THESIS

THE BI-DIRECTIONAL ASSOCIATION BETWEEN SPANISH-SPEAKING PRESCHOOLERS' ENGLISH ORAL PROFICIENCY AND STUDENT-TEACHER RELATIONSHIP QUALITIES

Submitted by

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ABSTRACT

THE BI-DIRECTIONAL ASSOCIATION BETWEEN SPANISH-SPEAKING PRESCHOOLERS' ENGLISH ORAL PROFICIENCY AND STUDENT-TEACHER RELATIONSHIP QUALITIES

This study examined the bi-directional association between Spanish-speaking preschoolers' (*N* = 137) English use tendencies and vocabulary skills and the quality of the student-teacher relationship (e.g., close, conflictive, and dependent). Results revealed that children who began preschool in the fall with high English expressive vocabulary skills and a high tendency to use English were more likely to develop close relationships with their teachers the following spring. Further, children with dependent relationships with their teachers in the fall of preschool were more likely to exhibit low English receptive vocabulary skills in the spring. These findings highlight the importance of Spanish-speaking children's English oral proficiency upon school entrance for the development of positive student-teacher relationships, which might be one avenue to foster their school achievement and help close the academic performance gap between Spanish-speaking students and monolingual English speaking peers.

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CHAPTER 1

Prior research suggests that the quality of the relationship that children develop with teachers in school may be associated with their overall school adjustment and academic achievement. Positive student-teacher relationships that are close are likely to foster children's learning in school and preschool settings, whereas negative student-teacher relationships that are dependent or conflictive may hinder their learning (e.g., Birch & Ladd, 1997; Hamre & Pianta, 2001; Justice, Cottone, Mashburn, & Rimm-Kaufman, 2008; