

## Child-Teacher Relationship Quality, Homework Problems, Behavior Problems, and Social Adjustment in Students with Learning Disability: A Path Analysis

DOI: 10.22098/JPC.2023.12200.1151

Yasser Rezaour Mirsaleh<sup>1</sup>; Zobeydeh Dehghan Manshadi<sup>2\*</sup>; Raziye Amini<sup>1</sup>; Mohammad Amin Dehghan Manshadi<sup>3</sup>

1. Department of Counseling, Faculty of Humanities & Social Sciences, Ardakan University, Ardakan, Iran.
2. Iranian Academic Center for Education, Culture & Research, Fars Branch, Behavioral Sciences Group, Shiraz, Iran. **Corresponding Author:** [zobeydemanshadi@gmail.com](mailto:zobeydemanshadi@gmail.com)
3. Department of Occupational Therapy, Faculty of Rehabilitation, Shahid Beheshti University of Medical Sciences, Tehran, Iran.

### Abstract

Child-teacher relationship is one of the determinants of students' behaviors, especially those with specific problems, which in turn can be affected by other factors. The present study was conducted to investigate the mediating role of homework problems in child-teacher relationship, behavior problems, and social adjustment amongst students with learning disability. Among the elementary students with learning disability referred to the learning disability education centers affiliated to Yazd Education Organization, Iran, 231 ones were selected randomly. The data were gathered using the Student-Teacher Relationship Scale, Teacher-Child Rating Scale, and Homework Problems Checklist and were then analyzed by Path analysis. The findings showed that homework problems were positively correlated to child-teacher conflict and negatively associated with child-teacher closeness among Learning Disabled (LD) students. Overall, the child-teacher relationship affected homework problems, eventually leading to behavioral or social adjustment problems. In other words, homework problems played a mediating role in the relationship between the quality of child-teacher relationship and LD students' behavioral problems and social adjustment. Hence, improving the child-teacher relationship can reduce homework problems and, as a result, promote social adjustment among LD students.

**Keywords:** Behavioral Problems, Child-teacher Relationship Quality, Homework Problems, Learning Disability, Social Adjustment

## Keypoints:

- Homework problems were positively correlated to child-teacher conflict and negatively associated with child-teacher closeness among Learning Disabled (LD) students.
- child-teacher closeness had significantly negative and positive effect on behavior problems and social adjustment, respectively.
- Homework problems played a mediating role in the relationship between the quality of child-teacher relationship and LD students' behavioral problems and social adjustment.

## Introduction

The percentage of students with learning disability is increasing in regular classes, especially in nursery and elementary schools (Blacher et al., 2009). Students with learning disorder comprise the largest group of students receiving special education (Cortiella & Horowitz, 2014). The prevalence of the disorder approximately ranges from 1% to 30% in 59 countries, accounting for 64% of the world's population. In Iran, 4% of people suffer a from of learning disorder (World Health, 2011). Specific Learning Disorder (SLD) refers to a disorder that involves difficulty in reading, speaking, or mathematics (Association, 2013). Research in this area has addressed various aspects of these children's problems including behavioral and social dimensions.

### *Child-teacher relationship in students with learning disability*

According to the Self-determination Theory, relatedness is one of the basic psychological needs, which refers to the desire for strong and stable interpersonal relationships, connection with others, and being accepted by them as well as a sense of belonging and caring for others (Tanis Bryan & Nelson, 1994). Teacher is usually the first adult other than parents to build this supportive relationship with a child (Raufelder et al., 2013). The child-teacher relationship is one of the most important relationships to help children, especially those with specific problems. A healthy relationship can allow teachers to identify children's psychological, social, and educational problems. Studies based on the Attachment Theory usually distinguish three dimensions of the child-teacher relationship, namely closeness (i.e., openness and intimacy in the relationship), 2. conflict (i.e., negativity and compulsion in the relationship), and 3. dependency (i.e., cohesive and completely dependent behavior of the child) (Robert C Pianta, 2001). It was reported that students with learning disability had a little experience of closeness to their teachers (Zee et al., 2020a) and received less acceptance and emotional support from their teachers (Al-Yagon & Mikulincer, 2004). It seems that teachers do not have a positive attitude towards

### Child-Teacher Relationship Quality, Homework Problems, Behavior Problems, and Social Adjustment in Students with Learning Disability: A Path Analysis

entrance of Learning Disabled (LD) children in normal schools (Mysore Narasimha, 2016). A previous study showed that high school students with learning disabilities considered their teachers as a part of their problems (Sawyer et al., 1996). Occasionally, teachers are very strict about homework, use inconsistent language and vocabulary, rapidly explain task assignments, do not answer questions, allocate insufficient time for completion of homework, and assign too much homework, eventually leading into difficulties for LD students. Overall, teacher's behaviors and homework assignments are important issues from the viewpoints of students with learning disability (Klingner & Vaughn, 1999). Students' negative relationship with their teachers or any problems in the child-teacher relationship can result in the failure to do the assigned homework. On the other hand, a positive student-teacher relationship not only leads to academic achievement (R. C. Pianta & Stuhlman, 2004), but also affects the other indicators of school success such as students' socio-emotional performance (Decker et al., 2007). However, having a negative relationship with the teacher can diminish students' positive experiences at school (R. C. Pianta & Stuhlman, 2004). These negative relations can manifest through homework problems, low scores on academic achievement tests, behavioral problems, or psychological referrals (Decker et al., 2007). Another sign of the negative student-teacher relationship is creating conflicts or showing maladjustment (Birch & Ladd, 1997). It is clear that all children and teachers are not able to establish a calm and close relationship. Children who cannot rely on their teachers may experience high levels of adjustment problems (E. E. O'Connor et al., 2011). Moreover, repeated attempts to control children's behaviors can lead to negative child-teacher relationships followed by exclusion of students from the classroom (Robert C Pianta et al., 1995). Furthermore, teachers who spend hard times with difficult students become anxious and tired, resulting in a vicious cycle of increasing maladjusted LD children.

#### ***Homework problems of students with learning disability***

One of the causes of LD students' maladjustment and behavioral problems at school is having difficulty completing their assignments. "Homework assignments" are the tasks that teachers use to enhance or practice students' learning (Hoover-Dempsey et al., 2001). Homework gives students the opportunity to practice more about the concepts presented in the class (Earle, 1992). Like other aspects of education, doing homework is a part of students' performances to achieve grades. Receiving good grades leads to educational achievement, which is considered a strong motivation for students (Geary, 2010). If this does not occur, they will be blamed by their friends and even by their teachers, which may influence their behaviors and adjustment at school (Charles, 2013). Students with learning disability are more likely to have homework problems compared to their peers.

Doing homework persistently is a difficult job for children, especially those with disabilities (Tanis Bryan et al., 2001). Vitale Sr (2006) reported that 57% of children with learning disability had difficulty completing their homework. As LD students receive lower grades in their educational courses, they are less motivated to perform homework to enhance their executive performance (Bender & Wall, 1994). LD children have difficulty with some educational areas such as reading, mathematics, and written or oral language. This makes them more vulnerable to group work as well as extra homework, eventually resulting in fewer academic achievements (Tanis Bryan et al., 2001). Students with learning disability have admitted that they do homework with difficulty, do not do their homework well, and need another person to help them complete their assignments (Tanis Bryan & Nelson, 1994; T Bryan et al., 1995).

