSSW variables corresponded with teacher and parent ratings, for the most part, PMSSW and teacher or parent ratings did not accord. It was anticipated that children who had more positive feelings at the end of the school year, would be more likely to be rated by teachers as more self-directed and more cooperative in their participation with other children. It was also anticipated that children would have higher scores on school liking and lower scores on school
avoidance. However, this was found to be not the case using the PMMSW. Children’s feelings about school scenarios as rated by the PMSSW did not achieve a statistically significant correlation with teacher-rated school adjustment items. However meaningful links were noted between PMSSW scores and children’s own ratings of school liking.

Responses to Question 5 generated more consistent findings. There was an association between children’s use of constructive coping strategies and teacher and parent ratings of adjustment. Children who gave more constructive coping strategies were more likely to be rated by their parents as being more competent at home and by their teachers and showing more cooperative participation and self-directedness in class. Constructive solutions were also related to school liking as reported by children. These results indicate a development of children’s social and emotional competence over the first year of school.

School-related solutions were used by many children at the beginning of the year, however by the end of the year, this strategy was not as common and more children were drawing on personal or intrinsic resources to meet the demands of school situations. The significant negative relationship between children’s constructive solutions and school-related solutions at the end of the year illustrates that children either use one strategy or the other.

Self-directedness at the beginning of the year translated to understanding the routines of the school and using those routines as coping strategies for school situations. Self-directedness at the end of the year though, translated to children being confident participants in their environment and drawing on this confidence to respond to stressful and non-stressful school situations in a constructive way. At the end of the year, children who reported liking school more were more likely to report using constructive coping strategies in everyday school situations.

Other results indicated that there was a trend for children’s responses on the PMSSW to accord with the School Feelings Questionnaire, despite the fact that the PMSSW uses a different approach to eliciting children’s feelings about school and their teacher. The lack of association between what significant adults report about children’s adjustment to school and what children themselves report distinguishes the PMSSW as a measure that may be most useful in providing a qualitative picture of individual children’s perspectives on their adjustment to school. Results presented in this chapter have offered further support for the internal consistency of the PMSSW, as scenarios proved to be measuring the constructs proposed in Chapter 4: Design and Development.
of the PMSSW. These constructs however, were not the same as those that teacher and parent measures of adjustment were tapping; the relationship between the PMSSW and other adjustment measures was weak.

The following chapter aims to further the examination of adjustment over time by firstly testing individual components of the process model of school adjustment and then testing the predictive effects of all components of the model on two main adjustment outcomes.
8 TESTING THE PROCESS MODEL OF CHILD ADJUSTMENT

The purpose of this chapter is to test the process model of child adjustment - outlined in Chapter 3 of the thesis, and presented below in Figure 8.1. The model outlines key domains of influence on children’s experience of the first year of school. It places children at the centre of the adjustment process and recognises that they are individuals who operate within a number of systems or contexts. Six domains are included in the model: characteristics of the child, characteristics of the family, the child’s interpersonal relationships in school, the child’s adjustment to personal, interpersonal and institutional aspects of school, the nature of the school and classroom, and the context of the wider community. The combined effects of these components are of interest in this chapter. Multiple regression analyses will be used to test the predictive effects of certain aspects of the model on child adjustment and interpersonal relationship outcomes. Analyses and results will be presented in two main sections.

The first section focuses on change over time in children’s adjustment and interpersonal relationships at school. Multiple regression analyses are used to test the effects of child and family factors on early interpersonal and child adjustment outcomes. Similar regression analyses are also used to examine predictors of later interpersonal and child adjustment outcomes. These analyses include classroom quality as well as the relevant early measure of interpersonal relationship or adjustment scores as predictors.

The second section focuses on the full model. It tests the unique and combined effects of each domain (child and family characteristics, child adjustment, interpersonal relationships, and classroom environment) on two independent outcomes: assessed academic achievement and child-rated school liking.

Five domains identified in the proposed model of school adjustment were included in the analyses. The specific variables which were selected to represent each domain in the model and will be tested in this chapter have been chosen based on the results of bivariate correlation analyses (reported in Chapter 6).

Selection also took account of methodological concerns about teachers rating measures of both adjustment and relationship quality. This concern has been identified previously in the literature (e.g., NICHD ECCRN, 2003; Howes, 2000), as causing an increase in effect size or correlation coefficient when some teacher-rated variables
Figure 8.1: Process Model of Child Adjustment, with Domains and Selected Variables

**Early Int. Relationships**

*Child*
- Share feelings with teacher

*Teacher*
- Conflict
- Closeness

**Later Int. Relationships**

*Child*
- Share feelings with teacher

*Teacher*
- Conflict
- Closeness

**Early School Adjustment**

*Child*
- Feelings about school scenarios

**Child & Family**

*Demographics*
- Age
- Gender

*Language Ability*
- PPVT

*Socio-emotional characteristics*
- Temperament
- Competence

**Later School Adjustment**

*Child*
- Feelings about school scenarios
- School liking

**Social factors**
- Social connections

**Independent Assessment**

*Who Am I?*

**Teacher**
- Self-directedness
- Coop. Participation
- School Liking

**Parent**
- Child adjustment

**Classroom Context**

*Classroom climate*
- Classroom quality
are tested as predictors of other teacher-rated variables. A similar concern occurred for 
parents’ ratings of temperament and competent behaviour used to predict parent rated 
school adjustment. To avoid this concern, no teacher-rated measure was included as a 
predictor of another teacher-rated measure assessed at the same time of the year. 
Teacher-rated measures assessed at Time 1 were used to predict to Time 2 teacher-rated 
measures to examine over-time effects. Results including parent ratings which are 
affected by this issue will be examined with caution.

**School Adjustment and Interpersonal Relationship Outcomes**

*Interpersonal relationships.* Interpersonal relationships between the child and 
his/her teacher were measured from the child’s perspective as well as the teachers’ 
perspective at both the beginning and end of the year. Child measures were based on 
children’s responses to Question 3 of the Pictorial Measure of School Stress and 
Wellbeing (PMSSW), “Would the child in the picture want to share their feelings with 
the teacher?” Higher scores on this measure indicated a closer teacher-child relationship 
from the child’s perspective. Teacher measures are based on subscale scores on the 
Student Teacher Relationship Scale (STRS) (Pianta, 2001). Closeness and conflict 
represented positive and negative aspects of the teacher-child relationship.

*School adjustment.* Multiple perspectives on children’s adjustment to the school 
and classroom were collected at the beginning and end of the year. Child measures were 
based on responses to Question 1 of the PMSSW, “how does the child feel?” Higher 
scores represented a more positive response to school scenarios. Child-rated school 
liking, measured by the School Feelings Questionnaire, and based on Ladd & Price’s 
(1987) School Liking and Avoidance Scale, was also included at the end of the year.

Teacher measures included ratings of the child’s self-directedness and 
cooperative participation from the Teacher Rating Scale of School Adjustment 
(TRSSA) (Birch & Ladd, 1997). These measures assessed children’s approach to 
learning (self-directedness) and social adjustment in the classroom (cooperative 
participation). Parent-rated adjustment was based on a subset of questions from Ladd 

A further measure of academic adjustment was included at the end of the school 
year, based on interviewer assessment of early literacy and numeracy, using the Who 
Am I? (de Lemos & Doig, 1999). The Who Am I? is a standardised test that was 
developed specifically for the early years of school. These five measures, which
included social-emotional and academic aspects of adjustment, were selected in order to provide a holistic impression of the child’s experiences in their first year of school.

**Predicting to Socio-emotional and Academic Aspects of Adjustment**

*Child and family characteristics.* Child demographic factors of age and gender were included in the model as potential predictors of school adjustment and interpersonal relationship outcomes. Child language ability, which was measured at the beginning of the year using the Peabody Picture Vocabulary Test (Dunn & Dunn, 1997), was selected as a representative measure of family influences and social experiences prior to school, and was an important predictor of school adjustment. The connection between children’s language ability and maternal education has been previously identified by Denton and Reaney (2000, cited in National Association of Early Childhood Specialists in State Departments of Education, 2001). Similarly, language ability has been associated with an array of family socioeconomic factors, such as mothers’ and fathers’ parenting behaviour and outcomes at school, such as children’s academic achievement (Ladd et al., 1999; NICHD Early Child Care Research Network & Duncan, 2003). Further support for using children’s language ability to represent family characteristics such as maternal education was provided by preliminary simple regression analysis which showed that maternal education was a predictor of children’s PPVT scores (β = .26).

Child socio-emotional characteristics, including parent-rated temperament (total easy/difficult score) and competence which measured children’s self-regulation, prosocial skills and tension-management, were also included in the model. Higher scores on both subscales indicated more negative behaviour. For example, on the temperament subscale a higher score indicated a more difficult temperament, and on the competence subscale a higher score indicated less competent behaviour. It was expected that children with a more difficult temperament (and less behaviour competence) would be likely to have difficulties adjusting to the social and emotional aspects of school. Children’s social connections at school, as assessed by the number of peers they knew who were attending the same school, and having siblings at the same school, was also included as a predictor of child adjustment and interpersonal relationship outcomes.

*Classroom quality.* Children’s adjustment and interpersonal relationships were expected to develop over time and to be influenced by the nature of the classroom context. Classroom quality was measured using the Classroom Observation Instrument – Kindergarten which generated a total classroom climate score made up of ratings on three subscales: Classroom management, social climate and instruction/pedagogy.
8.1.1 Analysis Plan

A series of hierarchical regression analyses were undertaken to test the predictive effects of child and family characteristics on early interpersonal relationship and child adjustment outcomes.

The order of entry was designed to assess the unique and combined effects of child demographic, cognitive and personality characteristics, and social connections. In order to deal with missing questionnaire data from parents, which was only available for between 82% \((n = 86)\) and 86% \((n = 90)\) of the sample, depending on which questions parents’ did not complete, regression analyses were conducted in two stages. The first stage tested the effects of child demographics and language ability using the full sample \((N = 101)\). Step one of the model entered demographic variables - child’s age and gender. Step two of the model entered the child’s score on the PPVT, which is the measure of child language ability.

The second stage of analysis tested the additional effects of child temperament, competence, and social connections using the reduced sample for whom parent data were available \((n = 86 - 90)\). After including child demographics and language ability, Step three of the model entered child social-emotional characteristics and Step four entered children’s social connections on entry to school.

1. Child demographic factors – age and gender
2. Language ability – PPVT
3. Child social-emotional characteristics – temperament and competence
4. Children’s social connections at school – social connections

A similar process was used to predict later interpersonal relationship and child adjustment outcomes, with the additional inclusion of classroom quality as the Time 1 outcome variable. Later regression tests only used one model \((n = 80)\) with a reduced sample size, again due to fewer parent participants at the end of the year.

8.2 Interpersonal Relationships

8.2.1 Early Interpersonal Relationships

Results are presented for hierarchical regression analyses predicting three measures of early child-teacher interpersonal relationship quality: teacher-rated conflict, teacher-rated closeness, and child reported share feelings with the teacher. The same analytical procedure was used for each outcome measure.
Conflict in the Teacher-child Relationship

Results for teacher-rated conflict are presented in Table 8.1. Step 1, based on a sample size of 99 children showed that child demographic factors accounted for 5.9% of the variance, $p < .10$. Child age was not a significant predictor, suggesting that older children were no more likely to have conflict with their teachers than younger children. Child gender was a significant predictor, $\beta = .22$, $p < .05$, indicating that relationships with boys were rated as more likely to have conflict than relationships with girls. The addition at Step 2 of child language ability accounted for 6.7% of the variance. The beta coefficient for this variable was significant ($\beta = -.27$, $p < .01$) and indicated that children with lower PPVT scores had slightly higher levels of conflict in their relationship with the teacher. Once PPVT was included in the model, gender was no longer a significant predictor of conflict ($\beta = .15$, $p = \text{n.s.}$).

The next step of the model entered parent variables and added social-emotional characteristics which explained only 2.5% of the variance in the model. Neither measure, temperament nor competence, added significantly to the model. The addition of social connections was similarly insignificant, accounting for 1.7% of the overall variance of the model.

Table 8.1: Regression analyses testing child and family predictors of teacher-child conflict at Time 1

<table>
<thead>
<tr>
<th></th>
<th>$\beta$</th>
<th>$p$</th>
<th>$\Delta R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Model 1. ($N = 99$)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 1. Child Demographics</td>
<td></td>
<td></td>
<td>.059†</td>
</tr>
<tr>
<td>Age</td>
<td>-.11</td>
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<td></td>
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<tr>
<td>Gender</td>
<td>.22</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td><strong>Step 2. Language Ability</strong></td>
<td></td>
<td></td>
<td>.067**</td>
</tr>
<tr>
<td>PPVT</td>
<td>-.27</td>
<td>**</td>
<td></td>
</tr>
<tr>
<td><strong>Model 2. ($N = 80$)</strong></td>
<td></td>
<td></td>
<td>.025</td>
</tr>
<tr>
<td>Step 3. Social-emotional Characteristics</td>
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<tr>
<td>Temperament</td>
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</tr>
<tr>
<td>Competence</td>
<td>-.05</td>
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<td><strong>Step 4. Social connections</strong></td>
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</tr>
<tr>
<td>Social connections</td>
<td>.14</td>
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</tr>
</tbody>
</table>

* Correlation is significant at the .05 level
** Correlation is significant at the .01 level

Model 1: Overall $R^2 (3, 96) = .13$, $p < .01$
Model 2: Overall $R^2 (6, 74) = .18$, $p < .05$
Examining the model at the individual predictor level indicated children’s language ability was the most significant predictor of conflict in the teacher-child relationship.

**Closeness in the teacher-child relationship**

Closeness, as rated by the teacher, was used as the outcome variable to test the predictive effects of child and family factors on children’s positive relationships with their teachers. Step 1, based on a sample size of 99 children, showed that child demographic factors accounted for 6.1% of the variance for closeness in the teacher-child relationship. Gender was the significant contributing variable in this case with a beta coefficient of -.25 ($p < .05$). This indicated that girls were more likely to be rated by teachers as having closer relationships than boys. Step 2 entered children’s language ability which only explained 0.3% of closeness.

Step 3 of the model showed that children’s social-emotional characteristics explained an additional 5.4% of the variance of the model, at a trend level of significance. Competence was slightly associated with closeness ($\beta = .22, p < .10$), indicating that children who were rated as having closer teacher-child relationships, were slightly more likely to be rated by parents as displaying less competent behaviours. That is, children who were less self-regulated and who had lower rates of prosocial behaviour had closer relationships with teachers. This finding is difficult to explain, as the opposite would be expected.

