Teacher-child Relationships in Preschool Period: The Roles of Child Temperament and Language Skills

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Abstract

The aim of this study was to determine how children's temperament and language skills predict the effects of teacher–child relationships in preschool. Parents and preschool teachers completed three questionnaires: The Student-Teacher Relationship Scale, the Marmara Development Scale and the Short Temperament Scale for Children. The relational survey method was used in this study. The sample consisted of 195 preschool children. According to the results, a negative significant relationship was found between the teacher-child relationships scores and the reactivity sub-dimension of temperament. Also, there are positive significant relationships between teacher-child relationship scores and language skills. In addition, both the reactivity sub dimension of temperament and language skills demonstrate a predictor effect on the teacher-child relationships. Reactivity was the most important temperament trait factor affecting relationships.

Keywords: Teacher-child relationships, language skills, temperament, preschool period.

Introduction

Preschool education has been deemed a critical period for cognitive development, school preparation and success, language development and learning motivation, as well as for developing children's social and emotional competence (Essa, 2003; Hamre & Pianta, 2001; Huffman, Mehlinger, & Kerivan, 2000; Vasta, Miller, & Ellis, 2004). During this period, teachers are the second most influential force in the development of children, after their parents. The teacher is defined as the person whom a child will face and who will influence them in their life the most after their relatives/parents. The teacher has a critical role in causing the child to enjoy school and in introducing work habits in the child (Pianta, 1999).

Relationships are important for the children. Studies have been conducted that deal with the teacher-child relationship within the context of the characteristics of children,

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teachers and schools (Burchinal et al., 2002; Howes et al., 2000; Peisner-Feinberg et al., 2001; Pianta et al., 2002). Research has shown that the quality of teacher-child relationships influences not only children's social and emotional development, but also their relationships with peers, their academic successes and their status within their classes at school (Baker, 2006; Decker, Dona, & Christenson, 2007; Garner & Waajid, 2008). O'Connor and McCartney (2007) investigated teacher-child relationships from the start of kindergarten to third grade in primary school. Results of the study showed that quality teacher-child relationships affect a child's academic success even the child became a third grade student. Confident relationships that the child is able to create constitute the potential for bettering their adjustment at school, along with their social and academic success. In this way, the child also tends to establish similarly confident and positive relationships with other notable adults that they will interact with in future (Baker, 2006; Meehan et al., 2003). Research has shown that an earlier positively-constituted teacher-child relationship can serve as an indicator of the quality of that child's relationships with their future teachers (Howes & Hamilton, 1992; Howes, Phillipsen, & Peisner-Feinberg, 2000; O'Connor & McCartney, 2006).

Teacher–child relationships and outcomes

There is general consensus on the fact that the quality of preschool education is dependent on the quality of teacher-child relationships (Kontos & Wilcox-Herzog, 2002). The teacher-child relationship has been established as an outcome of preschool children's interactions with their teachers. Teacher-child relationships not only contribute positively to child development, but also serve as aninfluential social source on the children's obtainment and development of social and academic skills (Baker, 2006; Birch & Ladd, 1997; Hamre & Pianta, 2001; Pianta, Steinberg, & Rollins, 1995; Pianta et al., 1997; Pianta, 1999; Valiente et al., 2008). Closeness is referred to as one of the most important concepts related to quality teacher-child relationships. In this instance, 'closeness' refers to the cordial and open communication established between child and teacher (Pianta, Hamre & Stuhlman, 2003). The closer a child's relationship is with their teacher, the more secure the child will feel with that teacher, thereby benefitting from the teacher as a firm basis and source for exploring learning opportunities in class. Children who have close relationships with their teachers tend to listen more, become more focused and learn much better (Pianta, 1999). Higher levels of teacher-child cordiality is correlated with children's greater success (for instance, higher academic preparedness, a more inspired love for their schools, higher language and mathematical skills, as well as more positive social behaviours). At the same time, such positive relationships are also correlated with lower withdrawal levels and lower aggressive, antisocial and hyperactive behaviours in future (Birch & Ladd, 1997; Buyse et al., 2009; Howes, 2000; Palermo et al., 2007; Peisner-Feinberg et al., 2001; Thijs, Koomen, & Van der Leij, 2008). Cordially and confidently established relationships between children and their teachers also provide support for the children to display positive behaviours towards their peers (Colwell & Lindsey, 2003).