### ***Behavior problems and adjustment in students with learning disability***

Studies have shown that LD children exhibit various symptoms of behavior problems including thinking problem, low concentration, inattention, inactivity, weak interaction, lack of confidence, loss of self-esteem, sadness, restlessness (unsolved), aggression, delinquency, panic, and sleeping problem (Cavioni et al., 2017; Hassan, 2015; McNamara et al., 2008; Zakopoulou et al., 2018). In this respect, attention problems and sometimes aggressive behaviors are the most important ones amongst young LD children (Hassan, 2015; Kotkin et al., 2001). Although not all students with learning disability have behavioral problems, the incidence of such problems is higher in students with learning disability than in normal students. In fact, learning disability is associated with widespread executive and behavioral problems such as delinquent and antisocial behaviors (Zakopoulou et al., 2018). The main distinguishing characteristics of LD students include negative attitude towards themselves and others, inappropriate self-disclosure, passive learning process, problem-solving disorder, hopelessness in learning, deficiency in cognitive coping strategies, and lack of responsiveness in social interactions (Dehghani et al., 2008).

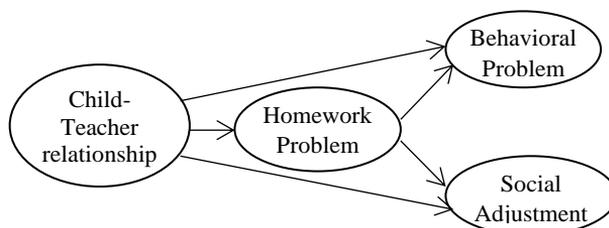
Rather than being a separate class of learning disability, social adjustment seems to be correlated to such disabilities (Wong, 1991). Social adjustment has been defined as responding to the demands and pressures of the social environment imposed on individuals, which is one of the most important elements in assessing students' improvement. These demands can be internal or external. In this context, there are two main points of view. First, adjustment is an achievement that emphasizes internal quality and efficiency. Second, adjustment is a process, through which one encounters the external environment (Sharma, 2016). Learning disability is a strong negative predictor of social adjustment (Khanum et al., 2018). People with learning disability have poor social skills and social adjustment (Bhan & Farooqui, 2013). Compared to normal children, LD students are at a greater risk of social rejection and lack of self-esteem. Some

## Child-Teacher Relationship Quality, Homework Problems, Behavior Problems, and Social Adjustment in Students with Learning Disability: A Path Analysis

researchers have also claimed that learning disability can increase the risk of social victimization (Thompson et al., 1994; Whitney et al., 1992).

### *Theoretical framework*

The child-teacher relationship seems to be directly correlated to children's motivation to do homework. Relations are in fact a key source for children. Researchers agree that social and academic skills at school depend on the quality of child-teacher relationships (Rucinski et al., 2018; Wanders et al., 2020). On the other hand, doing the homework well determines children's adjustment to the school environment and appropriate behaviors. Doing homework is also one of the important aspects of school participation (Kelly, 2008). Increased school participation leads to great achievements (Appleton et al., 2008), academic abilities (Li et al., 2010), positive feelings, and a decrease in dropout rates (Reschly et al., 2008). When children receive higher grades due to the better performance of their homework and regular exercises, they will show more interest in the school environment and more adjustment to other students and school staff, thus conducting less problematic behaviors. In contrast, students who are reluctant to do their homework spend more time elsewhere (e.g. for pleasure) and find school less exciting and further restrictive (Shernoff & Schmidt, 2008). Therefore, they will become less receptive to the school environment and experience more behavioral problems. The child-teacher relationship also helps children adjust to the school environment and the quality of this relationship affects their behavioral and academic skills. A close relationship between the teacher and children modifies students' behaviors and improves their adjustment (Buyse et al., 2009; Rentzou & Sakellariou, 2011). Evidence has indicated that the positive relationship between the teacher and the child is associated with the child's good feeling about school (Furrer & Skinner, 2003). Many children who establish good relationships with their teachers will be able to expand their experiences at school and use their teachers as a reliable source of classroom discovery (Birch & Ladd, 1997). Consequently, students who are more receptive carry out their assignments well and gain higher grades in their academic achievement tests. A prior investigation demonstrated that the quality of the student-teacher relationship, defined as perceived emotional security with the teacher, was related to children's motivation and participation in school (Connell & Wellborn, 1991). Regarding the aforementioned correlations, the relationship between child-teacher relationship, homework problems, behavioral problems, and social adjustment among students with learning disability can be considered as depicted in **Figure 1**.



**Fig 1.** Proposed model

As mentioned earlier, psychological factors such as the child-teacher relationship have a major impact on the main problems of students including behavior and social adjustment. However, few studies have investigated the relationship between these variables amongst children with learning disability. Given the importance of these variables in students with specific disorders, the present study aims to investigate the mediating role of homework assignments in the relationship between the quality of child-teacher relationship and behavioral problems and adjustment at school among students with learning disorder. The hypotheses have been set as follows:

- 1- Child-teacher relationship quality has a direct effect on homework problems, behavioral problems, and social adjustment at school.
- 2- Child-teacher relationship quality has an indirect effect on behavioral problems and social adjustment at school via affecting the homework problem.

## Methods

In this descriptive, cross-sectional, correlational study, among 578 elementary school students with learning disability in Yazd province, Iran who were referred to the Learning Disability Education Center affiliated to Education Organization (Ministry of Education), 231 students were selected by simple random sampling. The children were referred to these centers after implementation of interviews and standard tests for diagnosing learning disability by education experts and were diagnosed as LD students who needed to receive further training alongside school education. The sample size was determined based on Krejcie and Morgan's sampling table (Krejcie & Morgan, 1970). Considering that the best sample size should be 20 times the number of parameters in path analysis and there were 11 free parameters in the proposed model, the sample size of 220 participants was sufficient for the analysis. Nevertheless, considering the possibility of sample dropout, 237 people participated in the study. The inclusion criteria were aging 7-12 years (elementary school), living with parents, and attending LD training centers on a regular basis. The exclusion criteria were having a history of chronic physical or psychological disorders and suffering from a developmental disorder in addition to the learning disability. At first, informed consent forms were completed by the parents. Then, teachers were requested to fill out the study questionnaires, which took between 15 and 25 minutes. The questionnaires were completed individually.

## Data analysis

the data were entered into the SPSS 21 and AMOS 22 software and were analyzed using Pearson's correlation, hierarchical regression, and Path analysis analysis. The normality

of the distribution was investigated by examining the skewness and kurtosis of the distribution. Variance inflation factor (VIF) and tolerance test were conducted in order to evaluate the collinearity of independent variables with each other. Durbin-Watson's test was also used to assess the independence of error variables from each other. The linearity of the relationship between the variables was also examined using a dot plot. Indirect coefficients were evaluated using the Bootstrapping method. Considering that one of the parent-child relationship components was removed from the model after the modification indices, hierarchical regression was also used as a side finding to determine the role of this variable in predicting the dependent variable. Multivariate outliers were identified and removed using the Mahalanobis index.

### Measures

**Student-Teacher Relationship Scale (STRS):** This scale was developed by R. C. Pianta (2001) to measure teachers' perceptions of student-teacher relationship. It included 28 items divided into three subscales, namely conflict, closeness, and dependency. The respondents indicated their level of agreement with each item on a five-point Likert-type scale ranging from 1 (definitely does not apply) to 5 (definitely applies). The three-factor structure of the Persian version of STRS was confirmed by confirmatory factor analysis. In addition, Cronbach's alpha coefficients of 0.80, 0.82, and 0.77 were reported for closeness, conflict, and dependency, respectively (Nasiri, 2015). The content validity of the Persian version of STRS was confirmed (Nasiri, 2015). The Persian version of STRS also showed convergent validity with learning achievement (Nasiri, 2015) and school competency (SepahMansour et al., 2016). In the present study, Cronbach's alpha coefficients of .81, .80, and .73 were obtained for closeness, conflict, and dependency, respectively. In this study, STRS was used to assess the LD students' behavioral problems and social adjustment.

**Teacher-Child Rating Scale (T-CRS):** The T-CRS contained 38 items divided into seven subscales and was used to measure the students' social adjustment and behavioral problems at school (Hightower et al., 1986). The subscales included conduct problems, learning problems, shyness/anxiety problems, frustration tolerance, work habits, assertive social skills, and peer sociability, which were divided into two factors of social adjustment and behavioral problems. Behavioral problems included 18 items scored on a five-point Likert scale ranging from 1 = not a problem to 5 = a very serious problem. Social adjustment consisted of 20 items that measured social competencies using a five-point Likert scale ranging from 1 = not at all to 5 = very well. The Cronbach's alpha coefficient of this scale was 0.85-0.95 (median = 0.91) and its test-retest coefficients for 10- and 20-week intervals ranged from 0.61 to 0.91 (median = 0.83). Besides, T-CRS showed

convergent validity with achievement, anxiety, and self-control (Hightower et al., 1986). The content validity as well as the two-factor structure of the Persian version of the T-CRS was confirmed using confirmatory factor analysis (Nasiri, 2015). Also, the Persian version of the T-CRS had significant convergent validity with students' academic performance (Nasiri, 2015). In the present study, Cronbach's alpha coefficients of 0.88 and 0.90 were obtained for behavioral problems and social adjustment, respectively.

**Homework Problems Checklist (HPC):** This scale was designed by Anesko et al. (1987a) and contained 20 items scored on a five-point Likert scale ranging from 0 = never to 3 = very often. Anesko et al. (1987b) reported that the internal consistency of HPC ranged from 0.90 to 0.92. Additionally, HPC showed divergent validity with children's academic functioning ( $r=-0.43$ ,  $p<0.001$ ). The factor structure of the Persian version of HPC was confirmed by confirmatory factor analysis and its Cronbach's alphas was 0.92 (Nasiri, 2015). The validity of the Persian version of HPC was confirmed using 5 experts' viewpoints. The scores of the Persian version of HPC had a significant difference with the academic performance of the students (Nasiri, 2015). In the present study, the Cronbach's alpha of the total score was 0.91.

## Results

The mean age of the children, mothers, and fathers was  $8.23\pm 1.29$ ,  $33.09\pm 3.36$ , and  $37.64\pm 4.13$  years, respectively. In terms of the number of children, 12.1% of the families had single children, 51.3% had two children, and 36.6% had more than two children. Besides, 5.1% of the families had two children with learning disabilities. In terms of education level, 6.9% of the mothers were illiterate, 83.6% had school education, and 9.5% had academic education. Additionally, 3.5%, 70.9%, and 25.6% of the fathers were illiterate, had school education, and had academic education, respectively.

The means, standard deviations, and bivariate correlations of the variables have been presented in Table 1. Accordingly, the mean scores of the inattention/avoidance and productivity/non-adherence subscales of the behavioral problems checklist were  $10.49\pm 2.41$  and  $13.15\pm 3.49$ , respectively. The child-teacher conflict was positively correlated to the students' homework and behavioral problems and negatively correlated to their social adjustment. Conversely, child-teacher closeness was negatively correlated to the children's homework and behavioral problems and positively correlated to their social adjustment ( $p<0.01$ ). No significant correlation was found between child-teacher dependency and children's homework problems and social adjustment. However, there was a significant positive correlation between child-teacher dependency and children's behavioral problems (Table 1).

Table 1. Mean, standard deviation, and correlation between study variables

variables	2	3	4	5	6	Mean	SD
-----------	---	---	---	---	---	------	----

Child-Teacher Relationship Quality, Homework Problems, Behavior Problems, and Social Adjustment in Students with Learning Disability: A Path Analysis

<b>1. Conflict</b>	-.37*	.32*	.45*	-.43*	.59*	13.84	9.27
<b>2. Closeness</b>	1	.22*	-.44*	.56*	-.48*	30.12	7.51
<b>3. Dependency</b>		1	.01	-.02	.18*	8.20	4.37
<b>4. Homework problems</b>			1	-.63*	.67*	23.64	5.55
<b>5. Social adjustment</b>				1	-.77*	49.88	17.61
<b>6. Problem behaviors</b>					1	37.51	13.23

\*p<.01

The results of multiple hierarchical regression have been presented in Table 2. Accordingly, the teacher-child relationship and homework problems were the significant predictors of children's behavioral problems and social adjustment. In this regard, teacher-child relationship and homework problems predicated 59% of the variance of behavioral problems and 52% of the variance of social adjustment in LD students. Beta coefficients showed that all the subscales played a significant role in predicting behavioral problems. Yet, conflict among the teacher-child relationship subscales and inattention/avoidance among the homework problems subscales had more prominent roles. However, only closeness among the teacher-child relationship subscales and only inattention/avoidance among the homework problems subscales played a pivotal role in predicting social adjustment (p<0.01).

Table 2. Hierarchical multiple regression analysis

Step		Behavior problems				Social adjustment			
		B	T	sig	R <sup>2</sup>	B	t	sig	R <sup>2</sup>
1	Conflict	.42	7.01	.000		-.23	-3.59	.000	
	Closeness	-.35	-6.11	.000	.44*	.49	7.934	.000	.371*
	Dependency	.12	2.19	.030		-.06	-.95	.343	
2	Conflict	.25	4.611	.000		-.06	-.96	.340	
	Closeness	-.22	-4.19	.000		.37	6.47	.000	
	Dependency	.14	2.85	.005	.59*	-.07	-1.33	.186	.52*
	Ina/Avoi <sup>1</sup>	.27	4.04	.000		-.35	-4.79	.000	
	Pro/Nona <sup>2</sup>	.22	3.21	.002		-.13	-1.73	.085	

\*p<.01 1. Inattention/Avoidance 2. Productivity/Nonadherence

Path analysis was used to investigate the mediating role of homework problems in the relationship between the child-teacher relationship and behavioral problems and social adjustment. The results indicated that the proposed model of the study did not have a desirable fitness. Thus, the model modification indices were used to improve it. Since all the paths exiting from the dependency subscale were insignificant, it was eliminated in the modified model. The path of child-teacher conflict to social adjustment was also omitted. However, the path of behavior problems to social adjustment was added and the covariance was established between child-teacher closeness and conflict. Having applied

these changes, the modified model achieved the desired fitness, except for one index. As seen in the modified model, closeness and conflict in the child-teacher relationship affected behavioral problems and social adjustment via influence on homework problems (Figure 2).

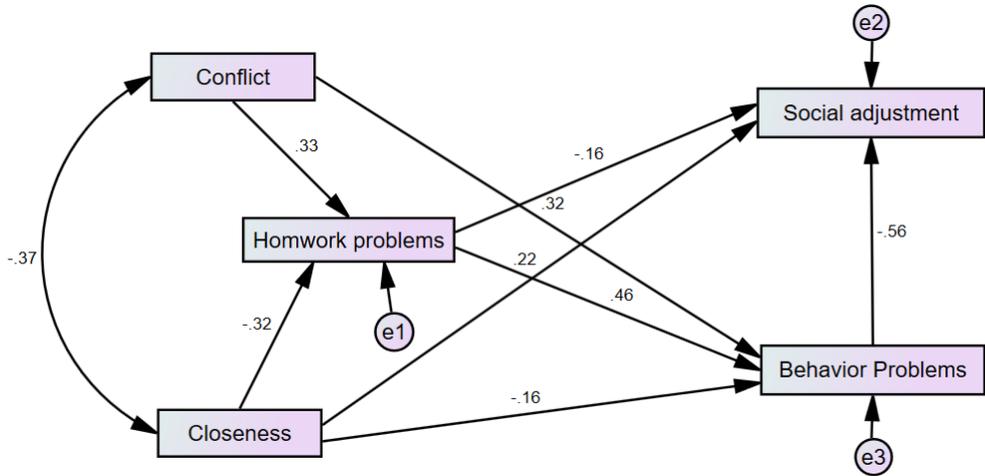


Fig 2. Modified model

The model modification indices have been shown in Table 3. Although the value of chi-square was insignificant,  $\chi^2/df=3.468$  was obtained below the standard value of 5. All indices including Goodness of Fit Index (GFI), Normal Fit Index (NFI), Relative Fit Index (RFI), Incremental Fit Index (IFI), and Comparative Fit Index (CFI) were above 90, which was appropriate for the model fitness. Even though the Root Mean Square Error of Approximation (RMSEA), which must be less than 0.08, was 0.094 in the model, it could be regarded as a model constraint. However, RMSEA within the range of 0.08 to 0.10, especially when the degree of freedom is small, has been considered an indication of fair model fitness (Kenny et al., 2015). Because the degree of freedom was 1 in the modified model and the sample size was small, 0.1 was accepted for RMSEA, assuming a relatively good fitness for the model.

Table 3. Model fitness indices

$\chi^2$	DF	Sig	$\chi^2/DF$	GFI	AGFI	NFI	RFI	IFI	TLI	CFI	RMSEA
3.468	1	.063	3.468	.994	.911	.994	.938	.996	.955	.996	.104

In order to calculate the indirect coefficients, the Bootstrap method was used. The indirect path coefficient of conflict to behavioral problems was  $r=.152$  ( $p=.003$ ) and that of

conflict to social adjustment was  $r = -.320$  ( $p = .006$ ). The indirect coefficient of closeness to behavioral problems was  $r = -.147$  ( $p = .004$ ) and that of closeness to social adjustment was  $r = .222$  ( $p = .006$ ).

## Discussion

This study aimed to investigate the relationship between the child-teacher relationship and homework problems, behavioral problems, and social adjustment among the students with learning disability by taking the mediating role of homework problems into account. The findings demonstrated that child-teacher closeness had a direct effect on the LD children's behavioral problems and social adjustment as well as an indirect effect on their homework problems. Child-teacher conflict in the LD students directly and indirectly led to an increase in behavioral problems and maladjustment at school by increase in homework problems. In other words, the LD children who had conflicts with their teachers and did not have intimate or appropriate relationships with them usually faced homework problems and had weak performances on their assignments.

Although evidence has indicated that some LD students' problems originate from their relationships with their teachers, no study has explored the relationship between behavioral and social problems and teacher-student relationship amongst LD students. However, since homework assignments for teachers and parents act as an indicator of learning and success (Charles, 2013), this finding was in line with those of other studies indicating a correlation between child-teacher relationship and academic achievement and learning (Gablinske, 2014; Hughes, 2011; Rucinski et al., 2018; Schmitt et al., 2018; Xu & Qi, 2019). The teacher-student relationship is important because it forms the basis of many consequences. A healthy teacher-child relationship helps to develop properly in adolescence (Chandra, 2022). Evidence shows that the teacher-child relationship affects many aspects of children's development, such as emotional and social development, as well as academic achievement and healthy attitudes. For example, the findings show that children's desire and interest in the classroom is strongly related to the relationship between the teacher and the child. Also, the teacher-child relationship affects the academic success of children and supports the social, emotional and cognitive development of children (Lippard et al., 2018). A successful and smooth transition from kindergarten to first grade is strongly related to the teacher-child relationship (White, 2015).

The present study findings showed that the children with learning disorders who had conflicts with their teachers conducted more behavioral problems. Evidence has proved

that behavioral problems in children with learning disability depend on the emotional quality of the student-teacher relationship (Zee et al., 2020b). The major conflict between the teacher and the child can be associated with higher levels of aggression and depressive symptoms in children (Rucinski et al., 2018). The high-quality relationship between the teacher and the child is a predictor of low levels of externalization behaviors. This acts as a buffer against high levels of internalization behaviors in the children, preventing externalization behavior disorders in the long run (E. E. O'Connor et al., 2011). Various studies have indicated that child-teacher conflict might result in children's externalization and internalization behaviors (Arbeau et al., 2010; Jerome et al., 2009). Students with LD, despite having a lot of time with their teacher, experience a lack of recognition or emotional support from their teacher. Findings indicated that teachers tend to treat LD students differently than their typically developing peers, but may simply be unaware of their own biased attitudes toward these children (Hornstra et al, 2010). Evidence shows that children with learning disabilities tend to be less emotionally accepting of their teachers than typically developing children (Al-Yagon & Mikulincer, 2004; Murray & Greenberg, 2000).

In fact, as compare to children with typically development, children with LD are more likely to resort to aggressive strategies to solve interpersonal problems than children without disabilities. Children with LD find aggressive strategies the most effective way to solve problems with their friends and classmates. Also, they seek to solve problems with their parents and teachers by aggressive behaviors and resorting to aggressive strategies (Zee, M., de Bree, E., Hakvoort, B., & Koomen, H. M. 2020).

According to attachment theorists and empirical researchers, children with disabilities are likely to have weaker relationships because these children are at high risk for experiencing academic and social-emotional problems in the classroom (Murray & Pianta, 2007; Pasta et al., 2013).

Teachers' responsibility for teaching children with LD and lack of confidence in own ability to effectively support them may increase their vulnerability to stress and burnout (Billingsley, Carlson, & Klein, 2004; Boyer & Gillespie, 2000). According to social referencing theory (Walden & Ogan, 1988) such teacher feelings, beliefs, and actions may also spread to classmates, negatively coloring their view of the relationship between teachers and children with LD. Evidence suggests that a teacher's negative comments about a student are likely to add to classmates' negative perceptions of the student-teacher relationship, possibly

leading to their subsequent dislike of that particular student (Hendrickx et al, 2017).

Based on the current study findings, child-teacher intimacy had a significant negative correlation with the children's behavioral problems and a significant positive correlation with their social adjustment. Evidence has indicated that most children with behavioral and adjustment problems do not consider their teachers sympathetic or caring and cannot establish a close relationship with them. Children's positive relationships with their teachers including high intimacy and low conflict or dependency lead to low externalization, internalization, and social behaviors (Mejia & Hoglund, 2016).

Researchers have argued that the close relationship between the child and the school teacher has a central function for young children with behavioral problems and creates an image for the social cooperation of these children (Brock & Curby, 2014). Children who have poor relationships with their teachers have high situations of behavior problems and low situations of ability. Despite promoting inclusion and emphasizing the social benefits of inclusion in regular classes, it is noteworthy that social inclusion in school practice for a group of students with LD has not been realized optimally. Evidence shows that learning goals attract the most attention (Pulec Lah 2005), while planning and implementing social-emotional goals (developing social skills, increasing interaction and friendships in class, self-concept, social support) are rarely included. Another problem is the lack of early identification and diagnosis of learning problems. In many cases, before the official diagnosis, when the student often lacks appropriate educational and social support, his social problems increase. Students with LD have poorer social skills and are more likely to be socially excluded in later years (Schmidt, M., Prah, A., & Čagran, B. (2014).

Having a diagnosis of LD may lead to underachievement, which may lead to feelings of failure and experience helplessness and loneliness (Korkmazlar, 1999). Teachers' behaviors and expectations of students' performance and academic competence may be influenced their progress (Vlachou et al., 2013). Sometimes, children with behavioral or developmental disorders may have problems in understanding the emotions and (negative) behaviors of teachers. As a result of these weaker social-cognitive skills, they may overestimate their own competence (Hoza et al, 2004).

On the other hand, teachers' intimate relationships with LD children make them feel that they are being understood, commit less aggressive or antisocial behaviors, and participate in social activities. Previous studies indicated that child-teacher relationships characterized by closeness, openness, and intimacy had a positive effect on children's social, emotional, and educational behaviors (Brock & Curby, 2014; Roorda et al., 2011). Moreover, the students who had less conflicted relationships with their teachers scored higher in behavioral adjustment (Hamre & Pianta, 2006). Robert C Pianta et al. (2012) also found an increase in student participation and adjustment when the teacher provided. The present study findings showed that the children with learning disorders who had conflicts with their teachers conducted more behavioral problems. Evidence has proved that behavioral problems in children with learning disability depend on the emotional quality of the student-teacher relationship (Zee et al., 2020b). The major conflict between the teacher and the child can be associated with higher levels of aggression and depressive symptoms in children (Rucinski et al., 2018). The high-quality relationship between the teacher and the child is a predictor of low levels of externalization behaviors. This acts as a buffer against high levels of internalization behaviors in the children, preventing externalization behavior disorders in the long run (E. E. O'Connor et al., 2011). Various studies have indicated that child-teacher conflict might result in children's externalization and internalization behaviors (Arbeau et al., 2010; Jerome et al., 2009). de Jong et al. (2018) investigated the correlation between the child-teacher relationship quality and behavioral adjustment among sixth-grade students. They also assessed the students' behavioral adjustment and the quality of their relationship both at the beginning and at the end of the school year. Based on the findings, there was a relationship between the children's behaviors at the beginning and at the end of the school year and conflicts or intimacy with the teacher. Accordingly, the negative child-teacher relationship led the children to think that they were not treated in a fair and compassionate manner, which eventually resulted in aggressive and hostile behaviors (Doumen et al., 2011). Based on the current study findings, child-teacher intimacy had a significant negative correlation with the children's behavioral problems and a significant positive correlation with their social adjustment. Evidence has indicated that most children with behavioral and adjustment problems do not consider their teachers sympathetic or caring and cannot establish a close relationship with them. Children's positive relationships with their teachers including high intimacy and low conflict or dependency lead to low externalization, internalization, and social behaviors (Mejia & Hoglund, 2016). On the other hand, teachers' intimate relationships with LD children make them feel that they are being understood, commit less aggressive or antisocial behaviors, and participate in social activities. Furthermore, evidence has demonstrated that the quality of child-teacher relationship influences the development of social skills (Broekhuizen et al., 2016; Bulotsky-Shearer et al., 2020; Schmitt et al., 2018) and social adjustment in children (Bulotsky-Shearer et al., 2020).

Some researchers have suggested that unlike conflict—which is likely a reaction or reflection of children's behavior problems (ie, is more influenced by

the child), closeness is more dyadic and influenced by teachers' abilities such as sensitivity, and responsiveness (Silver et al., 2005). Students who experienced improvements in the quality of their relationships (e.g., decreased conflict or increased closeness) showed decreased behavior problems. Overall, the evidence suggests that improvements in relationship quality may coincide with reductions in conduct problems.

Teachers, counselors and coaches play an essential role in ensuring various forms of success. Therefore, it is necessary to include actions in the classroom and in the context of the implementation of additional professional supports not only to control learning deficits, but also to support and implement the social skills program (Magajna et al. 2008; Milsom and Glanville 2010).

By properly managing the classroom, teaching appropriate behavior patterns, considering and allowing mutual interaction, introducing cooperative forms of learning, and by directly and effectively teaching social skills, teachers can provide appropriate opportunities for social learning and creating a sense of belonging in students with LD (Dobin et al. 2010). Spontaneity, providing support and reciprocity can improve social interaction and school performance in students with LD (Mitchell, 2008).

Previous studies indicated that child-teacher relationships characterized by closeness, openness, and intimacy had a positive effect on children's social, emotional, and educational behaviors (Brock & Curby, 2014; Roorda et al., 2011). Moreover, the students who had less conflicted relationships with their teachers scored higher in behavioral adjustment (Hamre & Pianta, 2006). Robert C Pianta et al. (2012) also found an increase in student participation and adjustment when the teacher provided

## Conclusion

Based on the results, the child-teacher relationship was correlated to homework problems, behavioral problem, and social adjustment at school. The higher quality of children's relationship with their teachers, the higher their motivation will be for completing homework, resulting in higher social adjustment and lower behavioral problems. Hence, breaking the cycle of inappropriate child-teacher relationship and decreased motivation for doing homework makes a rise in social adjustment alongside a cut in behavioral problems at school among children with learning disability. The intimate child-teacher relationship can help students improve their homework performance and educational competence, enhancing their social skills and appropriate behaviors. Having a good

relationship with teachers will also increase the students' sense of belonging and safety at school. In this context, teachers should be aware that children with learning disability may be exposed to more problems compared to their peers. Therefore, they need more support and attention. Moreover, the child-teacher interaction should not be sacrificed while striving for children's school advancement.

### Limitations and Future Reaserchs

Due to limited access to LD students, the sample size of the study was low for Path analysis, which might affect the generalizability of the findings. Another study limitation was the inability to control the extraneous variables such as socioeconomic status, parents' age, and interpersonal differences including behavioral and social problems among children. Thus, future investigations are suggested to reevaluate the relationships between the studied variables after controlling these variables. Furthermore, due to administrative limitations, comparisons with normal children were not performed. Therefore, future studies are recommended to compare normal and LD students regarding the relationship between the studied variables. Finally, the RMSEA of the presented model did not have a favorable cut-off due to the low degree of freedom and sample size. Although the RMSEA value was not too high to reject the model and the model had a relatively good fitness, the proposed model has to be re-tested by conducting future studies with larger sample sizes.

### Disclosure Statements

The authors have no conflict of interests.

### ORCID

<https://orcid.org/0000-0002-7308-6912>

### References

- Al-Yagon, M., & Mikulincer, M. (2004). Socioemotional and Academic Adjustment Among Children with Learning Disorders: The Mediation Role of Attachment-Based Factors. *Journal of Special Education, 38*, 111-123.
- Anesko, K. M., Schoiock, G., Ramirez, R., & Levine, F. M. (1987a). The homework problem checklist: Assessing children's homework difficulties. *Behavioral Assessment, 9*(2), 179-185.
- Anesko, K. M., Schoiock, G., Ramirez, R., & Levine, F. M. (1987b). The homework problem checklist: Assessing children's homework difficulties. *Behavioral Assessment*.

Child-Teacher Relationship Quality, Homework Problems, Behavior Problems, and Social Adjustment in Students with Learning Disability: A Path Analysis

- Appleton, J. J., Christenson, S. L., & Furlong, M. J. (2008). Student engagement with school: Critical conceptual and methodological issues of the construct. *Psychology in the Schools, 45*(5), 369-386.
- Arbeau, K. A., Coplan, R. J., & Weeks, M. (2010). Shyness, teacher-child relationships, and socio-emotional adjustment in grade 1. *International Journal of Behavioral Development, 34*(3), 259-269.
- Association, A. P. (2013). *Diagnostic and statistical manual of mental disorders*. American Psychiatric Publishing.
- Bender, W. N., & Wall, M. E. (1994). Social-emotional development of students with learning disabilities. *Learning Disability Quarterly, 17*(4), 323-341.
- Bhan, S., & Farooqui, Z. (2013). Social Skills Training of Children with Learning Disability. *Disability, CBR & Inclusive Development, 24*(2), 54-63.
- Birch, S. H., & Ladd, G. W. (1997). The teacher-child relationship and children's early school adjustment. *Journal of School Psychology, 35*(1), 61-79.
- Blacher, J., Baker, B. L., & Eisenhower, A. S. (2009). Student-teacher relationship stability across early school years for children with intellectual disability or typical development. *American journal on intellectual and developmental disabilities, 114*(5), 322-339.
- Brock, L. L., & Curby, T. W. (2014). Emotional support consistency and teacher-child relationships forecast social competence and problem behaviors in prekindergarten and kindergarten. *Early Education and Development, 25*(5), 661-680.
- Broekhuizen, M. L., Mokrova, I. L., Burchinal, M. R., & Garrett-Peters, P. T. (2016). Classroom quality at pre-kindergarten and kindergarten and children's social skills and behavior problems. *Early Childhood Research Quarterly, 36*, 212-222.
- Bryan, T., Burstein, K., & Bryan, J. (2001). Students With Learning Disabilities: Homework Problems and Promising Practices. *Educational Psychologist, 36*, 167-180.
- Bryan, T., & Burstein, K. S. (1998). Teacher-selected strategies for improving homework completion. *Remedial and Special Education, 19*(5), 263-275.
- Bryan, T., & Nelson, C. (1994). Doing Homework: Perspectives of Elementary and Junior High School Students. *Journal of Learning Disabilities, 27*(8), 488-499.
- Bryan, T., Nelson, C., & Mathur, S. (1995). Doing homework: Perspectives of primary students in mainstream, resource, and self-contained special education classrooms. *Learning Disabilities Research & Practice, 10*, 85-90.
- Bulotsky-Shearer, R. J., Fernandez, V. A., Bichay-Awadalla, K., Bailey, J., Futterer, J., & Qi, C. H. (2020). Teacher-child interaction quality moderates social risks associated

- with problem behavior in preschool classroom contexts. *Journal of Applied Developmental Psychology*, 67, 101103.
- Buyse, E., Verschueren, K., Verachtert, P., & Damme, J. V. (2009). Predicting school adjustment in early elementary school: Impact of teacher-child relationship quality and relational classroom climate. *The Elementary School Journal*, 110(2), 119-141.
- Cadima, J., Doumen, S., Verschueren, K., & Buyse, E. (2015). Child engagement in the transition to school: Contributions of self-regulation, teacher-child relationships and classroom climate. *Early Childhood Research Quarterly*, 32, 1-12.
- Cameron, C. E., Connor, C. M., & Morrison, F. J. (2005). Effects of variation in teacher organization on classroom functioning. *Journal of School Psychology*, 43(1), 61-85.
- Cavioni, V., Grazzani, I., & Ornaghi, V. (2017). Social and emotional learning for children with Learning Disability: Implications for inclusion.
- Charles, A. M. (2013). *Homework Problems and Remedies*. Academic Instruction for Students with Disabilities, Lynchburg College.
- Connell, J. P., & Wellborn, J. G. (1991). Competence, autonomy, and relatedness: A motivational analysis of self-system processes. In M. R. Gunnar & L. A. Sroufe (Eds.), *The Minnesota symposia on child psychology, Vol. 23. Self processes and development* (Vol. 23, pp. 43-77). Lawrence Erlbaum Associates.
- Cortiella, C., & Horowitz, S. H. (2014). *The State of Learning Disabilities Facts, Trends and Emerging Issues (Third Edition)*. National Center for Learning Disabilities.
- de Jong, E. M., Koomen, H. M., Jellesma, F. C., & Roorda, D. L. (2018). Teacher and child perceptions of relationship quality and ethnic minority children's behavioral adjustment in upper elementary school: A cross-lagged approach. *Journal of school psychology*, 70, 27-43.
- Decker, D. M., Dona, D. P., & Christenson, S. L. (2007). Behaviorally at-risk African American students: The importance of student-teacher relationships for student outcomes. *Journal of School Psychology*, 45(1), 83-109.
- Dehghani, M., Amiri, S., & Molavi, H. (2008). Impact of attributional and metacognitive-attributional strategies training on reading comprehension in fourth grade female elementary students with dyslexia [Applicable]. *Journal of Exceptional Children*, 7(4), 407-424.
- Doumen, S., Buyse, E., Colpin, H., & Verschueren, K. (2011). Teacher-child conflict and aggressive behaviour in first grade: The intervening role of children's self-esteem. *Infant and Child Development*, 20, 449-465.
- Earle, R. S. (1992). Homework as an instructional event. *Educational technology*, 32(4), 36-41.
- Fredricks, J. A., Blumenfeld, P. C., & Paris, A. H. (2004). School Engagement: Potential of the Concept, State of the Evidence. *Review of Educational Research*, 74(1), 59-109.

Child-Teacher Relationship Quality, Homework Problems, Behavior Problems, and Social Adjustment in Students with Learning Disability: A Path Analysis

- Furrer, C., & Skinner, E. (2003). Sense of relatedness as a factor in children's academic engagement and performance. *Journal of educational psychology, 95*(1), 148-162.
- Gablinske, P. B. (2014). *A case study of student and teacher relationships and the effect on student learning*, [Open Access Dissertations].
- Geary, M. B. (2010). *Development and preliminary validation of the adolescent homework inventory*, [Open Access Dissertation].
- Hamre, B. K., & Pianta, R. C. (2006). Student-Teacher Relationships (*Children's needs III: Development, prevention, and intervention*. (pp. 59-71). National Association of School Psychologists.
- Hassan, A. E. (2015). Emotional and Behavioral Problems of Children with Learning Disabilities. *Journal of Educational Policy and Entrepreneurial Research, 2*, 66-74.
- Hightower, A. D., Work, W. C., Cowen, E. L., Lotyczewski, B. S., Spinell, A. P., Guare, J. C., & Rohrbeck, C. A. (1986). The Teacher-Child Rating Scale: A Brief Objective Measure of Elementary Children's School Problem Behaviors and Competencies. *School Psychology Review, 15*(3), 393-409.
- Hoover-Dempsey, K. V., Battiato, A. C., Walker, J. M., Reed, R. P., DeJong, J. M., & Jones, K. P. (2001). Parental involvement in homework. *Educational psychologist, 36*(3), 195-209.
- Howes, C., Phillipsen, L., & Peisner-Feinberg, E. (2000). The Consistency of Perceived Teacher-Child Relationships Between Preschool and Kindergarten. *Journal of School Psychology, 38*, 113-132.
- Hughes, J. N. (2011). Longitudinal effects of teacher and student perceptions of teacher-student relationship qualities on academic adjustment. *The Elementary school journal, 112*(1), 38-60.
- Jerome, E. M., Hamre, B. K., & Pianta, R. C. (2009). Teacher-child relationships from kindergarten to sixth grade: Early childhood predictors of teacher-perceived conflict and closeness. *Social Development, 18*(4), 915-945.
- Kelly, S. (2008). Race, social class, and student engagement in middle school English classrooms. *Social Science Research, 37*(2), 434-448.
- Kenny, D. A., Kaniskan, B., & McCoach, D. B. (2015). The Performance of RMSEA in Models With Small Degrees of Freedom. *Sociological Methods & Research, 44*(3), 486-507.
- Khanum, F., Noureen, S., & Mushtaq, A. (2018). Self-Concept and Social Adjustment of Children with Learning Disabilities. *International Journal of Scientific & Engineering Research, 9*, 1548-1558.