Following this, children’s social connections were added to the model at Step 4 and explained 4.0% of the variance of closeness ($\beta = .22, p < .10$). This indicated that children who knew more peers before starting school or who had a sibling at the school already were somewhat more likely to be rated as having a close teacher-child relationship.

Examining the model at the individual predictor level showed that gender, competent behaviour and social connections contributed significantly to explaining the variance of closeness in the teacher-child relationship.
Table 8.2: Regression analyses testing child and family predictors of teacher-child closeness at Time 1

<table>
<thead>
<tr>
<th>Model 1. (N = 99)</th>
<th>( \beta )</th>
<th>( p )</th>
<th>( \Delta R^2 )</th>
</tr>
</thead>
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<tr>
<td><strong>Step 1. Child Demographics</strong></td>
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</tr>
<tr>
<td>Age</td>
<td>.01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>-.25</td>
<td>*</td>
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</table>

<table>
<thead>
<tr>
<th>Model 2. (N = 80)</th>
<th>( \beta )</th>
<th>( p )</th>
<th>( \Delta R^2 )</th>
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<tbody>
<tr>
<td><strong>Step 2. Language Ability</strong></td>
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<td></td>
<td>.003</td>
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<tr>
<td>PPVT</td>
<td>.05</td>
<td></td>
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<thead>
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<th><strong>Step 3. Social-emotional Characteristics</strong></th>
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<th>( p )</th>
<th>( \Delta R^2 )</th>
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</thead>
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<td>Temperament</td>
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<tr>
<td>Competence</td>
<td>.22</td>
<td>†</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th><strong>Step 4. Social connections</strong></th>
<th>( \beta )</th>
<th>( p )</th>
<th>( \Delta R^2 )</th>
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</thead>
<tbody>
<tr>
<td>Social connections</td>
<td>.22</td>
<td>†</td>
<td>.040†</td>
</tr>
</tbody>
</table>

† Correlation is significant at the .10 level  
* Correlation is significant at the .05 level  
Model 1: Overall \( R^2 (3, 96) = .06, (n.s.) \)  
Model 2: Overall \( R^2 (6, 74) = .20, p < .01. \)

**Children’s Perspectives of the Teacher-child Relationship**

Children’s share feelings responses on the PMSSW were used as an outcome variable to measure children’s perspectives of the teacher-child relationship at Time 1.  
Step 1 was based on a sample of 100 children and showed that child demographic factors accounted for 0.2% of the variance, which was not a significant amount of children’s self-reported responses to the extent to which they would share their feelings with the teacher. Step 2 entered children’s language ability into the model and this variable explained only 0.7% additional variance.
Table 8.3: Regression analyses testing child and family predictors of child share feelings with the teacher at Time 1

<table>
<thead>
<tr>
<th>Step</th>
<th>Predictor</th>
<th>β</th>
<th>p</th>
<th>ΔR²</th>
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</thead>
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<td>Step 1. Child Demographics</td>
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<tr>
<td>Age</td>
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<td>.002</td>
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<tr>
<td>Gender</td>
<td>-.04</td>
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<tr>
<td>Step 2. Language Ability</td>
<td></td>
<td></td>
<td>.007</td>
<td></td>
</tr>
<tr>
<td>PPVT</td>
<td>.09</td>
<td></td>
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<tr>
<td>Step 3. Social-emotional Characteristics</td>
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<td>Temperament</td>
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<td>*</td>
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<td></td>
</tr>
<tr>
<td>Competence</td>
<td>.09</td>
<td></td>
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<tr>
<td>Step 4. Social connections</td>
<td></td>
<td>.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Correlation is significant at the .10 level
†Correlation is significant at the .05 level
Model 1: Overall R² (3, 97) = .01 (n.s)
Model 2: Overall R² (6, 75) = .06 (n.s)

Step 3 showed that children’s social-emotional development accounted for 5.9% of the variance of children’s perspectives of the teacher-child relationship. Temperament was a significant predictor of the extent to which children would share their feelings with the teacher (β = -.25, p < .05). This meant that children with an easier temperament were slightly more likely to say they would share their feelings with the teacher than children with a more difficult temperament. Step 4 showed that social connections accounted for no additional variance (0.0%).

Examining the model at an individual predictor level indicated that temperament was the only significant factor contributing to children’s scores for share feelings with the teacher.

8.2.2 Later Interpersonal Relationships

The results presented in this section included two additional steps in the regression analyses predicting the three measures of interpersonal relationship quality. Step five of the model entered classroom quality scores, as assessed by classroom observations and step six entered the early outcome variable of the same measure.
Conflict in the teacher-child relationship

Conflict, as rated by the teacher, was used as the outcome variable to test the predictive effects of child and family factors on children’s positive relationships with their teachers at the end of the year. Results presented in Table 8.4 showed that child demographic variables, entered at Step 1 and based on a sample of 80 children, explained 7.5% of the variance for conflict in the teacher-child relationship at the end of the year. Children’s age had no effect, but gender had a significant predictive impact on teacher-rated conflict in the relationship (β = .27, \( p < .05 \)). This was a slightly higher beta coefficient that that found for Time 1 conflict. Step 2 entered children’s language ability, measured at the beginning of the year, which accounted for 7.3% of the variance and was also a significant contributor of conflict in the teacher-child relationship at the end of the year (β = -.28, \( p < .05 \)). This meant that children who had higher levels of

Table 8.4: Regression analyses testing predictors of conflict in the teacher-child relationship at Time 2

<table>
<thead>
<tr>
<th>Model 1. (( N = 80 ))</th>
<th>( \beta )</th>
<th>( p )</th>
<th>( \Delta R^2 )</th>
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<tbody>
<tr>
<td><strong>Step 1. Child Demographics</strong></td>
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<tr>
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<td>.075*</td>
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<tr>
<td>Gender</td>
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<td>*</td>
<td></td>
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<tr>
<td><strong>Step 2. Language Ability</strong></td>
<td></td>
<td></td>
<td>.073*</td>
</tr>
<tr>
<td>PPVT</td>
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<td>*</td>
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<tr>
<td><strong>Step 3. Social-emotional Characteristics</strong></td>
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<td>Temperament</td>
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<td><strong>Step 4. Social connections</strong></td>
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<td>Social connections</td>
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<tr>
<td><strong>Step 5. Classroom Quality</strong></td>
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<td>Classroom climate</td>
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<tr>
<td><strong>Step 6. Time 1 Outcome</strong></td>
<td></td>
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<td>.276***</td>
</tr>
<tr>
<td>Conflict</td>
<td>.58</td>
<td>***</td>
<td></td>
</tr>
</tbody>
</table>

† Correlation is significant at the .10 level
* Correlation is significant at the .05 level
*** Correlation is significant at the .001 level

Overall \( R^2 (8, 72) = .48, p < .001 \).
language ability at the beginning of kindergarten were less likely to have conflict in the
teacher-child relationship at the end of kindergarten.

Step 3 showed children’s social-emotional characteristics explained 5.2% of the
variance in the model, which was marginally significant, with temperament being the
contributing factor in this instance ($\beta = .21, p < .10$). Step 4 of the model showed that
social connections did not explain any additional variance. Step 5 showed classroom
quality accounted for 0.8% of the variance of conflict, which was again insignificant.

The final step of the model showed that conflict at Time 1 accounted for an
additional 27.6% of the variance of conflict at Time 2 ($\beta = .58, p < .000$). This meant
that children who were reported to have high levels of conflict in the teacher-child
relationship at the beginning of the year were also very likely to have high levels of
conflict in the teacher-child relationship at the end of the year.

At the end of the year, as well as gender and PPVT contributing significantly to
the variance of conflict, which they also did at the beginning of the year, temperament
also showed a trend toward significance with a beta of .21 at Time 2. The smaller
sample size at the beginning of the year and the fact that conflict at Time 1 was added to
the later model, could have affected the significance of temperament as a predictor
variable.

Closeness in the Teacher-child Relationship

Closeness, as rated by the teacher, was used as the outcome variable to test the
predictive effects of child and family factors on children’s positive relationships with
their teachers at the end of the year. Results presented in Table 8.5 showed at Step 1
child demographic variables accounted for 11.7% of the variance of closeness at the end
of the year. Gender was a significant contributing factor ($\beta = -.34, p < .01$), indicating
that girls were rated by teachers as having closer teacher-child relationships. Step 2
showed children’s language ability added minimally (0.5%) to the explained variance
for closeness in the teacher-child relationship.

Step 3 showed that social-emotional characteristics explained only 3.8% of the
overall variance, which was not significant. Step 4 showed that social connections
accounted for only 0.3% more variance in the model and Step 5 indicated that
classroom quality explained only a further 0.4% of the variance of closeness.
The final step of the model included closeness at Time 1, which accounted for 25.7% of
the variance of closeness at Time 2 ($\beta = .58, p < .000$). This meant that children who
began school with a close relationship with their teacher were more likely to still have a
Table 8.5: Regression analyses testing predictors of closeness in the teacher-child relationship at Time 2

<table>
<thead>
<tr>
<th></th>
<th>β</th>
<th>p</th>
<th>ΔR²</th>
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<tr>
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<td>Step 2. Language Ability</td>
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<td>Step 6. Time 1 Outcome</td>
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<td>.257***</td>
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<tr>
<td>Closeness</td>
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<td>***</td>
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</tbody>
</table>

** Correlation is significant at the .01 level
*** Correlation is significant at the .001 level
Overall R² (8, 72) = .42, p < .001.

close relationship at the end of kindergarten. At the end of the year, gender became an even more significant contributor of closeness in the teacher-child relationship, with a higher beta coefficient at Time 2 compared to Time 1. This indicated that girls were rated as having even closer relationships with teachers than boys at the end of the year compared to the beginning of the year. However, children’s competence and social connections no longer contributed to the variance of closeness at Time 2, as they did at the beginning of the year.

Children’s perspectives of the teacher-child relationship

Children’s share feelings responses on the PMSSW were used as an outcome variable to measure children’s perspectives of the teacher-child relationship at Time 2. Results presented in Table 8.6 showed at Step 1 child demographic factors accounted for 4.3%
Table 8.6: Regression analyses testing predictors of children’s perspectives of their relationship with the teacher at Time 2

<table>
<thead>
<tr>
<th>Step</th>
<th>Predictor</th>
<th>β</th>
<th>p</th>
<th>ΔR²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1. (N = 80)</td>
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<td></td>
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<tr>
<td>Step 1. Child Demographics</td>
<td>Age</td>
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<td>†</td>
<td>.043</td>
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<td></td>
<td>Gender</td>
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<tr>
<td>Step 2. Language Ability</td>
<td>PPVT</td>
<td>-.12</td>
<td></td>
<td>.014</td>
</tr>
<tr>
<td>Step 3. Social-emotional Characteristics</td>
<td>Temperament</td>
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<td></td>
<td>.002</td>
</tr>
<tr>
<td></td>
<td>Competence</td>
<td>.05</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 4. Social connections</td>
<td>Social connections</td>
<td>-.08</td>
<td></td>
<td>.006</td>
</tr>
<tr>
<td>Step 5. Classroom Quality</td>
<td>Classroom climate</td>
<td>.03</td>
<td></td>
<td>.001</td>
</tr>
<tr>
<td>Step 6. Time 1 Outcome</td>
<td>Sharing feelings with the teacher</td>
<td>.46</td>
<td>***</td>
<td>.197***</td>
</tr>
</tbody>
</table>

† Correlation is significant at the .10 level
*** Correlation is significant at the .001 level
Overall R² (8, 69) = .26, p < .01.

of the variance of children sharing their feelings with their teacher. While gender did not make a significant contribution to explaining the variance, there was a trend for age to predict children sharing their feelings with the teacher (β = -.21 (p < .10). This indicates that older children were more likely to share their feelings with the teacher more often, which could be for a number of reasons. It is possible that older children have adjusted to the rules and routines of the school better than younger children and thus think they are expected to tell the teacher how they are feeling. It is also possible, that older children were more able to give a classifiable response to this question in the PMSSW. Step 2 showed that children’s language ability only accounted for 1.4% of the variance of whether or not children would share their feelings with the teacher.

Step 3 showed that children’s social-emotional characteristics only accounted for an additional 0.2% of the variance of the model. Similarly insignificant, children’s social connections, entered at Step 4, accounted for 0.6% of the variance. Step 5
indicated that classroom climate only explained a further 0.1% of the variance of this model.

Children would want to share their feelings with the teacher at the beginning of the year explained 19.7% of the variance of whether or not they would share their feelings with the teacher at the end of the year ($\beta = .46, p < .0001$). The beta coefficient provided further support for the significance of this predicting variable, showing that children who wanted to share their feelings about school scenarios with the teacher at the beginning of the year were very likely to want to share their feelings with the teacher at the end of the year.

8.3 Child Adjustment

8.3.1 Early Child Adjustment

Five measures of early child adjustment were tested at the beginning of the year: Teacher-rated self-directedness, cooperative participation and school liking, child reported feelings about school, and parent-rated adjustment. The same analytical procedure was used for each outcome measure, with the order of entry designed to assess the unique and combined effects of child demographics, language ability, socio-emotional characteristics, and social connections.

Child Self-directedness

Self-directedness, as rated by the teacher, was included as a measure of children’s approach to learning. Higher scores indicated more self-directed behaviour, evidenced by children seeking challenges and being confident. Results of the hierarchical regression analysis, presented in Table 8.7, showed that child demographic characteristics, entered at Step 1 and based on a sample of 99 children, accounted for 13.0% of the variance ($p < .001$). The beta coefficients for age and gender were .27 and -.25 respectively, showing older children and girls were significantly more likely to be rated by teachers as showing self-directed behaviours.

Significant additional variance was explained when children’s language ability, measured by PPVT scores at the beginning of the year, was entered at Step 2. Language ability accounted for an additional 29.4% of the variance ($\beta = .56, p < .001$) in self-directedness, providing strong support for the predictive nature of language ability on children’s approach to learning.

Step 3 showed the addition of social-emotional characteristics accounted for a further 3.0% of the variance for self-directedness, which was not statistically significant,
Table 8.7: Regression analyses testing child and family predictors of child self-directedness at Time 1

<table>
<thead>
<tr>
<th>Model 1. (N = 99)</th>
<th>β</th>
<th>p</th>
<th>ΔR²</th>
</tr>
</thead>
<tbody>
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<tr>
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<tr>
<td>Gender</td>
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<td>**</td>
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<td><strong>Step 2. Language Ability</strong></td>
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<td></td>
<td>.294***</td>
</tr>
<tr>
<td>PPVT</td>
<td>.56</td>
<td>***</td>
<td></td>
</tr>
<tr>
<td><strong>Model 2. (N = 80)</strong></td>
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<tr>
<td><strong>Step 3. Social-emotional Characteristics</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temperament</td>
<td>-.18</td>
<td>†</td>
<td></td>
</tr>
<tr>
<td>Competence</td>
<td>.09</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Step 4. Social connections</strong></td>
<td></td>
<td>.11</td>
<td>.010</td>
</tr>
</tbody>
</table>

† Correlation is significant at the .10 level
** Correlation is significant at the .01 level
*** Correlation is significant at the .001 level

Model 1: Overall R² (3, 96) = .42, p < .001.
Model 2: Overall R² (6, 74) = .45, p < .001.

however temperament on its own achieved a marginal level of significance (β = -.18, p < .10). This reflects expectations that children with a less difficult temperament were rated as more self-directed by teachers.

Step 4 showed that social connections accounted for only 1.0% of the overall variance, which was not significant. Examining the model at an individual predictor level, once all variables had been entered into the model, showed the strongest predictor of self-directedness was children’s language ability as measured by the PPVT (β = .44, p < .001). Children with higher scores on the PPVT were more likely to be rated by teachers as showing more self-directed behaviours in class. After accounting for the effects of language ability, age was a significant contributor to self-directedness (β = .37, p < .001), however the effects of gender had decreased (β = -.17, p < .07).

**Child Cooperative Participation**

Cooperative participation, as rated by teachers, provided a measure of how well children were adjusting to the classroom demands of school, for example following the teachers’ instructions. Results, presented in Table 8.8, showed that when entered at Step 1, child demographic characteristics accounted for 16.2% of the variance for cooperative
Table 8.8: Regression analyses testing child and family predictors of child cooperative participation at Time 1

<table>
<thead>
<tr>
<th>Model 1. (N = 99)</th>
<th>β</th>
<th>p</th>
<th>ΔR²</th>
</tr>
</thead>
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<td>Age</td>
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<td></td>
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</tr>
<tr>
<td>Gender</td>
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<td>***</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Model 2. (N = 80)</th>
<th>β</th>
<th>p</th>
<th>ΔR²</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 2. Language Ability</strong></td>
<td></td>
<td></td>
<td>.178***</td>
</tr>
<tr>
<td>PPVT</td>
<td>.44</td>
<td>***</td>
<td></td>
</tr>
</tbody>
</table>

| Model 1: Overall R² (3, 96) = .34, p < .001. |
| Model 2: Overall R² (6, 74) = .39, p < .001. |

participation. The beta coefficients for age and gender were β = .14, n.s., and β = -.38 (p < .0001), respectively, indicating gender was the main variable contributing to the significant amount of variance explained. Significant additional variance was explained when children’s PPVT scores were entered in the model at Step 2. Language ability explained 17.8% of the variance (p < .000) and had a β coefficient of .44.

Step 3 added social-emotional characteristics to the model which explained a further 1.9% of the overall variance of cooperative participation, which was not statistically significant. Further to this, Step 4 showed that the addition of social connections accounted for only 0.6% of the variance.

Examining the model at an individual predictor level showed the strongest predictor of cooperative participation was children’s cognitive ability (β = .36, p <.001). The next most significant predictor was gender (β = -.31, p < .01). Age also played a role in accounting for variance in cooperative participation (β = .23, p < .05). Age became a slightly more significant predictor when children’s academic ability was entered into the model (β = .21, p < .05).
**Teacher-rated School Liking**

Teachers’ ratings of children’s school liking, as measured by the Teacher Rating Scale of School Adjustment, provided a measure of children’s emotional adjustment to school. Results presented in Table 8.9 showed that at Step 1, based on a sample of 99 children, child demographic variables accounted for 4.6% of the overall variance at a marginal level of significance. Gender was the significant contributing factor in this step ($\beta = -.22, p < .05$) indicating that girls were significantly more likely than boys to be rated by teachers as liking school at the beginning of the year.

Step 2 showed that children’s language ability explained 7.8% of the overall variance of school liking ($\beta = .29, p < .01$), indicating that children who had higher levels of receptive vocabulary were more likely to be rated by teachers as liking school.

Step 3 showed that social-emotional characteristics accounted for 6.6% of the variance of feelings about school. Of the two variables, temperament explained a significant amount of the overall variance of school liking ($\beta = -.26, p < .05$). Step 4 showed that social connections added only 0.8% of the variance to the model.

Examining the model

**Table 8.9: Regression analyses testing child and family predictors of teacher-rated school liking at Time 1**

<table>
<thead>
<tr>
<th></th>
<th>$\beta$</th>
<th>$p$</th>
<th>$\Delta R^2$</th>
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</thead>
<tbody>
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<td><strong>Model 1. ($N = 99$)</strong></td>
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</tr>
<tr>
<td>Gender</td>
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<td>*</td>
<td></td>
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<tr>
<td><strong>Step 2. <em>Language Ability</em></strong></td>
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<td></td>
<td>.078**</td>
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<tr>
<td>PPVT</td>
<td>.29</td>
<td>**</td>
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<tr>
<td><strong>Model 2. ($N = 80$)</strong></td>
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</tr>
<tr>
<td>Step 3. <em>Social-emotional Characteristics</em></td>
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</tr>
<tr>
<td>Temperament</td>
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<td>Competence</td>
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<td><strong>Step 4. <em>Social connections</em></strong></td>
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<tr>
<td>Social connections</td>
<td>.10</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

† Correlation is significant at the .10 level
* Correlation is significant at the .05 level
** Correlation is significant at the .01 level

Model 1: Overall $R^2 (3, 96) = .12, p < .01$.
Model 2: Overall $R^2 (6, 74) = .18, p < .05$. 219
at an individual predictor level showed that while children's language ability explained
the most amount of the variance of teacher-rated school liking, children’s temperament
and gender also contributed to the variation in the model.

**Children’s Feelings about School Scenarios**

Children’s self-reported feelings about school scenarios, as measured by the
PMSSW, were used to represent their personal perspectives and emotional adjustment
to school. Results from regression analyses examining the predictive effects of child and
family factors are presented in Table 8.10.

Step 1, based on a sample of 100 children, showed that child demographic
variables of age and gender accounted for 3.3% of the overall variance of children’s
self-reported feelings about school. Individual variable analyses showed the beta
coefficients for age and gender were .14 and .11 respectively, with neither variable
being associated with more positive feelings about school scenarios. There was no
change in variance when language ability was added to the model at Step 2.

Step 3 showed that social-emotional characteristics accounted for an
insignificant 1.2% of the variance of feelings about school. Following this, social
connections, entered at Step 5, explained no additional variance in the model.

Table 8.10: Regression analyses testing child and family predictors of children’s feelings about
school scenarios at Time 1

<table>
<thead>
<tr>
<th>Model</th>
<th>$\beta$</th>
<th>$p$</th>
<th>$\Delta R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Model 1. ($N = 100$)</strong></td>
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<td><strong>Step 1. Child Demographics</strong></td>
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<td>Age</td>
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<td>Gender</td>
<td>.11</td>
<td></td>
<td></td>
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<tr>
<td><strong>Step 2. Language Ability</strong></td>
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<td></td>
<td>.000</td>
</tr>
<tr>
<td>PPVT</td>
<td>.01</td>
<td></td>
<td></td>
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<tr>
<td><strong>Model 2. ($N = 81$)</strong></td>
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<td><strong>Step 3. Social-emotional Characteristics</strong></td>
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<td></td>
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<td><strong>Step 4. Social connections</strong></td>
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<td>.000</td>
</tr>
<tr>
<td>Social connections</td>
<td>.02</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Model 1: Overall $R^2 (3, 97) = .03$ (n.s.).
Model 2: Overall $R^2 (6, 75) = .03$ (n.s.).
Examining the model at an individual predictor level showed that no child or family factors explained a significant amount of the variance of this early school adjustment outcome.

**Parent-rated Child Adjustment**

Parent ratings of child adjustment at the beginning of the year signified children’s degree of school liking. Results presented in Table 8.11 showed that child demographic factors, entered at Step 1 and based on a sample size of 87 children, accounted for 3.8% of the variance of parent-rated adjustment at the beginning of the year, which was an insignificant amount.

Step 2 showed that language ability accounted for an additional 0.8% of the variance of parent-rated adjustment, which was also not a significant amount. Step 3 showed the addition of social-emotional characteristics explained a further 27.0% of the variance, of which temperament was a significant contributing factor ($\beta = -.57$, $p < .001$). As temperament was also rated by parents, it was expected that parents’ adjustment ratings would reflect their ratings of children’s temperament and behaviour.

**Table 8.11: Regression analyses testing child and family predictors of parent-rated adjustment at Time 1**

<table>
<thead>
<tr>
<th></th>
<th>$\beta$</th>
<th>$p$</th>
<th>$\Delta R^2$</th>
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<td>Step 1. <em>Child Demographics</em></td>
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</tr>
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<td>Age</td>
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<td>.008</td>
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<tr>
<td>Gender</td>
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<td>.08</td>
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<td><strong>Step 2. Language Ability</strong></td>
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<td></td>
</tr>
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<td>.008</td>
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<td><strong>Model 2. ($N=82$)</strong></td>
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<tr>
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<td><strong>Step 4. Social connections</strong></td>
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<tr>
<td>Social connections</td>
<td>.22</td>
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<td></td>
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</tbody>
</table>

* Correlation is significant at the .05 level
*** Correlation is significant at the .001 level
Model 1: Overall $R^2 (3, 84) = .05$, (n.s.).
Model 2: Overall $R^2 (6, 76) = .36$, $p < .001$. 
Step 4 showed that the social connections variable explained a significant 4.5% of the variance of the model ($\beta = .22, p < .05$), indicating that children who knew more peers prior to starting school or had siblings attending the same school were more likely to be rated by their parents as well-adjusted to school.

Examining the model at an individual predictor level showed that temperament was the most significant predictor of parent-rated adjustment to school at the beginning of the year. Also making a significant contribution to explaining the variance of parent-rated adjustment was whether children started school with familiar peers. Both of these predictor variables were reported by parents and the fact that significant predictive effects were found may be suggestive of the problematic nature of parents rating both outcome and predictor variables. These results therefore need to be viewed with some caution.

8.3.2 Later Child Adjustment

The results presented in this section included two additional steps on the regression analyses predicting the five of the seven measures of adjustment presented in the adjustment model, excluding the Who Am I? and child-rated school liking, which will be examined in more detail in the next section of this chapter. Step 5 of the model entered classroom observations and Step 6 entered the early outcome variable of the same measure.

**Child Self-directedness**

Child self-directedness was used as the outcome variable at the end of the year to test the predictive effects of child and family factors, classroom quality and early ratings of self-directedness on children’s approach to learning at Time 2. Results presented in Table 8.12 showed that child demographic factors, entered at Step 1 and based on a sample of 80 children, accounted for 14.5% of the variance for self-directedness at the end of the year, with gender being the strongest contributor ($\beta = -.32, p < .01$). Child age also played a role in predicting self-directedness ($\beta = .20, p < .10$), with older children being marginally more likely to be rated by teachers as self-directed learners. Step 2 showed that children’s language ability explained 21.6% of the variance ($\beta = .48, p < .001$). Step 3 indicated that socio-emotional characteristics of the child explained an additional 4.2% of the variance with temperament making a marginally significant contribution ($\beta = -.19, p < .10$). Step 4 showed that social connections explained an additional 2.7% of the variance, ($\beta = .18, p < .10$). This was suggestive that children
Table 8.12: Regression analyses testing predictors of child self-directedness at Time 2

<table>
<thead>
<tr>
<th>Model 1. (N = 80)</th>
<th>( \beta )</th>
<th>( p )</th>
<th>( \Delta R^2 )</th>
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</tr>
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<td>Step 4. Social connections</td>
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<td>Social connections</td>
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<tr>
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<td>Classroom climate</td>
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<tr>
<td>Step 6. Time 1 Outcome</td>
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</tr>
<tr>
<td>Self-directedness</td>
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<td>***</td>
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</tbody>
</table>

† Correlation is significant at the .10 level
** Correlation is significant at the .05 level
*** Correlation is significant at the .01 level
Overall \( R^2 (8, 72) = .55, p < .001. \)

who started school with more familiar peers and possibly siblings who attended the same school, were more likely to be rated as more self-directed in their approach to learning.

Step 5 showed that classroom quality did not contribute to child self-directedness ratings. Step 6 indicated self-directedness at Time 1 explained 11.4% of self-directedness at Time 2 (\( \beta = .45, p < .001 \)). These results indicate that although children’s level of self-directedness measured at the beginning of the year has a large predictive effect on their self-directedness at the end of the year; it is not the biggest factor involved. Accounting for 21.6% of the variance, children’s language ability was the strongest predictor of children’s self-directedness at the end of the year.
**Child Cooperative Participation**

Cooperative participation, as rated by the teacher, was used to represent children’s adjustment to one aspect of the institutional demands of school. Step 1 of the model, based on a sample of 80 children, entered child demographic factors. Age and gender explained 16.4% of the variance of cooperative participation, which was significant. Gender was the main contributor in this case ($\beta = -0.41, p < .001$). This indicates that girls were significantly more likely to be cooperative in their participation with other children at the end of the year.

Step 2 showed that children’s language ability accounted for a significant 14.1% of the overall variance ($\beta = 0.39, p < .001$). This indicated that children who had higher PPVT scores, measured at the beginning of the year, were more likely to be cooperative in the classroom at the end of the year, at least as rated by their teachers.

**Table 8.13: Regression analyses testing predictors of child cooperative participation at Time 2**

<table>
<thead>
<tr>
<th>Model 1. ($N = 80$)</th>
<th>$\beta$</th>
<th>$p$</th>
<th>$\Delta R^2$</th>
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<tbody>
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</tr>
<tr>
<td>Age</td>
<td>-.02</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>-.41</td>
<td>***</td>
<td></td>
</tr>
<tr>
<td>Step 2. <em>Language Ability</em></td>
<td></td>
<td></td>
<td>.141**</td>
</tr>
<tr>
<td>PPVT</td>
<td>.39</td>
<td>***</td>
<td></td>
</tr>
<tr>
<td>Step 3. <em>Social-emotional Characteristics</em></td>
<td></td>
<td></td>
<td>.049†</td>
</tr>
<tr>
<td>Temperament</td>
<td>-.14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Competence</td>
<td>-.16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 4. <em>Social connections</em></td>
<td></td>
<td></td>
<td>.004</td>
</tr>
<tr>
<td>Social connections</td>
<td>.07</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 5. <em>Classroom Quality</em></td>
<td></td>
<td></td>
<td>.019</td>
</tr>
<tr>
<td>Classroom climate</td>
<td>.14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 6. <em>Time 1 Outcome</em></td>
<td></td>
<td></td>
<td>.240**</td>
</tr>
<tr>
<td>Cooperative participation</td>
<td>.63</td>
<td>***</td>
<td></td>
</tr>
</tbody>
</table>

*** Correlation is significant at the .001 level
Overall $R^2 (8,72) = .62, p < .001$. 

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Step 3 showed that social-emotional characteristics of the child explained 4.9% of the variance, which showed a trend toward significance, although individually, neither temperament nor competence made a significant contribution. Following this, children’s social connections were entered at Step 4, explaining 0.4% of the overall variance. Step 5 showed that the quality of the classroom environment accounted for an insignificant 1.9% of the overall variance of cooperative participation.