Numerous studies within the scope of the literature have shown that the quality of teacher-child relationships are of critical importance to learning output throughout the childhood period (Baker, Grant, & Morlock, 2008; Birch& Ladd, 1997; Burchinal, Peisner-Feinberg, Pianta, & Howes, 2002; Curby, Rimm-Kaufman, & Ponitz, 2009; Ladd & Burgess, 2001; Myers & Pianta, 2008; Pianta & Stuhlman, 2004). While positive teacher-child relationships play a role in supporting children's successes, negative teacher-child relationships hamper the achievements of the children and can cause personal problems (Birch & Ladd, 1997; Burchinal, et al., 2002; Hamre & Pianta, 2001; Helker, Schottelkorb & Ray, 2007; Howes et al, 1994; Lerner, Lerner, & Zabski, 1985; Pianta, 1999). Negative teacher-child relationships are therefore seen as risk factors (characterized by higher

conflict and dependency and lower cordiality) that operate against children's achievements in school (Hamre & Pianta, 2001; Ladd & Burgess, 2001; Pianta, Steinberg, & Rollins, 1995; Pianta, 1999). A relationship full of conflict may give rise to anxiety and fear in the child about going to school. The child will as a result be unlikely to seek the help of their teacher when problems arise (Howes & Ritchie, 2002).

Predictors of teacher–child relationships

The quality of the teacher-child relationship depends on both the characteristics and expectations of the teacher, as well as on the characteristics of the child (Buss, Gingles, & Price, 1993; Rudasill, Rimm-Kaufman, Justice, & Pence, 2006; Saft & Pianta, 2001; Stuhlman & Pianta, 2002). The characteristics of the child therefore also contribute to the quality of the teacher-child relationship (Eisenhower et al., 2007; Hamre & Pianta, 2001; Ladd, Birch, & Buhs, 1999). Children who display anti-social behaviours such as aggression and withdrawal generally tend to have negative relationships with their teachers. Children's anti-social behaviours in school are linked to higher conflict and lower cordiality within the teacher-child relationship (Ladd et al., 1999). According to the results of a study by Eisenhower et al. (2007), in which they observed the quality of teacher-child relationships, it is more likely for children who display aggressive and withdrawn behaviours to experience more conflict with their teachers, while also displaying lower cordiality and higher dependence.

Impact of Temperament

Temperament is an individual's biologically-based style of responding to people, events and situations. Temperament comprises the individual biological differences arising from the processes of emotion, behaviour and attention, and can be observed beginning in the earliest periods of infancy (Rothbart & Bates, 1998). Its multi-dimensional structure appears during periods of infancy and childhood (Kagan & Fox, 2006; Rothbart & Bates, 2006; Thomas & Chess, 1977). Thomas and Chess (1977) were among the first to highlight the importance of children's temperamental characteristics in many aspects of their development. Thomas and colleagues (1963) have been established as pioneers in the field of childhood temperament research. The New York Longitudinal Study identified that each child's behavioral style depends on nine different temperament characteristics or traits and three basic temperament types. The nine temperament traits that have been defined by the researchers are: activity, rhythmicity, approach/withdrawal, adaptability, intensity, mood, persistence, distractibility and sensory threshold (Zentner, & Bates, 2008).