- Klingner, J. K., & Vaughn, S. (1999). Students' Perceptions of Instruction in Inclusion Classrooms: Implications for Students with Learning Disabilities. *Exceptional Children, 66*(1), 23-37.
- Kotkin, R. A., Forness, S., & Kavale, K. (2001). Comorbid ADHD and learning disabilities: Diagnosis, special education, and intervention. In D. P. Hallagan & B. K. Keogh (Eds.), *Research and global perspectives in learning disabilities. Essays in honor of William M. Cruickshank* (pp. 43-63). Lawrence Erlbaum Associates.
- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and psychological measurement, 30*(3), 607-610.
- Li, Y., Lerner, J. V., & Lerner, R. M. (2010). Personal and ecological assets and academic competence in early adolescence: The mediating role of school engagement. *Journal of youth and adolescence, 39*(7), 801-815.
- McNamara, J., Vervaeke, S.-L., & Willoughby, T. (2008). Learning disabilities and risk-taking behavior in adolescents: A comparison of those with and without comorbid attention-deficit/hyperactivity disorder. *Journal of learning disabilities, 41*(6), 561-574.
- Mejia, T. M., & Hoglund, W. L. (2016). Do children's adjustment problems contribute to teacher–child relationship quality? Support for a child-driven model. *Early Childhood Research Quarterly, 34*, 13-26.
- Murray, C., & Murray, K. M. (2004). Child Level Correlates of Teacher-Student Relationships: An Examination of Demographic Characteristics, Academic Orientations, and Behavioral Orientations. *Psychology in the Schools, 41*(7), 751-762.
- Mysore Narasimha, V. (2016). Attitude of Primary School Teachers towards Children with Learning Disabilities. *Journal of Indian Association for Child and Adolescent Mental Health, 12*, 323-335.
- Nasiri, A. (2015). *The role of student-teacher relationship and homework management strategies on learning achievement of elementary school students*, [Islamic Azad University].
- Nicholls, J. G., McKenzie, M., & Shufro, J. (1994). Schoolwork, homework, life's work: The experience of students with and without learning disabilities. *Journal of Learning Disabilities, 27*(9), 562-569.
- O'Connor, E., & McCartney, K. (2007). Examining Teacher–Child Relationships and Achievement as Part of an Ecological Model of Development. *American Educational Research Journal, 44*(2), 340-369.
- O'Connor, E. E., Dearing, E., & Collins, B. A. (2011). Teacher-Child Relationship and Behavior Problem Trajectories in Elementary School. *American Educational Research Journal, 48*(1), 120-162.

Child-Teacher Relationship Quality, Homework Problems, Behavior Problems, and Social Adjustment in Students with Learning Disability: A Path Analysis

- Papadopoulou, E., & Gregoriadis, A. (2017). Young children's perceptions of the quality of teacher-child interactions and school engagement in Greek kindergartens. *Journal of Early Childhood Research, 15*(3), 323-335.
- Pianta, R. C. (2001). *Student-teacher relationship scale: Professional manual*. Psychological Assessment Resources.
- Pianta, R. C. (2001). *Student-Teacher Relationship Scale: Professional manual*. Psychological Assessment Resources.
- Pianta, R. C., Hamre, B. K., & Allen, J. P. (2012). Teacher-student relationships and engagement: Conceptualizing, measuring, and improving the capacity of classroom interactions (*Handbook of research on student engagement* (pp. 365-386). Springer.
- Pianta, R. C., Steinberg, M. S., & Rollins, K. B. (1995). The first two years of school: Teacher-child relationships and deflections in children's classroom adjustment. *Development and psychopathology, 7*(2), 295-312.
- Pianta, R. C., & Stuhlman, M. W. (2004). Teacher-child relationships and children's success in the first years of school. *School Psychology Review, 33*, 444-458.
- Ponitz, C. C., Rimm-Kaufman, S. E., Grimm, K. J., & Curby, T. W. (2009). Kindergarten classroom quality, behavioral engagement, and reading achievement. *School Psychology Review, 38*(1), 102-120.
- Powell, D. R., Burchinal, M. R., File, N., & Kontos, S. (2008). An eco-behavioral analysis of children's engagement in urban public school preschool classrooms. *Early Childhood Research Quarterly, 23*(1), 108-123.
- Rahemi Noushabadi, F., Adib Sereshki, N., Sajedi, F., & Rostami, M. (2015). Social competence of students with learning disability: Advantages of verbal self-instructional package. *Iranian Rehabilitation Journal, 13*(1), 15-10.
- Raufelder, D., Bukowski, W. M., & Mohr, S. (2013). Thick description of the teacher-student relationship in the educational context of school: results of an ethnographic field study. *Journal of Education and Training Studies, 1*(2), 1-18.
- Rentzou, K., & Sakellariou, M. (2011). The quality of early childhood educators: Children's interaction in Greek child care centers. *Early Childhood Education Journal, 38*(5), 367-376.
- Reschly, A. L., Huebner, E. S., Appleton, J. J., & Antaramian, S. J. P. i. t. S. (2008). Engagement as flourishing: The contribution of positive emotions and coping to adolescents' engagement at school and with learning. *45*(5), 419-431.
- Roorda, D. L., Koomen, H. M., Spilt, J. L., & Oort, F. J. (2011). The influence of affective teacher-student relationships on students' school engagement and achievement: A meta-analytic approach. *Review of educational research, 81*(4), 493-529.

- Rucinski, C. L., Brown, J. L., & Downer, J. T. (2018). Teacher–child relationships, classroom climate, and children’s social-emotional and academic development. *Journal of Educational Psychology, 110*(7), 992.
- Sawyer, V., Nelson, J. S., Jayanthi, M., Bursuck, W. D., & Epstein, M. H. (1996). Views of Students with Learning Disabilities of their Homework in General Education Classes: Student Interviews. *Learning Disability Quarterly, 19*(2), 70-85.
- Schmitt, S. A., Pratt, M. E., Korucu, I., Napoli, A. R., & Schmerold, K. L. (2018). Preschool classroom quality and social-emotional functioning: Findings across geographic regions. *Early Childhood Research Quarterly, 43*, 11-22.
- SepahMansour, M., Barati, Z., & Behzadi, S. (2016). Model for academic resilience based on academic competence and teacher-student relationship. *Journal of Psychological Models and Methods, 7*(25), 25-44.
- Sharma, S. (2016). Adjustment: Process, achievement, characteristics, measurement and dimensions.
- Sherhoff, D. J., & Schmidt, J. A. (2008). Further evidence of an engagement–achievement paradox among US high school students. *Journal of Youth and Adolescence, 37*(5), 564-580.
- Thompson, D., Whitney, I., & Smith, P. K. (1994). Bullying of children with special needs in mainstream schools. *Support for learning, 9*(3), 103-106.
- Verschueren, K., & Koomen, H. M. (2012). Teacher–child relationships from an attachment perspective. *Attachment & human development, 14*(3), 205-211.
- Vitale Sr, R. A. (2006). Homework can be challenging for students with learning disabilities.
- Wanders, F. H., Dijkstra, A. B., Maslowski, R., & Van der Veen, I. J. R. P. i. E. (2020). The effect of teacher-student and student-student relationships on the societal involvement of students. *35*(3), 266-286.
- Whitney, I., Nabuzoka, D., & Smith, P. K. (1992). Bullying in schools: Mainstream and special needs. *Support for learning, 7*(1), 3-7.
- Williford, A. P., Maier, M. F., Downer, J. T., Pianta, R. C., & Howes, C. (2013). Understanding how children's engagement and teachers' interactions combine to predict school readiness. *Journal of Applied Developmental Psychology, 34*(6), 299-309.
- Wong, B. Y. (1991). The relevance of metacognition to learning disabilities (*Learning about learning disabilities* (pp. 231-258). Elsevier.
- World Health, O. (2011). World report on disability 2011. World Health Organization.
- Xu, Z., & Qi, C. (2019). The Relationship between Teacher-student Relationship and Academic Achievement: The Mediating Role of Self-efficacy. *EURASIA Journal of Mathematics, Science and Technology Education, 15*, 10.

Child-Teacher Relationship Quality, Homework Problems, Behavior Problems, and Social Adjustment in Students with Learning Disability: A Path Analysis

- Zakopoulou, V., Sarris, D., Tagkas, P., Tsampalas, E., & Vergou, M. (2018). Learning Disabilities and Disruptive Behavior: Research of Observing Students in Primary School. *Int J Sch Cogn Psychol*, 5(212), 2.
- Zee, M., de Bree, E., Hakvoort, B., & Koomen, H. M. J. o. A. D. P. (2020a). Exploring relationships between teachers and students with diagnosed disabilities: A multi-informant approach. *66*, 101101.
- Zee, M., de Bree, E., Hakvoort, B., & Koomen, H. M. Y. (2020b). Exploring relationships between teachers and students with diagnosed disabilities: A multi-informant approach. *Journal of Applied Developmental Psychology*, 66, 101101.
- Al-Yagon, M., & Mikulincer, M. (2004). Socioemotional and academic adjustment among children with learning disorders: The mediational role of attachment-based factors. *Journal of Special Education*, 38, 111-123.
- Billingsley, B., Carlson, E., & Klein, S. (2004). The working conditions and induction support of early career special educators. *Exceptional Children*, 70, 333-347.
- Boyer, L., & Gillespie, P. (2000). Keeping the committed. *Teaching Exceptional Children*, 33, 10-15.
- Chandra, U., Singh, S. P., & Kumar, P.(2022).Child-teacher relationship and academic success of the students with reference to social and emotional competencies, 30(3),1347-1356.
- Dobbins, N., K. Higgins, T. Pierce, R. D. Tandy, and M. Tincani. 2010. "An Analysis of Social Skills Instruction Provided in Teacher Education and In-service Training Programs for General and Special Educators." *Remedial and Special Education* 31 (5): 358-367.
- Hendrickx, M. M., Mainhard, T., Boor-Klip, H. J., & Brekelmans, M. (2017). Our teacher likes you, so I like you: A social network approach to social referencing. *Journal of School Psychology*, 63, 35-48.
- Hendrickx, M. M., Mainhard, T., Oudman, S., Boor-Klip, H. J., & Brekelmans, M. (2017). Teacher behavior and peer liking and disliking: The teacher as a social referent for peer status. *Journal of Educational Psychology*, 109, 546-558.

- Hornstra, L., Denessen, E., Bakker, J., van den Bergh, L., & Voeten, M. (2010). Teacher attitudes toward dyslexia: Effects on teacher expectations and the academic achievement of students with dyslexia. *Journal of Learning Disabilities, 43*, 515-529.
- Hoza, B., Gerdes, A. C., Hinshaw, S. P., Arnold, L. E., Pelham, W. E., Jr., Molina, B. S., & Wigal, T. (2004). Self-perceptions of competence in children with ADHD and comparison children. *Journal of Consulting and Clinical Psychology, 72*, 382.
- Korkmazlar, U. . (1999). *O`zel o`g`renme bozukluđ`u (o`g`renme gu`c, lu`kleri): Ben hasta deđ`gilim, c,ocuk sa`gliđ`ı hastalıklarının psikososyal y`on`u* [Specific learning difficulties: I am not sick, psychosocial aspect of child disorders]. Nobel Tıp Publications: Istanbul
- Lippard, C. N., La Paro, K. M., Rouse, H. L., & Crosby, D. A. (2018). A closer look at teacherchild relationships and classroom emotional contextinpre-school.
- Magajna, L., M. Kavkler, G. Čačinovič Vogrinčič, S. Pečjak, and K. Bregar Golobič. 2008. Koncept dela: Učne težave v osnovni šoli [Concept of Work: Learning Difficulties in Primary School]. Ljubljana: Zavod republike Slovenije za šolstvo
- Milsom, A., and J. L. Glanville. 2010. "Factors Mediating the Relationship between Social Skills and Academic Grades in a Sample of Students Diagnosed with Learning Disabilities or Emotional Disturbance." *Remedial and Special Education 31* (4): 241–251.
- Mitchell, D. 2008. *What Really Works in Special and Inclusive Education*. Routledge: Taylor & Francis Group.
- Murray, C., & Greenberg, M. T. (2000). Children's relationship with teachers and bonds with school an investigation of patterns and correlates in middle childhood. *Journal of School Psychology, 38*, 423-445.
- Murray, C., & Pianta, R. C. (2007). The importance of teacher-student relationships for adolescents with high incidence disabilities. *Theory Into Practice, 46*, 105-112.
- Pasta, T., Mendola, M., Longobardi, C., Pino, L. E., & Gastaldi, F. G. M. (2013). Attributional style of children with and without Specific Learning Disability. *Electronic Journal of Research in Educational Psychology, 11*, 649-664.
- Pulec Lah, S. 2005. "Individualizirani program - vodnik za starše. [Individualized Program –Guide Book for Parents]." *Bilten Bravo 1*: 20–23.
- Schmidt, M., Prah, A., & Čagran, B. (2014). Social skills of Slovenian primary school students with learning disabilities. *Educational Studies, 40*(4), 407-422.
- Silver, R. B., Measelle, J. R., Armstrong, J. M., & Essex, M. J. (2005). Trajectories of classroom externalizing behavior: Contributions of child characteristics, family characteristics, and the teacher–child relationship during the school transition. *Journal of School Psychology, 43*, 39–60.
- Vlachou, A., Eleftheriadou, D., & Metallidou, P. (2013). Do learning difficulties differentiate elementary teachers' attributional patterns for students' academic failure? A comparison between Greek regular and special education teachers. *European Journal of Special Needs Education, 29*, 1–15.
- Walden, T., & Ogan, T. (1988). *The development of social referencing*. *Child Development, 59*, 1230–1240.

Child-Teacher Relationship Quality, Homework Problems, Behavior Problems, and Social Adjustment in Students with Learning Disability: A Path Analysis

- White, K. M. (2015). "My Teacher Helps Me": Assessing Teacher-Child Relationships from the Child's Perspective. *Journal of Research in Childhood Education*, 30(1), 29-41.
- Zee, M., de Bree, E., Hakvoort, B., & Koomen, H. M. (2020). Exploring relationships between teachers and students with diagnosed disabilities: A multi-informant approach. *Journal of Applied Developmental Psychology*, 66, 101101.