Step 6 showed that cooperative participation at Time 1 explained a further 24.0% of the variance of and was a significant predictor of cooperative participation at Time 2 (β = .63, p < .001). This indicated that children who were rated high on cooperative participation at the beginning of the year were also very likely to be rated by their teachers as high on cooperative participation at the end of the year.

**Teacher-rated School Liking**

Results for teachers’ ratings of school liking are presented in Table 8.14. Step 1, based on a sample of 80 children, showed that child demographics accounted for 2.2% of the overall variance of school liking at the end of the year. The beta coefficients for age and gender were .14 and .11 respectively, with neither variable being significantly associated with more positive feelings about school scenarios. Step 2 showed that language ability accounted for an additional 3.0% of the variance which was not significant.

Step 3 showed that child social-emotional characteristics accounted for 5.0% of the variance for school liking, with temperament making the larger contribution (β = -.23, p < .10). Step 4 indicated that social connections explained only 0.2% of the additional variance in the model. Classroom climate, entered at Step 5, explained only an additional 1.3% of the variance. The final step of the model showed that teachers’ ratings of school liking at the beginning of the year were highly predictive of their school liking at the end of the year (β = .57, p < .001). This indicated that, from the teachers’ perspective, how children feel about school at the beginning of the year is highly predictive of how they will feel about school at the end of the year. This finding has implications for transition and adjustment research which focuses on children’s initial response to school.

Examining the model at an individual predictor level showed that while temperament made a slight contribution to explaining the variance of children’s emotional adjustment to school, as rated by the teacher, children’s school liking at the beginning of the year was much more likely to predict their school liking at the end of the year.
Table 8.14: Regression analyses testing child and family predictors of teacher-rated school liking at Time 2

<table>
<thead>
<tr>
<th>Model 1. (N = 80)</th>
<th>( \beta )</th>
<th>( p )</th>
<th>( \Delta R^2 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1. Child Demographics</td>
<td></td>
<td></td>
<td>.022</td>
</tr>
<tr>
<td>Age</td>
<td>.07</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>-.13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 2. Language Ability</td>
<td></td>
<td></td>
<td>.030</td>
</tr>
<tr>
<td>PPVT</td>
<td>.18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model 2.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 3. Social-emotional Characteristics</td>
<td></td>
<td></td>
<td>.050</td>
</tr>
<tr>
<td>Temperament</td>
<td>-.23</td>
<td>†</td>
<td></td>
</tr>
<tr>
<td>Competence</td>
<td>-.04</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 4. Social connections</td>
<td></td>
<td></td>
<td>.002</td>
</tr>
<tr>
<td>Social connections</td>
<td>.04</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 5. Classroom Quality</td>
<td></td>
<td></td>
<td>.013</td>
</tr>
<tr>
<td>Classroom climate</td>
<td>-.12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 6. Time 1 Outcome</td>
<td></td>
<td></td>
<td>.262***</td>
</tr>
<tr>
<td>School Liking (teacher-rated)</td>
<td>.57</td>
<td>***</td>
<td></td>
</tr>
</tbody>
</table>

† Correlation is significant at the .10 level
*** Correlation is significant at the .01 level
Overall \( R^2 (8, 72) = .38, p < .001. \)

**Children’s Feelings about School Scenarios**

Children’s self-reported feelings about school scenarios, as measured by the PMSSW, were used to represent their personal perspectives and emotional adjustment to school at the end of the year. Results presented in Table 8.15 showed that child demographic characteristics of age and gender, entered at Step 1 and based on a sample of 77 children, explained only 0.7% of the variance of feelings at the end of the year and did not contribute significantly to the model.

Step 2 showed that language ability explained only 1.5% of the overall variance. Step 3 showed that social-emotional characteristics also accounted for an insignificant amount of variance (2.8%), as did social connections (1.5%) entered at Step 4.
Step 5 indicated that classroom quality also explained an insignificant amount of the variance of feelings about school as measured by the PMSSW (1.4%).

The final step of the model showed that children’s feelings about school at Time 1 did provide a significant indicator of their feelings about school at Time 2. Time 1 feelings about school explained 9.3% of the variance in the model ($\beta = .31$, $p < .01$).

**Table 8.15: Regression analyses testing predictors of children’s personal perspectives of school at Time 2**

<table>
<thead>
<tr>
<th>Model 1. ($N = 77$)</th>
<th>$\beta$</th>
<th>$p$</th>
<th>$\Delta R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1. Child Demographics</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>-.08</td>
<td>.007</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>-.02</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Step 2. Language Ability</strong></td>
<td></td>
<td></td>
<td>.015</td>
</tr>
<tr>
<td>PPVT</td>
<td>.13</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Step 3. Social-emotional Characteristics</strong></td>
<td></td>
<td></td>
<td>.028</td>
</tr>
<tr>
<td>Temperament</td>
<td>.16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Competence</td>
<td>.05</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Step 4. Social connections</strong></td>
<td></td>
<td></td>
<td>.015</td>
</tr>
<tr>
<td>Social connections</td>
<td>-.13</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Step 5. Classroom Quality</strong></td>
<td></td>
<td></td>
<td>.014</td>
</tr>
<tr>
<td>Classroom climate</td>
<td>-.12</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Step 6. Time 1 Outcome</strong></td>
<td></td>
<td></td>
<td>.093**</td>
</tr>
<tr>
<td>Feelings about school (PMSSW)</td>
<td>.31</td>
<td>**</td>
<td></td>
</tr>
</tbody>
</table>

**Correlation is significant at the .01 level**

Overall $R^2 (8, 69) = .17, p < .10.$

**Parent-rated Child Adjustment**

Results presented in Table 8.16, which were based on only 67 children who had complete data, showed that child demographics, entered at Step 1, did not contribute significantly to the model, explaining only 0.3% of the variance. Step 2 showed that child language ability explained 3.5% of the variance. Step 3 showed that child social-emotional characteristics explained 13.4% of the variance of the model with temperament being the primary contributor ($\beta = -.33, p < .01$).
Table 8.16: Regression analyses testing predictors of parent-rated adjustment at Time 2

<table>
<thead>
<tr>
<th>Step</th>
<th>Child and Family Factors</th>
<th>β</th>
<th>p</th>
<th>ΔR²</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Model 1. (N = 67)</td>
<td></td>
<td></td>
<td>.003</td>
</tr>
<tr>
<td>Step 1. Child Demographics</td>
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<td>-.04</td>
<td>.003</td>
<td>.003</td>
</tr>
<tr>
<td>Age</td>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 2. Language Ability</td>
<td></td>
<td>.20</td>
<td></td>
<td>.035</td>
</tr>
<tr>
<td>PPVT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 3. Social-emotional Characteristics</td>
<td></td>
<td>-.33</td>
<td>**</td>
<td>.134**</td>
</tr>
<tr>
<td>Temperament</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Competence</td>
<td></td>
<td>-.17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 4. Social connections</td>
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<td>.11</td>
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<td>.009</td>
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<td>Social connections</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Step 5. Classroom Quality</td>
<td></td>
<td>-.09</td>
<td></td>
<td>.008</td>
</tr>
<tr>
<td>Classroom climate</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Step 6. Time 1 Outcome</td>
<td></td>
<td>.41</td>
<td>**</td>
<td>.106**</td>
</tr>
<tr>
<td>Parent-rated adjustment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

** Correlation is significant at the .01 level
Overall R² (8, 59) = .29, p < .01.

Step 4 indicated that social connections explained 0.9% of the variance of the model, and Step 5 showed that classroom quality only explained 0.8%, both of which were insignificant.

The final step in the model showed that Time 1 parent-rated adjustment was a significant predictor of Time 2 parent-rated adjustment accounting for 10.6% of the variance of the model (β = .41, p < .01). This indicates that children who start the year off as well-adjusted to school, according to their parents, are more likely to remain well-adjusted at the end of kindergarten, according to their parents.

8.3.3 Summary of Findings for Early and Later School Adjustment and Interpersonal Relationships Outcomes

The findings of the above regression analyses testing the predictive effects of child and family factors on separate domains of the adjustment model will be summarised in three parts. Firstly, child and family predictor variables which make a
consistent significant contribution to outcome variables representing adjustment domains will be examined. Secondly, specific adjustment and interpersonal relationship outcomes will be summarised with regard to which variables made a significant contribution at the beginning and end of the year. The change over time between the predictive effects of variables on early and later child adjustment and interpersonal relationship factors will also be summarised. Finally, limitations to the significance and generalisability of the results will be summarised.

**Consistent Predictors of Adjustment and Interpersonal Relationships**

At the beginning of the year the most consistent predictor variables for interpersonal relationship and child adjustment outcomes included gender and language ability. Gender made a significant contribution to two of the three interpersonal relationship outcomes and three of the five adjustment outcomes at Time 1. In all cases, girls were found to have more positive relationships with teachers and more positive social and emotional adjustment outcomes. Language ability made a significant contribution to one of the three interpersonal relationship outcomes and three of the five adjustment outcomes at Time 1. Children with better developed language ability were found to have more positive relationships with teachers and more positive social and emotional adjustment outcomes. There was also a trend for temperament to make a significant contribution to early interpersonal relationship and adjustment outcomes. Temperament was a statistically significant contributor to two of the five early child adjustment outcomes and verged on significance for one other early child adjustment outcome, and one of the three early interpersonal relationship outcomes. These results indicated that there was a trend for children with an easier temperament to have more a positive interpersonal relationship with their teacher, and more positive adjustment to the social and emotional aspects of school.

At the end of the year, gender and language ability were again the most consistent predictors of interpersonal relationship and child adjustment outcomes, however temperament also had a slight predictive effect on a number of outcomes. Gender made a significant contribution to two of the three interpersonal relationship outcomes, and two of the five child adjustment outcomes at Time 2, again indicating that girls were more likely to have positive relationships with teachers and display more positive adjustment outcomes. Language ability made a significant contribution to one of the three interpersonal relationship outcomes and two of the five adjustment outcomes at the end of the year. Results indicated that children with better developed
language ability were more likely to have positive relationships with teachers and more positive adjustment to the social and emotional aspects of school. Temperament was a significant contributor to one of the five child adjustment outcomes at the end of the year, and made a slight contribution to two other adjustment outcomes, and one of the three interpersonal relationship outcomes at Time 2. At the end of the year, the predictive effects of the corresponding Time 1 outcome variables were often the most significant contributor to interpersonal relationship and adjustment outcomes in the model. These results suggest the importance of early positive relationships between teachers and children. They also imply that a successful adjustment to school is reliant on a positive transition to school.

**Predictors of Interpersonal Relationships**

Interpersonal relationship outcomes at the beginning and end of the year were predicted by gender, language ability, age, temperament, competence and social connections. As identified above, all outcomes measured at the end of the year were predicted by their corresponding Time 1 outcome; therefore these will not be examined in this summary. Conflict in the teacher-child relationship was predicted by gender and language ability at the beginning and end of the year. There was also a trend at the end of the year though, for temperament to contribute to conflict, showing that children with a more difficult temperament were slightly more likely to have conflict in the relationship with their teacher. The fact that temperament did not make contribution to explaining the variance of conflict at the beginning of the year suggests that conflict in the teacher-child relationship may be occurring for slightly different reasons at the end of the year compared to the beginning of the year.

Closeness in the teacher-child relationship was predicted by gender, competence and social connections at the beginning of the year, whereas at the end of the year only gender and the corresponding Time 1 outcome variable made a significant contribution. This implies that children’s social support from friends and siblings may carry over to the formation of close relationships with teachers at the beginning of the school year. Over the year however, the influence of these peer networks may diminish as children further develop their social skills and relationships with teachers.

Children’s perspectives of the teacher, as measured by the PMSSW, were predicted by temperament at the beginning of the year. Children with an easier temperament were more likely to report a positive relationship with their teacher at the beginning of the year, which could indicate their ability to adapt to the challenges of the
school environment and develop relationships with others in that environment more easily than children with a difficult temperament. At the end of the year, younger children were slightly more likely to want to share their feelings with the teacher, which could be indicative of their reliance on the teacher rather than a positive relationship. Younger children may not have developed as much autonomy in meeting the challenges of the school environment as their older peers; therefore they may still rely on the teacher for support. This finding was not seen at the beginning of the year as all children are new to the environment and it is possible they all require the support of the teacher.

**Predictors of School Adjustment**

School adjustment outcomes at the beginning and end of the year were predicted by gender, language ability, temperament, age, and social connections. As identified above, all adjustment outcomes measured at the end of the year were significantly predicted by a corresponding Time 1 outcome. Child self-directedness was predicted by age, gender, language ability and temperament (which showed a trend towards significance) at the beginning of the year. At the end of the year these same variables again predicted child self-directedness, with the addition of children’s social connections. Older children, girls, children with better developed language ability, and children with an easier temperament were rated as more self-directed by teachers. It is likely that children’s temperament is related to their ability to make friends prior to school, therefore it is not surprising that a higher score on the social connections variable is associated with more self-directed behaviour at school.

Child cooperative participation at the beginning of the year was predicted by gender and language ability at both the beginning and end of the year. Girls and children with better developed language ability were rated by teachers as more cooperative in the classroom.

Teacher-rated school liking was predicted by gender, language ability and temperament at the beginning of the year, and only temperament at the end of the year. Again, girls and children with better developed language ability were more likely to be rated by teachers as liking school more at the beginning of the year. However, school liking was not predicted by gender or language ability at the end of the year, indicating as children adjusted to school over the year, their school liking and emotional adjustment was more related to how they actually felt and whether they enjoyed school, rather than characteristics of the child. Children with an easier temperament were also more likely to be rated by teachers as liking school more at both the beginning and end.
of the school year. This result could suggest that teachers’ consider children who meet behavioural expectations at school, indicated by an easier temperament, to like school more than their ‘difficult’ counterparts.