Characteristics like intensity and level of activity, persistence and behavioural inhibition may likewise contribute to teacher-child relationships (Rothbart & Bates, 1998). Research has shown that children who are not withdrawn tend to be socially more competent and therefore enjoy more interaction with their teachers compared to their less sociable peers. Additionally, these children tend to adapt to kindergartens more easily and are characterized as being more verbally and academically successful by their teachers, compared with their more shy peers (Patrick, Yoon, & Murphy, 1995; Rimm–Kaufman et al., 2002; Rimm-Kaufman & Kagan, 2005). According to Rydell, Bohlin and Thorell (2005), more withdrawn children are more likely to develop lower cordiality traits and conflict in their relationships with their teachers compared to their less shy peers; this may be a consequence of less interaction between these children and their teachers. According to the opinion being supported within the scope of various studies conducted on the temperaments of children in school environments, teachers' behaviour is linked to the temperaments of the children they teach. Within the scope of a study conducted by Paget, Nagle and Martin (1984), whether the child has an easy temperament (compliant, social,

persistence) or difficult temperament traits (withdrawn or reactivity) can be viewed as a predictor of interactions within their classes. Children with easy temperaments demand less praise from their teachers. Conversely, teachers are prone to pay more attention to children with difficult temperaments. Keogh and Burstein (1988) have similarly discovered that teachers tend to maintain more positive communications with children with easy temperaments, compared to children with difficult temperaments.

The role of Language Skills

Language and communicative skills contribute considerably to children's academic and social achievements in both their preschool years and in the years thereafter (Rudasill, 2011). Language and communicative skills are of vital importance in view of socialization and interpersonal relations throughout the preschool period, during which social communications and interactions occur more often. Lack of language skills, social incompetence and maladaptive behaviours are correlated with depression and anxiety (Bonica et al., 2003; Durkin, 2009; Hay, Payne, & Chadwick, 2004).

Research results have put forth that the quality of teacher-child relationships is linked with children's emotional, social and language developments (Birch & Ladd, 1997; Burchinal, et al., 2002; Hamre & Pianta 2001; Howes, 2000; Mitchell-Copeland, Denham, & DeMulder, 1997; Peisner-Feinberg, et al., 2001). Teacher-child relationship quality is predicted by the interaction taking place within the scope of children's language abilities (Rudasill et al., 2006). Teacher-child interactions can assist in elaborating children's opinions and speaking skills (Dixon & Smith, 2000). Dickinson and Smith (1994) points out that teacher-child communication is positively correlated with the language development of the child.

The teacher-child relationship is very important for children. Children spend approximately five to eight hours a day with a teacher for almost 11 months. Since the teacher-child relationship is important for the child's development, it is therefore also important to understand the mechanisms that may affect the success of this relationship. A limited number of studies have been conducted in Turkey among children in terms of teacher-child relationships, temperamental characteristics and language skills (Gulay, 2012; Kıldan, 2011; Oneren Sendil, 2010). For this reason, studies on temperamental characteristics and language skills may be useful in this context and one way to increase the quality of preschool education is to conduct numerous and various studies in this specific field. The aim of this study is to investigate the effect of children's temperamental characteristics and language skills on teacher-child relationships. Given the importance of communication in classroom interactions and relationship building, I believe that both temperament characteristics and language skills will contribute to teacher–child relationship quality. For this purpose, the following questions are pertinent:

1. Is there a relationship between teacher-child relationships, temperament traits and the language skills of preschool children?

2. To what extent do children's temperament traits and language skills predict the teacher–child relationship?

Method

Model

This study employed a relational survey model. The relational survey model aims to determine the presence and level of change variance between two or more variables (Karasar, 2005).

Participants

In the present research, participants comprised 195 preschool children (89 girls and 106 boys) with normal development from five preschools located in the city centre of Usak Province in Turkey. The sample group for the study was selected using a random sampling method. The sampling method was applied by drawing lots among the names of kindergartens in the city centre of Usak, resulting in three schools being accepted for participation in the study. The mean age of the children participating in the study was five years, three months.

The study was conducted using data collected from 195 mothers and 12 teachers. All the teachers involved were women, ranging in age from 25 to 54, with teaching experience ranging from three to 27 years; teachers were graduates from four-year universities, having been awarded bachelor's degrees; 85 of the mothers were housewives, while 110 of them had different occupations. Among the mothers, 16.5% had elementary school degrees, while 83.5% reported high school and higher education. On the other hand, socioeconomic status was determined on the basis of information gathered from parents' professions. Socioeconomic status ranged from lower-middle to upper-middle class. The majority of parents had mid-level socioeconomic status (58.8%). 17.3% had low socioeconomic status and 23.9% had upper-level socioeconomic status.