Children’s feelings about school scenarios were not predicted by any child or family factors at either the beginning and end of the school year, although children’s feelings about school scenarios at the beginning of the year was predictive of their feelings about school scenarios at the end of the year. These results indicate that children’s early emotional adjustment to school plays an important role in their later emotional adjustment.

Parents’ ratings of child adjustment at the beginning and end of the year were significantly predicted by temperament, indicating that children with an easier temperament were rated by parents’ as better adjusted to school. Children’s social connections were also predictive of parents’ ratings of child adjustment at Time 1, with children who had more friends prior to starting school being rated as better adjusted to school at the beginning of the year. As previously noted, both temperament and social connections were rated by parents which makes an interpretation of the significance of these findings somewhat problematic.

The above results have shown that even though many child and family factors predicted interpersonal relationship outcomes and child adjustment outcomes, corresponding Time 1 outcomes had the most significant predictive effect on Time 2 outcomes. Based on these results, Time 2 outcomes will be used in further regression analyses to test predictors of children’s overall adjustment to school.

**Classroom Quality**

Ratings of classroom quality were not found to be a significant predictor of the interpersonal relationship school adjustment outcomes. The fact that data were only collected on 16 classrooms is a limitation. It may be that the inclusion of a larger number of classrooms would increase the predictive effect on child outcomes. Significant findings may also have been identified if more complex forms of multi-level analysis were employed. As this was beyond the scope of this thesis, future studies looking at the predictive nature of classroom quality on later adjustment outcomes, should take this into consideration.
8.4 Using the Process Model to Predict to School Adjustment Outcomes

This section of the chapter focuses on the full model. It tests the unique and combined effects of each domain (child and family characteristics, child adjustment, interpersonal relationships, and classroom environment) on two independent outcomes: assessed academic achievement and child-rated school liking. Academic achievement was assessed by the Who Am I? (de Lemos & Doig, 1999). This measure was used to represent children’s early literacy and numeracy abilities. Child-rated school liking was assessed by the School Feelings Questionnaire at the end of the year and was representative of children’s emotional reactions to school.

Guided by the proposed model of school adjustment, specific variables were selected to represent components of the model that were expected to predict later child adjustment outcomes. The same variables were entered for both independent outcomes at most steps in the model, with the exception of Step 2. When predicting child-rated school liking, teacher-rated school liking was included as the teacher-reported variable representing child adjustment. When predicting to assessed academic achievement, teacher-rating of child self-directedness were included as the teacher-reported variable representing child adjustment.

Correlation analyses presented in previous chapters of this thesis as well as regression analyses presented so far in this chapter were used to select eight specific variables to be included in regression analyses to test emotional and academic adjustment to school. In order to maximise power (Burns, 2000) in the following analyses, the number of predictor variables was limited to those that were available for the full sample of children ($N = 90$) therefore, parent-rated variables such as temperament and social support were not included. Each set of variables, which were selected to represent the separate domains of the model, were entered in separate steps into regression equations, so the contribution of each variable could be examined for its unique and combined contribution to the model. These variables and the components of the model they represent are explained below.

Child and family characteristics were entered into both models at Step 1 and were represented by three variables: child age, gender and language ability (PPVT). These three variables were found to be significant predictors of adjustment and interpersonal relationship outcomes in previous regression tests. They provide information on important aspects of the child as well as characteristics of the family.

School adjustment factors were entered at Step 2 of the models. Subscales were selected from teacher ratings on the TRSSA: school liking was used to predict to child-rated school liking outcome; self-directedness was used to predict to assessed academic achievement. Child adjustment was also represented by children’s feelings about school scenarios, as assessed by the PMSSW.

Interpersonal relationship factors were entered in Step 3 of the models and were represented by teacher-reported closeness and children’s responses to sharing their feelings with the teacher (PMSSW).

A final variable included entered at Step 4 in the following regression analyses was classroom quality which was used to represent the school and classroom environment. The context of the school and classroom is an important and overarching feature of the proposed model of school adjustment, which impacts not only on adjustment and interpersonal relationship outcomes, but also on how the child operates within the formal setting of the school.

**Child-rated School Liking**

School liking, as rated by children, provided a measure of children’s emotional adjustment to school at the end of the year. Results, presented in Table 8.17, showed that when entered at Step 1, child and family characteristics explained 3.8% of the variance with neither gender, age, nor language ability being significant predictors. This result is similar to that identified in previous sections of this chapter for children’s feelings about school scenarios at the beginning and end of the year and shows that child demographic and personal characteristics do not have a significant effect on their emotional adjustment over the school year. This implies that how children feel about school is not determined by characteristics prior to school.

Teacher-rated school liking and children’s feeling about school were entered at Step 2, and explained 9.3% of the variance of emotional adjustment. Teacher-rated school liking made a more significant contribution to explaining the variance of child-rated school liking (β = .27, p < .05). Children's feelings about school scenarios made a smaller and less significant contribution (β = .19, p < .10). However, taken together, these results indicate that teachers’ perceptions of children’s school liking as well as
Table 8.17: Regression analyses testing predictors of child-rated school liking at Time 2

<table>
<thead>
<tr>
<th>Model 1. ((N = 90))</th>
<th>(\beta)</th>
<th>(p)</th>
<th>(\Delta R^2)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1. Child and Family Characteristics</strong></td>
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<td>.038</td>
</tr>
<tr>
<td>Age</td>
<td>.14</td>
<td>.038</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>-.01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PPVT</td>
<td>.16</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Step 2. Child Adjustment</strong></td>
<td></td>
<td></td>
<td>.093**</td>
</tr>
<tr>
<td>School liking (TRSSA)</td>
<td>.27</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>Feelings about school scenarios (PMSSW)</td>
<td>.19</td>
<td>†</td>
<td></td>
</tr>
<tr>
<td><strong>Step 3. Interpersonal Relationships</strong></td>
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<td></td>
<td>.051†</td>
</tr>
<tr>
<td>Closeness</td>
<td>.09</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Share feelings with teacher (PMSSW)</td>
<td>.23</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td><strong>Step 5. Classroom Quality</strong></td>
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</tr>
<tr>
<td>Classroom climate</td>
<td>-.05</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(†\) Correlation is significant at the .10 level
\(*\) Correlation is significant at the .05 level
\(**\) Correlation is significant at the .01 level
Overall \(R^2\) (8, 85) = \.19, \(p < .05\).

Children's own perceptions of school explain child ratings of how they feel about to school, and their overall level of emotional adjustment. Interpersonal relationships were entered at Step 3 and accounted for a further 5.1% of the overall variance for child-rated school liking. Of the two variables assessing interpersonal relationship factors, only share feelings with the teacher was a significant predictor of child-rated school liking (\(\beta = \.23, p < .05\)). Closeness in the teacher-child relationship did not contribute to the model.

The quality of the classroom environment explained only 0.2% of the variance of emotional adjustment and did not have a significant predictive effect on this adjustment outcome.

Overall, the most significant predictor of child-rated school liking at the end of the year was teacher-rated school liking, indicating that children who were rated by teachers as high on the school liking subscale were also likely to report liking school on the School Feelings Questionnaire. Children's perspectives of the teacher-child
relationship, illustrated by their responses to sharing their feelings with the teacher, was also a significant predictor of child-rated school liking.

**Assessed Academic Achievement**

Children’s test results for the Who Am I? provided an objective assessment of children’s academic achievement in early numeracy and literacy skills at the end of the year. Results, presented in Table 8.18, showed that when entered at Step 1, child and family characteristics explained 44.3% of the variance of academic adjustment at the end of the year. All three variables made a significant contribution. Results for child age ($\beta = .34, p < .001$) indicated that older children were more likely to achieve higher scores on the Who Am I?. Gender was a significant factor ($\beta = -.22, p < .01$) with girls being more likely to have adjusted well academically. Language ability at school entry was the largest predictor of children’s academic adjustment at the end of the year ($\beta = .53, p < .001$).

Table 8.18: Regression analyses testing predictors of assessed academic adjustment at Time 2

<table>
<thead>
<tr>
<th></th>
<th>$\beta$</th>
<th>$p$</th>
<th>$\Delta R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Model 1. ($N = 94$)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Step 1. Child and Family Characteristics</strong></td>
<td></td>
<td></td>
<td>.443***</td>
</tr>
<tr>
<td>Age</td>
<td>.34</td>
<td>***</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>-.22</td>
<td>**</td>
<td></td>
</tr>
<tr>
<td>PPVT</td>
<td>.53</td>
<td>***</td>
<td></td>
</tr>
<tr>
<td><strong>Step 2. Child Adjustment</strong></td>
<td></td>
<td></td>
<td>.101***</td>
</tr>
<tr>
<td>Self-directedness</td>
<td>.37</td>
<td>***</td>
<td></td>
</tr>
<tr>
<td>Feelings about school scenarios (PMSSW)</td>
<td>-.10</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Step 3. Interpersonal Relationships</strong></td>
<td></td>
<td></td>
<td>.011</td>
</tr>
<tr>
<td>Closeness</td>
<td>-.07</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Share feelings with teacher (PMSSW)</td>
<td>.08</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Step 5. Classroom Quality</strong></td>
<td></td>
<td></td>
<td>.000</td>
</tr>
<tr>
<td>Classroom climate</td>
<td>.02</td>
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</tbody>
</table>

** Correlation is significant at the .05 level  
*** Correlation is significant at the .01 level  
Overall $R^2 (8, 86) = .56, p < .001$.  
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Teacher ratings for children’s adjustment to the learning demands of the classroom and their approach to learning, as measured by self-directedness, were entered at Step 2 and contributed significantly to the model. Self-directedness scores explained 10.1% of variance for the Who am I? (β = .37, p < .001), which indicated children who displayed a more self-directed approach to learning in the classroom, were more likely to achieve higher scores on the Who Am I?.

Children’s feelings about school scenarios using the PMSSW were entered at Step 3 of the model and did not make a significant contribution to children’s academic adjustment.

Interpersonal relationships were entered at Step 4 of the model and explained an insignificant 1.1% of the variance of children’s academic adjustment. Neither closeness in the teacher-child relationship, nor children’s ‘share feelings’ responses on the PMSSW predicted academic adjustment at the end of the year.

Classroom quality was entered into the model at Step 5 and explained no additional variance, indicating the quality of the classroom climate did not relate to children’s academic adjustment.

Overall, results indicated that child and family factors displayed the most significant contribution to assessed academic adjustment at the end of the school year. Children’s approach to learning, assessed by teachers’ ratings of self-directedness, also had a significant predictive effect on academic adjustment. Interestingly, interpersonal relationships did not contribute significantly to the explaining the variance of academic adjustment at the end of the year. This finding contradicts that of Birch and Ladd (1997) and Pianta (1999 cited in Baker, 2006), who report associations between close teacher-child relationships and academic adjustment. The smaller sample size in the current study, compared with the samples of these other researchers, could be contributing to this finding.

8.4.1 Summary of Predictors of Overall Child Adjustment

Two well-established measures of socio-emotional and academic adjustment, child-rated school liking and the Who Am I?, were used to test the predictive value of the model. Results showed that while interpersonal relationship outcomes were significant predictors of children’s emotional adjustment to school, they did not contribute to children's academic adjustment. Instead, child and family factors contributed significantly to academic adjustment indicating how children adjust to the academic demands of school is somewhat reliant on factors intrinsic to the child or
which they bring with them to school. Emotional adjustment, however, appears to be more changeable over the year, as it is more reliant on children’s feelings about school scenarios and relationship with the teacher, which both develop over the school year.

For the most part, findings reflected the directions of influence outlined in the adjustment model; however some predictions in the model were not replicated by the results. Four main predictions were outlined in the proposed model of school adjustment. The proposed model of school adjustment suggested that child and family factors would predict later child adjustment outcomes. This prediction was justified for the academic adjustment outcome but not for socio-emotional adjustment. The model also suggested that interpersonal relationships predicted school adjustment. This prediction was confirmed for socio-emotional adjustment but not for academic adjustment. Furthermore, the model suggested that early school adjustment, as represented by the later adjustment outcomes entered in the model, would predict later school adjustment. This prediction was justified for both socio-emotional adjustment and academic adjustment outcomes. Moreover, the model outlined that the classroom context would have an impact on later child adjustment. This prediction was not justified for either adjustment outcome, and more research needs to be conducted with larger number of classrooms to assess the predictive influence of classroom factors on later child adjustment outcomes.

Further exploration of family factors, interpersonal relationship factors and community influences on child adjustment outcomes is needed to comprehensively test the adjustment model. For example, other family influences identified in the literature, such as parenting styles, socio-economic factors, and family structure, could be included in future predictive analyses to determine additional influences on children’s adjustment to school. Exploring the effects of positive and negative parent-teacher relationships on children’s adjustment could also be included in future analyses. Likewise, it would be interesting to explore community influences on children’s adjustment, such as the type of childcare available to families prior to children commencing school and whether or not this has an effect on children’s ability to adjust to the formal school environment.

Additionally, extending the research undertaken in the current study with a larger sample of children, teachers, parents and classrooms will be important to further testing the effectiveness of the model and to increasing the number of variables included in regression equations.
8.4.2 Chapter Summary

The main findings emerging from the results presented in this chapter are the different predictive effects of certain child and relationship factors on school adjustment and interpersonal relationship outcomes. Child characteristics of age, gender and language ability played a large role in predicting children’s social and academic adjustment to school. On the other hand, children’s feelings about school and their relationship with their teacher contributed to children’s emotional adjustment to school. The proposed adjustment model identified key components of adjustment to examine the predictive effects of child factors, interpersonal relationship factors, school adjustment factors, and classroom factors on later adjustment outcomes.

Results indicated that children’s emotional adjustment to school at the end of the year was predicted by children’s early feelings about school and the relationship they have with their teacher. Children who felt more positive in specific school situations at the end of the year, as identified by the PMSSW, were likely to report more school liking at the end of the year. Similarly, children who reported wanting to share their feelings with their teacher at the end of the year were more likely to report higher levels of school liking.

Children’s academic achievement at the end of the year was predicted by child demographic factors of age and gender, as well as children’s language ability and approach to learning at the beginning of the year. Results indicated that older children and girls were more likely to have higher scores on the Who Am I? Similarly, children who had better developed language ability at the beginning of the year and whose approach to learning was more self-directed were likely to have higher academic achievement at the end of the year.

In sum, factors contributing to a positive emotional adjustment to school are different from those which predict a successful academic adjustment to school. Whether or not children adjusted successfully to the emotional and personal demands of the school environment was not as dependent on their age, gender or language ability, as it was for children's academic adjustment. The next chapter of this thesis will discuss the main findings of this research from Chapters 6, 7 and 8 in light of the literature and the aims of the project, and will identify the contribution these results have made to knowledge in their field of school adjustment.
9 DISCUSSION

This study has addressed a number of factors that explain and affect children’s adjustment to the personal, interpersonal and institutional aspects of the first year of school. A review of the current literature identified two main areas of importance for adjustment research. The first was to give greater recognition to the central role of children’s experiences in understanding the adjustment process. The present study has brought a new understanding of children’s perspectives of school by using a new pictorial measure of stress and wellbeing administered to children in a structured interview, in addition to reports from teachers and parents. The second area concerned the process of change in children’s experiences across their first year of school, and implementing appropriate means for measuring change in adjustment over time. The present report has used new and established measures of child adjustment at two points in time to investigate this process over the first year of school.

Adjusting to school has been identified in this study as a developmental process for children. Children change over the course of their first year of school, not just in their level of cognitive ability, but also in their social and emotional capabilities. Measuring these changes requires a focus on the child as an individual, and as a part of an overall network of influencing factors, including the family, the community, the school, and the relationships children have with peers and teachers.

The study drew on ecological perspectives that place the child at the centre of the adjustment process in order to model the process of adjustment over the course of the first year of school. Influenced by Bronfenbrenner and Morris’ social-ecological model of human development (1998), as well as Birch & Ladd, 1997, Rimm-Kaufmann & Pianta, 2000, and Dunlop, 2003, a process model of child adjustment was developed and used to examine children’s experiences of adjusting to school across the first year. The model provided a stimulus for both the design of the study as a whole and the selection of analytical procedures used to investigate the proposed aims of the research.

Children were placed at the centre of the model as they are not only central to the process of adjusting to school but they are considered active participants in the process who operate within a number of contexts over the first year.

The context for the study was Regional Australia, with the research being conducted in New South Wales public schools situated within and around a large regional centre. Although the context of community was not measured explicitly in this study, the community influences the school and the family in the opportunities families
and children have prior to school which are provided by that community, such as the type of childcare available.

The design of this study identified key contributors to and ways of measuring adjustment which were then used to gather information from children, teachers and parents at the beginning and end of the first year if school. Assessment of the quality of the classroom environment took place at the mid-point of the year. The foremost method of data collection, however, included the development of a new measure of stress and wellbeing associated with school adjustment. Existing measures of school adjustment have mainly focused on teacher and parent reports of children’s adjustment to school or rating scales completed by children regarding their feelings about school in general terms. The new measure of school adjustment, the Pictorial Measure of School Stress and Wellbeing (PMSSW), was designed to elicit children’s emotional, social and behavioural reactions to specific demands of the formal school environment. Personal, interpersonal and institutional demands were identified by the literature and reflected in children’s responses to the PMSSW. These proved to be important aspects of children’s perspectives on the adjustment process.

Children in the current study have provided new perspectives of their social and emotional journey through the first year of school, through their responses to the specific school scenarios presented in the PMSSW. Children’s own feelings about specific school situations, their views of the relationship they have with their teacher throughout the first year of school, and the strategies they used to cope with the everyday stresses of the formal school environment provided evidence of their personal experiences of adjusting to the first year of school and the degree of stress or wellbeing children they faced.

9.1 Extending Current Research Methods for Measuring School Adjustment

Historically, school adjustment has been researched using teacher and parent reports of children’s behaviour and academic competencies as they start school and move through their first year. In more recent times researchers have acknowledged the importance of including children’s perspectives on adjustment (e.g., Dockett & Perry, 2001, 2003; Harrison, 2004; Harrison et al., 2007). This body of research acknowledges the agency of the child (Dunlop, 2003), as an active contributor to the adjustment process. With the increased attention given to gathering children’s voices in research on transition and adjustment, the preoccupation researchers once had with children’s
academic competence as the sole indicator of school adjustment has subsided. Adjustment studies now commonly include children’s social and emotional competence as well.

Children’s perspectives have been included in research that has explored relationships with peers and teachers (Birch & Ladd, 1996), aspects of school that are seen as important (Dockett & Perry, 2005; Einarsdóttir, 2003, Greibel & Neisel, 2000), and attitudes towards academic and interpersonal aspects of school (Harrison, 2004; Ladd et al., 2000). In the present study, children’s perspectives were used to elicit information about their emotional and social reactions to specific aspects of the school environment and how children interact and cope with this environment. This was achieved using the PMSSW, which presented specific school scenarios in an open-ended interview.

9.1.1 Including Children’s Views

The proposed model of school adjustment developed for the current study was informed by Bronfenbrenner and Morris’ (1998) and Dunlop’s (2002) social-ecological models, as well as other models of transition. It identified children as key participants in their interactions with the school environment and their relationships with others. Children’s views provided an important perspective on the process of adjustment and have been successfully elicited in the current study, using a mixed methods approach. The first stage of the PMSSW employed qualitative methods to gather and code children’s feelings about school and the teacher. Coded responses were then examined using quantitative methods to assess the frequencies of particular responses at the beginning and end of the school year. These data were then compared to examine change over time for individual children and for the group as a whole. The data set was supplemented by the use of established measures of school liking and avoidance at the end of the year, and an assessment of children’s early achievements in literacy and numeracy. The mixed method approach was extremely useful in providing an in-depth account of individual children’s adjustment experiences for a large number of children.

9.1.2 Developing a New Measure: The Pictorial Measure of School Stress and Wellbeing (PMSSW)

The need to develop a new measure to assess children’s individual reactions to the formal school environment provided one of the main focuses of this study. The design and development of the PMSSW extended current research methods in the area of school adjustment by providing children with the opportunity to respond to specific
school scenarios which illustrated the personal, interpersonal and institutional demands of school.

Including children as primary participants in research required that data collection methods were tailored to meet the specific needs of children, to ensure that data were reliable and valid. Direct and indirect methods have been used to engage children in the research process over the last two decades. Projective techniques enable the child to project their thoughts and feelings onto something or someone else rather than being asked to respond directly about themselves (Cameron, 2005). This type of strategy has been used successfully in a number of studies in the psychology arena, particularly when children’s emotions are the topic of discussion. Such methods allow children a degree of distance from the situation, especially when it may cause stress, and encourage children to think more deeply about their feelings on a certain topic.

The design of the PMSSW was informed by previous research which used projective techniques (e.g., Harter & Pike, 1984) and child reports (e.g., Ladd & Price, 1987; Valeski & Stipek, 2001) to explore children’s social competence and attitudes toward school. Rather than asking children to rate their feelings about specific aspects of school, the current methodology invited children to describe their feelings in a more open-ended manner, and also provided children with the opportunity to explain whether or not they would share their feelings with the teacher and articulate their strategies for coping in school situations.

Projective techniques were utilised successfully in the current study and encouraged children to place themselves in typical school situations to explain how they were feeling. Children’s reasons for their feelings offered a deeper insight into their emotional reactions to school, as did their self-reported strategies for coping in situations they saw as stressful or non-stressful. Although children were initially asked how the child in the picture felt, they were also asked if that was how they would feel in that situation. This procedure ensured children’s responses reflected their own feelings and encouraged them to relate to the child and scenario represented in the picture.

Presenting the PMSSW as a structured yet open-ended interview achieved its aim to encourage children to think deeply about their emotional response to different aspects of school. Asking children the same five questions for each scenario provided them with some predictability and routine over the course of the interview, which was important for this age group of children.

Presenting scenarios that tapped separate aspects of the school environment, in the order of a typical school day also provided relevance for children. In addition to this,
including scenarios which depicted in-class, out-of-class and peer-related aspects of school allowed children to respond to the range of different situations they experience at school. All but a very few children were capable of meeting the cognitive requirements of the PMSSW. Children who were very delayed in their language abilities or who had a severe developmental delay were unable to complete the PMSSW.

Out-of-class scenarios were designed to assess children’s reactions to the personal demands of school; these included: Waving good-bye to parent in the morning, Lining up outside the classroom, Going to the toilet by yourself, and Lining up at the canteen. These elicited responses which focused on personal characteristics such as confidence and independence. Peer-related scenarios were designed to assess children’s reactions to the interpersonal demands of school; these included: Entering the playground at the beginning of lunch and Watching other children play in the sandpit. These two scenarios intended to focus on peer relationships and self-confidence in social situations. In-class scenarios were designed to assess children’s reactions to the institutional demands of school and to tap their understanding the rules and routines of school; these were: Speaking in front of the class, Sitting on floor listening to the teacher, and Doing work at your desk.

The coding system developed for the PMSSW was based on a detailed interpretation of children’s responses to the PMSSW. Codes that were developed reflected children's experiences of the personal, interpersonal and institutional demands of the school environment. The following section will discuss results from the interpretive and descriptive analyses of the PMSSW.

9.1.3 Interpretive and Descriptive Analyses of the PMSSW

The results of PMSSW interviews revealed that children were well equipped to report their feelings about specific situations they face in their first year of school and to suggest strategies they might use for coping with these situations. Their responses to the nine scenarios indicated that between 8% and 56% of children experienced feelings of stress, anxiety and negativity towards one or more aspects of school in the first term of starting school. At the end of the year, this had increased to between 6% and 83%. More stressful aspects of school were identified as out-of-class and peer aspects which were less dictated by the routines of the school and which had less direct support from the teacher. Two scenarios in particular educed negative feelings from at least half of the children at the beginning and end of the school year: Going to the toilet by yourself and Watching other children play in the sandpit proved to be the most stressful situations for
children. Over time, children’s reasons for negative responses to these scenarios focused more on relationships with peers than on personal or school-related factors, which suggested that stressful feelings were linked to the social and behavioural expectations of school, such as managing peer relationships in the playground.

The coding system developed for the PMSSW provided a useful template for identifying the positive and negative feelings that communicated the degree of children’s perceived stress. Children’s self-reported reasons for their feelings about school scenarios provided some explanation for their feelings. In addition to this, the interpretive analyses of children’s interview data further explained children’s positive or negative feelings and provided a rich picture of children’s early responses to school.

**Feelings and Reasons**

Responses to the PMSSW showed that a small but significant number of children didn’t enjoy particular aspects of school and reported unhappy feelings or negative attitudes, which were indicative of a stressful reaction to school. Personal reasons for feeling negative in school situations showed a lack of connection to school activities and a general dislike of some aspects of school. For example doing schoolwork at their desk in class was considered difficult by some children. Reasons relating to relationships with peers, parents or teachers provided information about children’s insecurities and anxieties about being separated from parents or peers, whom they relied on for support. Children’s school-related reasons for feeling negatively about school scenarios often reflected their anxieties about not meeting the teacher’s expectations or not following the rules and routines of the classroom.

Many responses to the scenarios depicted in the PMSSW showed that children had positive feelings towards the personal, interpersonal and institutional aspects of school. Positive feelings were indicative of children’s wellbeing and children’s reasons for their positive feelings illustrated many facets of positive attitudes toward school. Many children gave personal reasons for feeling positive about school, which indicated that children liked school and thought of it as an enjoyable place to play and learn. Many children also gave relationship reasons for feeling positively toward school, which were indicative of their focus on friends and the positive relationships they had with teachers and peers, as well as their families. Additionally, many children gave school-related reasons for their positive feelings which indicated their awareness of the rules and routines of the school day.
At the beginning and end of the school year four scenarios stood out for their high number of positive responses. More than 85% of children reported positive feelings to Waving good-bye to their parent in the morning, Lining up outside the classroom, Speaking in front of the class, and Sitting on the floor listening to the teacher.

Results for Waving good-bye to their parent in the morning contradicted expectations hypothesised by Robbins (1997) that separation anxiety would be intensified at the beginning of the school year and would cause many negative feelings about waving good-bye to their parent in the morning. Robbins’ hypothesis predicts that children would report a more stressful reaction to Waving good-bye in the morning at the beginning of the year; however this was not the case. Only 15% of children reported negative feelings to this scenario at the beginning of the year, which was not overly high. Lining up outside the classroom, was also expected to be stressful for children at the beginning of the year as they developed their understandings of the routine aspects of school, and their relationships with peers. It was expected that as children became more familiar with going to school and with the routines which occur at school, such as lining up outside the classroom, they would feel more comfortable and positive about being in those situations. Results contradicted these expectations. The majority of children did become more positive over the course of the year.

In-class scenarios were expected to cause some degree of stress for children, especially for those who had not attended any type of formal care prior to school, and who thus weren’t familiar with routines and rules associated with the more structured aspects of school. It was expected that children would feel shy and self-conscious about speaking in front of the class at the beginning of the year however this was not the case. Children were least stressed about this scenario at the beginning of the school year which could be indicative of high levels of self-confidence or experience with this type of situation in prior-to-school settings they may have attended. It could also be suggestive of positive and supportive practices by classroom teachers, who would be aware of the anxieties children have about this scenario. Sitting on the floor listening to the teacher was another routine aspect of school which was considered to produce some stress for children at the beginning of the year but which children would become more familiar with and feel more positive about over time. This scenario elicited a high number of positive feelings from children at the beginning and end of the year. The fact that 92% of children in the sample had attended prior-to-school care could have increased their familiarity with this scenario.
Share Feelings and Reasons

Children’s responses to whether or not they would share their feelings about the nine PMSSW scenarios with their teacher were used to provide an indication of the relationship between the child and teacher from the child’s perspective. Reasons for sharing or not sharing feelings with the teacher illustrated whether children were thinking more deeply about the teacher-child relationship or whether they wanted to share or not share their feelings for personal/child-related reasons or because they thought they were expected to.

In general, children were more likely to say they would share their feelings with the teacher at the beginning of the year than at the end of the year. This finding suggests a number of possible influences coming into play as the year progressed. Children are likely to be more reliant on the teacher at the beginning of the year when they are new and as they just starting to develop strategies to cope in stressful and non-stressful situations. It is possible that children’s school experiences revolved more closely around the teacher at the beginning of the year when they were learning about the rules and routines of the school and classroom. At the beginning of the year children may also feel they are required to share what they are thinking and feeling with the teacher, and teachers may encourage children to articulate their needs and wants in the early stages of starting school.

By the end of the year, children were much more familiar with the rules and routines of the school and expected to be less reliant on the teacher for help and guidance. Children also seemed more confident with making their own decisions at the end of the year and may feel as though there is no need to tell the teacher when they are feeling happy in certain school situations. At the end of the year, children may share their feelings less as they have learned when it is appropriate to tell the teacher what you are thinking and how you are feeling. It is possible that teachers have encouraged children to be self-regulated and autonomous throughout the year, thus, this autonomy may be evident in children’s responses.