Measures

Student-teacher relationship scale (STRS): the original questionnaire consisted of 28 items, each of which was evaluated by a five-point Likert-type scale (Pianta, 1996) and was designed to measure teachers' perceptions of their relationships with a particular student, the student's interactive behaviour with their teachers, and teachers' beliefs about their students' feelings toward them. The teacher rated his or her relationship with a particular student by indicating to what extent a particular item was applicable to that relationship. Responses ranged from 'definitely does not apply' (1) to 'definitely applies' (5). The internal consistency coefficient for the original scale was determined as .89 (Chung, 2000). The Turkish version of the STRS was adapted by Kıldan (2008). A Turkish version of the questionnaire was created from 19 items that scaled teacher-student relationships. The internal consistency (as reported by Kıldan) for the entire scale was .90. For the present study, the internal consistency coefficient for the scale was .74.

The Marmara Development Scale was developed by Oktay and Bilgin-Aydın in 2002 and used to measure the skills of children aged between 0 and 6 in terms of cognitive, language, social, emotional, and physical areas of development. Since the current study focuses on language skills, the language development subscale of this scale was used. For the 76 items contained in the subscale, the respondents were asked to choose either never, rarely, sometimes, frequently, or always, which scored from 1 to 5, respectively. The total score for the scale provided a measure for the overall Turkish language skills of the children, as observed by their teachers. The internal validity (reliability) of the language development subscale was determined as .97. For the current study, the internal consistency coefficient for the scale was .98.

In order to measure the temperamental characteristics of the child, the Turkish version (Yağmurlu & Sanson, 2009) of the Short Temperament Scale for Children (STSC) (Prior, Sanson, & Oberklaid, 1989) was completed by the mothers. Mothers evaluated their children's temperamental characteristics on the basis of a Likert type scale with six frequency choices. The scale consisted of 30 items with four subscales that measured approach/withdrawal, persistence, rhythmicity and reactivity dimensions. The scale tapped four temperamental dimensions: reactivity (*N*= 14 items) (e.g., 'If my child resists some activity such as having [their] hair brushed, [they] will continue to resist it for months'); persistence (*N*= 14 items) (e.g., 'My child is unwilling to leave a game or activity that he/she has not completed');approach/withdrawal, (*N*= 14 items) (e.g., 'My child is shy at first when meeting new children'); rhythmicity (*N*= 14 items) (e.g. 'After my child is put to bed at night, [they take] about the same length of time to fall asleep'). The internal consistency scores for the original version of the scale were .66 for approach, .75 for inflexibility/reactivity, .75 for persistence and 0.51 for rhythmicity (Prior, Sanson, & Oberklaid, 1989). In Yağmurlu and Sanson's study (2009), internal consistency was .80 for approach/withdrawal, .77 for reactivity, .48 for rhythmicity and .76 for persistence. Internal consistency for the current study was as follows: approach/withdrawal showed a Cronbach's α of .67, persistence showed .72, rhythmicity registered at .57 and the reactivity subscale displayed a Cronbach's α of .68.

Procedure

Children, parents and teachers were invited to participate in the study through the National Education Directorate in Usak Province, Turkey. Teachers and parents were contacted directly by the researcher and were thoroughly informed about the content of the present investigation. Parents' written consent was obtained before children were asked for their voluntary participation in the research. The STSC in this study was completed by the mothers of children. The Marmara Development Scale and STRS were completed by the teachers of the participating children. The mothers and teachers of children were informed about the objective of the research and measurement tools prior to the data collection process. Teachers completed the forms in parallel with their general observations of the children for a period of approximately seven months.

Data Analysis

Data were analysed using SPSS version 20.0. The data were screened for erroneous or missing values and outlier values prior to data analysis. The study was conducted using 195 scales following the exclusion of questionnaires that had been completed incorrectly. The Pearson product-moment correlation coefficient and multiple regression analyses were employed to analyse the data. The Pearson product-moment correlation coefficient technique was used to reveal the relationship between teacher-child relationship, temperament dimensions and language skills. The multiple regression method was used to determine the predictive effect of each temperament dimension and language skill variable together on the teacher-child relationship.

Results

Table 1 shows that there was a significant negative relationship between teacher-child relationship score and the reactivity sub-dimension of temperament (*r*=-.26, *p*<.01). In other words, it can be said that as the teacher-child relationship level increases, children's reactivity levels decrease. Moreover, no significant relationship was found between the teacher-child relationship and the approach/withdrawal, persistence and rhythmicity temperament dimensions (*p*>.01). There was also a positive significant relationship between teacher-child relationship scores and language skills (*r*= .20, *p*<.01).

Table 1. *Means, standard deviations, and correlation coefficients for teacher-child relationship, temperament dimensions and language skills*

Variables	Means±SD	1	2	3	4	5	6
Teacher-child relationship	51.26±8.32	-					
Approach/withdrawal	26.37±4.94	.10	-				
Persistence	25.05±5.10	.00	.29**	-			
Rhythmicity	25.87±4.70	-.10	.28**	.31**	-		
Reactivity	29.73±5.85	-.26**	-.02	-.10	-.20**	-	
Language skills	284.99±51.23	.20**	.17**	.23**	.08	-.08	-

N= 195; **p<.01

Table 2. *The results of the multiple regression analysis conducted in order to predict the teacher-child relationship*

Variables	R	R^2	F	sd	B	$β$	t
Approach/withdrawal	.11	.01	2.230		46.514	.10	14.366
Persistence	.00	.00	.015	1/194	50.904	.00	16.965
Rhythmicity	.10	.01	2.183		56.113	-.10	16.832
Reactivity	.47	.27	14.596		40.053	.27**	.027
Language skills	.33	.11	8.757		41.615	.21**	12.558

N = 195, ** *p* <.01

According to multiple linear regression analyses (Table 2), the reactivity dimension, a temperament variable of children, predicts 27% of the variance in the teacher-child relationship ($F_{(1, 194)}$= 14.596, *p*<.01). On the other hand, the language skills of children predicts 11% of the variance in the teacher-child relationship ($F_{(1, 194)}$= 8.757, (*p*<.01). Furthermore, it was found that the approach/withdrawal, persistence and rhythmicity temperament variables in children were not significant predictors of teacher-child relationships.

Discussion

The purpose of this study was to determine how children's temperament traits and language skills predict the effects of teacher-child relationships in preschool. Within the scope of the first sub-problem of the research, an answer was sought to the question of whether there is any correlation between the teacher-child relationship and children's temperamental traits and language skills. As an outcome of the respective analyses conducted, a negatively meaningful correlation was found between teacher-child relationship and the temperamental trait of reactivity in children. In other words, as the teacher-child relationship scores increase, child reactivity scores decrease. Compared to children with low reactivity, teachers may stay apart or think conflicts when dealing with high reactivity children. Approach, persistence, and the rhythmicity sub dimensions in the temperaments of children had no significant relationship with teacher-child relationships. On the other hand, a positively meaningful correlation was found between the teacher-child relationship and children's language skill scores. As teacher-child relationships improve, children's language skills increased in parallel (Howes & Hamilton, 1992; Kontos & Wilcox-Herzog, 2002; Rudasill et al., 2006). In the second part of the research, an answer