The most common reason given by children for wanting or not wanting to share their feelings with the teacher at both the beginning and end of the school year were child-related or personal reasons. These reasons often reflected children’s focus on what they were doing in the scenario and suggested that children would want to share their feelings because they felt what they were doing was important. These responses may be indicative of the egocentric nature of children at this age, and were most commonly given in out-of-class and peer related scenarios.
Some children gave reasons which showed they valued their relationship with the teacher and saw the teacher as someone they could turn to for support as well as someone who cared about them. However, when positive relationships were not reported, children had anxieties and concerns about school. Some responses in the current study were clear examples of what Birch and Ladd (1997) describe as “conflictual” teacher-child relationships. These children said they would not turn to the teacher as a source of help or support when they felt stressed or sad at school. Reasons which illustrated children’s perspectives on their relationship with the teacher were most commonly reported in scenarios which were in-class or which involved the teacher, such as Lining up outside the classroom and Sitting on the floor listening to the teacher.

Some children gave reasons for wanting or not wanting to share their feelings with the teacher which demonstrated their preoccupation with meeting the teachers’ expectations and following the rules and routines of the classroom and school environment. Children were most likely to give this type of response in scenarios which were routine or in-class scenarios such as Lining up outside the classroom, Sitting on the floor listening to the teacher, or Doing work at desk.

**Coping Strategies**

Children’s self-reported strategies for coping with everyday school scenarios illustrated whether or not children had successful methods for dealing with stressful and non-stressful situations. It was expected that children’s’ coping strategies would be determining influences on their level of stress or wellbeing in their first year of school.

Results from the descriptive analyses of children’s strategies for coping in typical school scenarios showed a shift from a reliance on the school rules and routines as coping strategies at the beginning of the year to more intrinsically motivated or constructive coping strategies at the end of the year. It was expected that children’s coping strategies would become more positive over the school year, and results supported this. On the other hand, children’s reliance on school rules and routines for coping with stressful and non-stressful situations at the beginning of the year was not anticipated. Dockett and Perry (2001) also identified children’s awareness of the school rules and the need to learn the rules to function at school. Apart from this research, there has been no specific research to date, on coping strategies used by children in the early years of school, especially with regard to specific school scenarios. As Muldoon (2003) recognised, research on child stress has not taken into account children’s own
perspectives of situations. The findings from the current study provide a new perspective on children’s early school experiences which have not previously been studied.

Correlations within the PMSSW

Overall, responses to the PMSSW showed important differences between children, both in their initial perceptions of a situation as positive or negative, and in their strategies for responding to the event. It may be, as Robson’s (1999) study showed, that children’s level of stress in a situation depended on their ability to utilise or possess a constructive coping strategy.

At the beginning of the school year, children who reported positive feelings about school were more likely to use school-related coping strategies. Children who reported positive feelings at the end of the year were likely to use constructive coping strategies. This may indicate a change from relying on external structures at the beginning of the year to relying on internal resources at the end of the year. For example, children may feel good about school situations at the beginning of school when they feel as though they know the rules and routines of the new school environment. At the end of the school year, children might feel good about school situations when they have personal and constructive coping strategies which relate to their own confidence in knowing how to best solve a problem.

Over time, children’s personal reasons for their feelings and telling the teacher reduced, while their relationship-related and school-related reasons increased. This implies the impact of the institutional aspects of school on children’s reasoning and decision making processes. Children were more focused on themselves at the beginning of the year and report intrinsic motivators for feelings and their relationship with the teacher. In contrast, at the end of the year, children were more focused on how they should follow the school rules and if they were meeting the teacher’s expectations. As discussed above, the opposite was found for children’s coping strategies. At the beginning of the year more children relied on school routines as coping strategies, whereas at the end of the year more children relied on personal or constructive coping strategies. The impact of the school environment and children conforming to the behavioural expectations of school was evident in children’s reasoning rather than their strategies for coping with school situations. Children’s dependence on the rules and routines of the classroom to help them solve problems diminished over the school year for most scenarios, even though their knowledge of the school as a system increased.
Correlation analyses of PMSSW scores for children’s feelings and sharing their feelings with the teacher showed that children were more likely to share their feelings with the teacher when they felt happy in school situations. These results can be linked with results from Dockett and Perry (2001), who emphasised the importance of positive teacher-child relationships in their guidelines for effective transition to school programs, and note that in situations where positive relationships were evident between children and teachers, the children reported positive feelings about school.

Responses to the PMSSW scenarios also showed that children’s relationships with peers developed over the school year. Children were more likely to mention their social connections with peers in their reasons for their feelings, especially with regard to peer scenarios, at the end of the year compared to the beginning of the year. Peers not only played an important role with how children felt in playground situations, but they also played a supportive role in children’s interactions with the school environment; for example children mentioned taking a friend with them to the toilet as a strategy for coping with feeling scared or lonely. The role of peers in providing social support for children at school has also been identified by Band and Weisz (1988) and Rossman (1992). Peer relationships also acted as a stressor for some children who reported not being able to find someone to play with or peers not letting them play. This has also been reported by Juvonen and Wentzel (1996) who recognised that peer rejection can function as a stressor for young children at school. In addition to this, Ladd et al. (1997) reported that peer rejection is linked to lower levels of school liking. Therefore it may be the case in the current study that children who have negative peer relationships are less happy at school and experience less wellbeing, thus it is these children who may be more likely to experience problems adjusting to school over their first year.

Overall children’s social and emotional adjustment to the personal, interpersonal and institutional demands of the first year of school, as measured by the PMSSW, showed a number of differences between Time 1 and Time 2 that indicated how children’s perspectives on school and ways of coping changed over the year. These differences can be attributed to growth in children’s confidence, self-awareness, social awareness, peer and teacher relationships, and an understanding of the routines and expectations of the teacher and school environment.

**Correlations between the PMSSW and other Adjustment Measures**

Results from the PMSSW were compared with other sources of information on children’s adjustment using standardised measures reported in the literature. Teacher
ratings of child adjustment and interpersonal relationship outcomes and parent ratings of
cchild adjustment were compared with children’s feelings about school scenarios,
sharing feelings with the teacher and strategies for coping in typical school situations, at
the beginning and end of the year.

It was anticipated that teachers’ reports of the relationship they had with children
would be related to the degree to which children would share their feelings with the
teacher. Correlations between the PMSSW and teachers’ ratings of their relationship
with children showed no significant relationships between children’s scores on share
feeling with the teacher and teachers’ ratings of conflict, closeness or dependency in
the teacher-child relationship. Further research using the PMSSW is needed to ascertain
whether this failure to find a link between children’s reports of sharing their feelings
with the teacher and teachers’ ratings of their relationship with children is due to the
PMSSW measuring dissimilar constructs to the teacher-rated measures of the
relationship; that is to say, if it is measuring differences in children’s personality or
feelings of confidence and competence in approaching the teacher, rather than their
liking of the teacher.

Parent ratings of children’s school adjustment were expected to correspond with
children’s feelings about school scenarios and their relationship with the teacher. A
connection between children’s feelings about school scenarios and parent’s ratings of
school adjustment was not identified; however findings did show that sharing feelings
with the teacher was associated with parent’s ratings of children’s adjustment at the
beginning and end of the year. The connection between a positive teacher-child
relationship and children’s positive adjustment to school has been identified in the
research (Birch & Ladd, 1997), however this connection has only previously been made
with teacher’s ratings of adjustment. Parents, however, were also in a position to
observe children’s adjustment to school and their views were included in this study as
well as teachers’ views. Parent’s may be more in touch with children’s feelings about
school, whereas teachers may be more aware of the types of behaviours children display
in the classroom and playground which are indicative of liking or not liking school.

Associations between children’s strategies for coping in school situations and
teacher ratings of adjustment at the beginning and end of the year were evident.
Children who relied on the school routines as their strategies for coping at the beginning
of the year were slightly more likely to be rated by teachers’ as self-directed; however
children who used more personal or intrinsically motivated coping strategies at the end
of the year were likely to be rated high by teachers on self-directedness and cooperative
participation. These results not only show the development of children’s social and emotional competence over the first year of school, but also indicate the difference between children’s self-directed behaviour at the beginning and end of the year. At the beginning of the year, children who were considered to be self-directed by teachers, showed a greater understanding of the rules and routines of the school environment, whereas, at the end of the year, children who were considered self-directed by teachers showed greater confidence in their own ability to find ways of coping in school situations.

However, in general there was a lack of correspondence between the PMSSW measures and teachers’ and parents’ ratings of school adjustment and interpersonal relationship outcomes. In addition to this, children’s scores for share feelings with the teacher did not correspond to teachers’ ratings on the quality of the teacher-child relationship. Strategies for coping with school scenarios were more likely to correspond with teachers’ and parents’ ratings of school adjustment; however relationships between children’s coping styles and teachers’ ratings of cooperative participation and self-directedness were weak ($r$ of .19) and achieved only marginal significance.

The PMSSW elicited a more detailed account of children’s emotional and social reactions to school than other measures of similar constructs. With this in mind, children’s self-reported school liking was positively related to children’s PMSSW scores for share feelings with the teacher, use of constructive coping strategies, and feelings about school scenarios. This implies that children’s perspectives are reliable across the different methods of testing school adjustment. The lack of a clear relationship between children’s feelings about school and teachers’ and parents’ ratings of school liking and adjustment will need to be explored further in future studies examining emotional adjustment to school.

The importance of including children’s perspectives of school as they adjust over the first year is evident. Children’s perspectives have not only provided a rich understanding of the process of adjustment, but they have also added to the comprehensive data that teachers and parents are unable to provide, to create a more complete picture of children’s stress and wellbeing over the first year of formal schooling.

### 9.2 Findings from Testing the Process Model of Child Adjustment

The process model of child adjustment used in the current study provided a relevant and practical framework from which to examine child adjustment in a holistic
manner. The key contribution of the proposed model of school adjustment is the inclusion of over time effects of early child, family and classroom factors on interpersonal relationship and school adjustment outcomes. The model was successful in framing the predictive effects of child and family factors on early and later ratings of child outcomes. The model was also successful in framing the predictive effects of early child adjustment and early interpersonal relationship outcomes, measured at the beginning of the year, on later adjustment and interpersonal relationship outcomes, measured at the end of the year. A discussion of findings from testing the proposed model of school adjustment will be presented below.

At the beginning of the year children’s gender, language ability and temperament had the greatest predictive effect on child adjustment outcomes. Girls were more likely to adjust positively at the start of the school year, as were children with better developed language ability and a less difficult temperament. Differences between boys and girls have been identified in the teacher-child relationship literature (e.g., Birch & Ladd, 1997; Harrison & Ungerer, 2006; Silver et al., 2005) and recently in the school readiness literature (e.g., National Longitudinal Survey of Children and Youth, 2006); however gender differences and their effect on child adjustment outcomes have been less prevalent in the research on school adjustment.

Language ability, gender, behaviour competence and social connection also had the greatest predictive effect on early interpersonal relationship outcomes. Lower language ability was predictive of higher levels of conflict in the teacher-child relationship at the beginning of the year. Conflict has also been associated with poor academic outcomes in previous studies of children's early school adjustment. Pianta (1999; cited in Baker, 2006) attributes this to the degree of emotional security children have with their teacher. The higher the amount of emotional security the more likely children are to want to engage in the learning process and take risks in their learning. In addition to this, girls were more likely to have higher levels of closeness in the teacher-child relationship in the current study, a trend also found by Howes et al. (2000). Gender has played a role in differentiating between children’s relationship with their teachers in the early years of school in studies in Australia and overseas. Both children and teachers have reported gender differences in the teacher-child relationship (e.g., Harrison & Ungerer, 2006), and in every case, boys have higher levels of conflict in their relationships with teachers and girls have more closeness or comfort in the teacher-child relationship.
Competent behaviour at home, that is behaviour which indicates, for example, self-regulation, prosocial skills and tension-management, was predictive of higher levels of closeness in the teacher-child relationship. Thus, children who exhibit the ability to regulate their own behaviour and emotions, and display positive social skills are more likely to be rated as having close relationships with teachers. Saarni (1999) reports differences in how boys and girls regulate their emotions and manage social situations. From what is known about the gender differences in teacher’s relationships with boys and girls, it is possible that the differences in gender may be impacting on the way teachers’ view their relationships with competent girls and competent boys in the current study. In effect, teachers may find it easier to manage children who can manage themselves.

Further results showed that children who had more social support at the beginning of the year, that is, they knew other children starting at the same school or had siblings attending the same school, were also more likely to have close relationships with their teachers. Children who had prior-to-school experience with forming peer relationships were more likely to have experience with forming relationships with adults and teachers as well. Children's social understandings and social competence develops in the years prior to school (Fabian & Dunlop, 2002), thus their ability to form friendships with peers could be linked with their ability to form close relationships with teachers. Another possible explanation for children with more social support having closer relationships with their teachers relates to a separate finding from the current study showing that parents have closer relationships with their child’s teacher if they already have another child attending the same school. Children with siblings attending the same school may have visited the school prior to commencing themselves, and could have seen and begun forming early relationships with teachers then, or at least, an early awareness of the school environment and processes.

At the end of the year, children’s gender, language ability, temperament and Time 1 outcome score had the greatest predictive effect on children’s adjustment outcomes. The classroom environment also played a role in predicting later child adjustment and interpersonal relationship outcomes, although often the effect did not achieve statistical significance. The link between gender and classroom participation (measured by combining scores on self-directedness and cooperative participation) has also been reported by Ladd, Birch and Buhs (1999), who found that girls were more likely to participate cooperatively in the classroom than boys. Children’s language ability as measured at the beginning of the year was predictive of their self-directedness
and cooperative participation at the end of the year. There is minimal data on the link between children’s cognitive competence on entry to formal schooling and their classroom behaviour and approach to learning throughout the first year of school. Ladd, Birch and Buhs (1999) and Harrison, Clarke and Ungerer (2007) reported a significant correlation between cognitive maturity (also measured by the Peabody Picture Vocabulary Test) and children’s classroom participation, with significantly higher rates of classroom participation from children with higher levels of cognitive maturity.

Children’s temperament predicted self-directedness at the end of the year, and also predicted parent-rated child adjustment at Time 2. Children with a more difficult temperament display more antisocial behaviours than children with an easy temperament. Antisocial behaviour has been correlated with classroom participation in other studies of school adjustment (Ladd et al., 1999), and could be linked to less self-directedness in class. Children with a more difficult temperament may not cope with the academic pressures of the classroom environment as well as children with an easier temperament, and may not enjoy conforming to the rules and routines of the classroom. Therefore activities requiring a degree of self-directedness may be more stressful for children with a difficult temperament. Children who display more antisocial behaviours are also more likely to be rejected by peers, thus any classroom experiences involving cooperation and social competence may be difficult for children with a difficult temperament.