was sought to the question of whether the temperamental characteristics and language skills of children could be viewed as predictors of teacher-child relationships. The result of the study is the better way to convey the meaning. The temperamental characteristics of reactivity, along with language skills, were found to be meaningful predictors for the teacher-child relationship. It was found that the approach, persistence and rhythmicity sub-dimensions of temperament were not significant predictors of teachers-child relationships. Other studies conducted on the subject show similar results to those obtained by the present study. Some temperament traits (such as reactivity) have been singled out as a mediators between children's behaviour and their relationships with their teachers (De Schipper, Tavecchio, Van Ijzendoorn, & Van Zeijl, 2004; Griggs et al., 2009). For example, reactivity was found to be an important temperament trait affecting teacher-child relationships in classrooms. A child's temperament has been established as a significant factor affecting certain components of teacher-child interactions and teacher-child relationships, according to some studies (Flynn, 2000; Oren, 2009; Thomas & Chess, 1977). Flynn (2000) concluded that certain temperamental characteristics may have an impact on teacher-child relationships. Among temperamental characteristics, reactivity, persistence and distractibility have been singled out as having the biggest effect on teacher-child relationships. Pullis and Cadwell (1985) found reactivity to be a temperamental factor linked with the in-class decisions of teachers. Rudasill & Rimm-Kaufman (2009) found that children's temperamental characteristics have an impact on the quality of the teacher-child relationship. While such temperamental characteristics as effortful control may positively affect teacher-child relationships, temperamental characteristics such as anger may in turn impede teacher-child relationships (Justice, Cottone, Mashburn, & Rimm-Kaufman, 2008; Rudasill et al., 2006; Rudasill & Rimm-Kaufman, 2009; Rydell et al., 2005).

According to the present study result, children's language skills have a predictor effect on the teacher-child relationship. Burchinal et al. (2002) found teacher-child cordiality to be a predictor of better language skills among African-American children. Birch & Ladd (1997) analysed the correlations between teacher-child relationships and kindergarten children's adaptation to school (enjoyment, participation and success). Children in conflicting relationships with their teachers have been found to enjoy school less and to attend less in-class activities. Such children have further been found to achieve lower visual and language scores than children in close relationships with their teachers. In another study, closeness in teacher-child relationships was found to be correlated with language scores and with cognitive and social capabilities (Peisner-Feinberg & Burchinal, 1997; Peisner-Feinberg, et al., 2001). As a consequence of their analyses on the correlation between the quality of preschool teacher-child interactions and children's language, academic, and social learning outputs, Burchinal et al. (2008) ascertained that quality teacher-child interactions are among the major predictors for the academic, language-learning and social capabilities of children. Curby et al. (2009) examined the correlation between teacher-child relationships, children's achievements in kindergarten and their word-reading and phonological awareness. As a result of their research, it has been ascertained that the support provided by the teacher is correlated with increasing vocabulary and language success. Studies on preschool teacher-child relationships have shown that children's recipient language scores are correlated with the quality of the aforementioned relationships (Burchinal, Peisner-Feinberg, Pianta, & Howes, 2002). Children in quality teacher-child relationships earned higher scores from standard language and vocabulary tests. Children who received less teaching and emotional support from their teachers were less successful by meaningful ratios in the standard reading tests, compared to their risk-free peers. However, upon receiving the respective support from their teachers, children

at risk showed performances similar to those of children at lower risk in view of language development and reading success (Hamre & Pianta, 2005).

It should not be overlooked that teacher-child relationships in all age ranges need to be maintained in an orderly manner and that particular attention needs to be paid to supporting education (Thijs, Koomen ve Leij, 2008). Preschool teacher-child relationships play an important role in foreseeing the future relationships of the children in question (Howes, Hamilton, & Matheson, 1994). In conclusion, cordially and confidently established teacher-child relationships can be significantly influential on all development fields of the children in question. For this reason, improving teacher-child relationships is a critical issue. However, first, the factors that have an impact on these relationships need to be addressed and the implications for practice and research should be considered.

This study had certain limitations. First, assessments of child temperament traits and teacher–child relationship quality were based on the perceptions of parents (for temperament) and teachers (for teacher-child relationship quality). Second, this study addressed only the characteristics of children. The characteristics of teachers, which may also impact teacher-child relationships, should also be considered. Third, this study was conducted using a limited sample group. Sample groups should be expanded in future studies.

Several suggestions emerge from the results of this research that may be useful for future studies. For future research, extending the study by using a larger, more diverse research sample may increase its statistical power. Second, a longitudinal study might also be conducted in future. Furthermore, the results of this study show that child characteristics are important for classroom processes. Therefore, the impact of specific child attributes, such as temperament, on the effectiveness of classroom interventions should also be investigated in future studies. By understanding that each child's temperament is different, teachers will be able to plan individualized teaching approaches specific to each child.

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