The quality of the classroom environment was a significant predictor of teacher’s ratings of cooperative participation in children. The connection between the quality of the classroom environment and children’s cooperative participation with respect to their behaviour has also been identified by Donohue, Perry & Weinstein (2003). These researchers reported fewer interpersonal behaviour problems and lower rates of peer rejection in classrooms which demonstrated positive teaching practices and a focus on positive peer and teacher relationships. Similarly Rimm-Kaufmann et al. (2005) noted a decrease in behaviour problems with an increase in classroom quality.

Time 1 outcomes of the same Time 2 variables often had the greatest predictive effect in the regression models. In all later child adjustment outcomes, the same early adjustment outcome was a significant predictor. This provided an indication that how children adjust and feel about school at the beginning of the year sets a clear path for how they adjust and feel about school at the end of the year.

Gender, language ability and Time 1 outcome scores predicted children’s interpersonal relationship outcomes at the end of the year. Age was also a predictor in
children’s scores for share feelings with their teacher. Gender played a significant role in the type of relationship children had with their teacher at the end of the year. Results reflected those at the beginning of the year with girls having more closeness in the relationship. In addition to this, boys had more conflict with their teachers at the end of the year. These results are comparable to much of the teacher-child relationship literature. For example, Harrison and Ungerer (2006) found that boys were more likely to see the teacher as less accepting than girls, and that teachers rated their relationships with boys as higher in conflict. Higher conflict between teachers and boys has also been reported by Birch and Ladd (1996) and Howes et al. (2000). Children’s language ability also predicted their relationship with the teacher in that children with better language ability had less conflict and slightly more closeness with their teacher. Other researchers have identified this relationship in the opposite direction (e.g., Hamre & Pianta, 2001; Pianta, 1994) finding the quality of the relationship teachers have with children at the beginning of the year is predictive of later academic success. The possibility that children’s language ability is a precursor to a positive or negative teacher-child relationship is a new finding in adjustment research. Younger children were likely to want to share their feelings with the teacher more often, possibly illustrating a degree of dependency on the teacher at the end of the year, rather than or as well as teacher liking.

In sum, at the beginning and end of the year child demographic factors of gender, age, and children’s language ability, had the greatest predictive effects on children’s adjustment and interpersonal relationship outcomes. Other factors of temperament, social support and the quality of the classroom environment also had an impact on how children adjusted and formed relationships with teachers over the first year of school. Children’s adjustment and interpersonal relationship outcomes at the beginning of the school year were often the most significant predictors of their later adjustment and interpersonal relationship outcomes, showing that the classroom environment and relationships children form with teachers and peers at the beginning of the year are vital in their overall adjustment to the first year of school.

9.2.1 Using the Process Model to Predict School Adjustment Outcomes

The predictive value of the process model of child adjustment was tested using a measure of socio-emotional adjustment to school (child-rated school liking) and a measure of academic adjustment (the Who Am I?). Children’s socio-emotional adjustment at the end of the year was predicted by children’s feelings about school scenarios and their relationship with the teacher. These results support previous research
identifying the importance of developing positive teacher-child relationships early in the school year (Birch & Ladd, 1997; Pianta & Steinberg, 1992), and also points to the importance of children developing positive attitudes toward school early in the school year to increase the likelihood that they will feel positive at the end of the year. Child characteristics, such as age, gender and language ability, did not have a significant predictive effect on children’s socio-emotional adjustment to school at the end of the school year. This suggests that children are not disadvantaged by their age, gender or language ability in how they adapt emotionally over the first year of school.

On the other hand, children’s academic adjustment to school relied heavily on child characteristics of age, gender and language ability, as well as their self-directedness in the classroom. Based on these results, academic adjustment over the school year would be less likely to change, which means that children who start school showing difficulty adjusting to the academic expectations, are very likely to have problems adjusting to this facet of school at the end of the year. The link between child characteristics and academic adjustment has been previously reported by Schoen and Nagle (1994) who note the connection between children’s temperament scores and academic adjustment in the first year of school. Although temperament wasn’t included in the final regression analyses testing the overall model, it was found to be predictive of other adjustment outcomes in earlier regression tests, and was significantly correlated with children's language ability in Chapter 6.

It was expected that the quality of the classroom environment would have a significant predictive effect on children’s socio-emotional and academic adjustment to school over the first year; however, this was not the case. Classroom quality did not impact on any adjustment outcome at the end of the year. Further exploration of classroom effects on child adjustment outcomes, drawing on a larger number of classrooms, will be important in future studies examining children’s adjustment to school over time.

9.2.2 Implications of findings

The implications of this study for future research, the combination of qualitative and quantitative methodology, and school practices and policies will be discussed in this section of the chapter.

Implications for research

The findings of this study have implications for research not only in the area of school adjustment, but also in the areas of school readiness and school transition. As
school adjustment is influenced by whether or not children are ready for school and how successful their transition is, findings from school adjustment research have important contributions to make on school readiness and transition research.

The predictive effects that have been reported for children’s feelings about school scenarios, the quality of the classroom environment and the relationship they have with their teacher on emotional adjustment at the end of the year, have implications for future transition and adjustment research in the areas of social and emotional development. How children felt about school at the beginning of the year was predictive of the degree to which they liked school at the end of the year. Thus, focusing on helping children feel more comfortable with all aspects of school including in-class, out-of-class and peer components, and encouraging children’s self-confidence with coping in school situations is crucial. A continued focus on teacher’s being aware of children’s feelings about school over the first year, and how the quality of the classroom environment effects social and emotional outcomes for children is also imperative.

The involvement of children as active participants in research which immediately concerns them is important. This study has been successful in illustrating that children can offer valid and reliable perspectives about starting school as long as research methods are relevant and tailored to the particular needs of young children. The use of innovative methods to gather children’s views in the current study has provided an example for future research to employ qualitative and quantitative methods in combination, to provide a rich picture both of a statistical and qualitative nature. This allows the data to provide an individual perspective of children’s adjustment over the first year. Although children’s adjustment to school is a very individual process, researchers often wish to find out what the process is like for a large number of children, so that research evidence can be used to argue for changes to policy. Education practices can then be improved to meet the needs of the majority of children. Understanding what the process is like for children as individuals is equally as important as understanding the process for a large number of children. Although a focus on the impact of the group is important when examining issues affecting the majority of children, it is important to remember that individual children make up these groups. It is at the level of the individual child where changes take place regarding children’s emotional and social development, and it is at the level of the school and classroom, where changes take place regarding larger groups of children; thus, both provide valuable insights.
Further research to look at the personal, interpersonal and institutional aspects of school and the impact these aspects have on children’s adjustment to school is important. In the present study children’s adjustment was explored at the level of specific scenarios that were typical of schools. Locating assessment in familiar, concrete examples was able to show changes in children’s adjustment more easily than is possible with ‘global’ assessments of adjustment. An important part of understanding how children cope with specific aspects of school, and what can be done to help children develop constructive coping strategies for managing everyday school situations, may be tied to specific components of school experience. Identifying the specific aspects of school that elicit more stress from children was been an important outcome of this research, which has implications for future directions in research.

Although starting school had been mentioned in the stress and anxiety literature as a time in young children’s lives which may bring about some degree of stress response, until now, we did not know exactly what it was about starting school that was stressful for children. Further research into the daily stresses children are faced with and how they cope with these pressures will be an important step forward in understanding why some children adjust to school better than others and why some display a better sense of wellbeing at the end of their first year of school.

**Implications for Methodology**

The methodology used in the current study included both qualitative and quantitative techniques successfully. For the PMSSW, children’s interview data, which was qualitative in nature, was coded and analysed using statistical methods, allowing the individual responses from a large number of children to be combined to give an overall picture of social and emotional adjustment to school. Results reflected those found in previous studies both in Australia and internationally (e.g., Dockett & Perry, 2005, Einarsdóttir, 2003; Bröstrom, 2003), but also identified new issues for children in the process of adjustment, such as how their strategies for coping with school can effect adjustment and which specific influences impact on their adjustment over time. For other adjustment and interpersonal relationship measures, quantitative methods were also used successfully and provided a significant amount of information on children’s, teachers’ and parents’ views of the adjustment process.

Few researchers have used a combination of qualitative and quantitative methods to examine children’s adjustment to school. Exceptions to this include Dockett
and Perry (2005), who have used many innovative methods to engage children and encourage reliable views on the process of making the transition to school.

The development and successful use of a conceptual framework in examining aspects of school adjustment over time also has implications for methodology in the field. The hypothesised predictive effects of child and family factors on early and later interpersonal factors and early and later child adjustment factors were demonstrated in regression analyses. Classroom factors also had a predictive effect on early and later school adjustment outcomes and early and later interpersonal outcomes. The two overlapping areas of school adjustment and interpersonal relationships were separated in the model as the literature has identified that although they are complementary and closely inter-related, they are also significant areas in their own right which can be addressed separately by teachers and schools.

**Implications for Schools**

The current situation in most New South Wales schools requires that teachers and schools plan and implement their own transition to school programs and orientation activities. In recent times, transition to school initiatives have been promoted by the state Department of Education but implemented by individual schools. In some cases, purpose-built preschools have been constructed adjoining public schools so to make the transition to school smoother for the children who attend these preschools.

Findings in the current project have shown that the quality of interpersonal, instructional and management aspects of the classroom environment do have an effect on children’s emotional adjustment to the first year of school. This is a new finding in adjustment research, which has only previously demonstrated the link between classroom quality and social and academic adjustment to school. In addition to this, the relationship children have with their teachers has again been demonstrated to be linked to children’s emotional, social and academic adjustment to school in the current study.

Both of these findings have implications for schools and teachers. Teachers are in the position to make changes to the quality of their classrooms to ensure that it is not only a socially supportive environment, but also a place where children are given the opportunity to direct their own learning and undertake activities which are relevant and significant. Teachers are also in the position to understand the relationships they have with individual children in their class, and are able to work on improving negative relationships.
In sum, the implications of this research are wide-ranging and hold key directions for further research in the areas of school adjustment and transition. An important understanding is that it is not simply that children should be included in adjustment research, but that appropriate methods can be developed that show how to include children’s perspectives about school and their teacher.

9.2.3 Limitations of Study

This research has a small number of potential limitations which may affect the findings. Limitations to the generalisability of the results in this study are evident in the location of this study and the limited cultural background of the participants. Research was conducted only in New South Wales public schools within and around a large regional town in New South Wales, Australia. Only two children had a language background other than English, the remaining children were from either an Indigenous (13%) or non-Indigenous (85%) cultural background. In addition to this, only one teacher was from an Indigenous Australian cultural background. Although this had implications for the generalisability of data for urban areas in Australia, this sample does represent many regional locations in Australia.

The size of the sample for this study also meant that some limitations were evident. Although the number of children (N = 105) allowed a more individual analysis of children’s responses to the PMSSW, it also provided limitations to the type of statistical methods used to analyse data across the group, and limited the generalisability of the results.

Hierarchical regression analyses were limited by the number of parents who completed take home questionnaires. With a larger sample, the number of variables acceptable in the model could be increased. This would also allow the regressions to cover a wider range of predictive factors, which could increase the number of significant findings.

The number of classrooms in the current study (N = 16) provided a limitation to using the Classroom Observation Instrument – Kindergarten (COI-K). Having only 16 different scores to run in regression analyses using this measure, could limit the significance of this measure in predicting to outcomes at the end of the year. Having said this, it was interesting that despite the small number of classrooms there was wide variation the quality of each classroom. Using this measure in a larger number of classrooms in future research looking at adjustment to school will provide a more
comprehensive picture of the impact a quality classroom has on children’s emotional, social and academic outcomes over their first year.

The research undertaken has provided a solid foundation for further work to be conducted in the area of emotional adjustment to school, with a larger sample of children, teachers and parents.

9.2.4 Concluding Remarks

This paper has described the development, presentation, and scoring of children’s responses to the Pictorial Measure of School Stress and Wellbeing (PMSSW). Results from approximately 100 children who were interviewed on two occasions during the kindergarten year have demonstrated that this measure is an appropriate tool for assessing children’s perceptions of school-related stress and wellbeing. Scenarios depicted in the PMSSW were developed from discussions with kindergarten children. Not surprisingly, therefore, a number of the illustrations in the PMSSW were similar to the places chosen by children in Dockett and Perry’s (2003) report of what children selected as being important at school. The PMSSW included scenarios in the classroom, the playground, the toilets, and the canteen, all of which were also identified by Dockett and Perry. They were also similar to the “critical incidents and commonplace events” used by Fabian (2002, p. 132) in her work on supporting transition to school. Fabian also notes that the use of pictorial representations and a familiar “story” provides a means for engaging children, by making questions about school less hypothetical. This was indeed the case in the current study, with the projective techniques utilised providing a broad insight into children’s views of school, their relationship with their teacher and peers, and their strategies for coping with stressful and non-stressful school situations.

Overall, initial results show that the PMSSW can make an important contribution to furthering understandings of children’s experience of school stress as they adjust to the first year of school. The findings from this study indicate that the PMSSW can be used to generate more comprehensive research into stresses associated with adjusting to school through gathering and analysing information from individual children.

This research contributes to knowledge in the field of school adjustment and educational psychology in a number of ways. The design and development of a new measure of children’s perceptions of school experiences proved to be a valid means of explaining individual children’s experiences of adjusting to the first year of school.
Children’s perceptions of their early school experiences, their feelings toward the teacher and their strategies for coping with everyday school situations have not been previously gathered concurrently. The use of a measure which encourages children to think deeply about specific school situations is unprecedented and has provided more meaningful information, than rating scales for example, on what children actually experience during their adjustment to school over time.

The finding that children report different feelings toward school than teachers report about children is consistent with findings by Dockett and Perry (2003) and adds to the body of evidence supporting the need to collect children’s perceptions of the adjustment process. Children’s feelings about school, as measured by the PMSSW, and teacher's ratings of children’s school liking at either the beginning or end of the year were not associated. Parents were slightly more likely to understand how children were feeling and how they were adjusting to school, evidenced by the correlation between parents’ adjustment ratings and children’s school liking scores at the end of the year. These results have important implications for methods used in future research.

The development of a process model of child adjustment across the first year of school was another significant feature of this study. This model not only provided a theoretical framework on which to design the study, but it also provided a practical basis on which associations between aspects of adjustment could be examined and tested. Findings from testing the predictive effects of child and family factors, and interpersonal relationship factors on school adjustment outcomes at the end of the year also have important implications for future research, as well as implications for schools.

A continued focus on including children as active participants in research on issues of direct importance to them is essential to understanding the complex process of adjusting to school. Equally important is the need to continue drawing on the perspectives of significant adults in children’s lives to develop deeper understandings of the way children interact within the contexts of home and school, throughout the adjustment process.
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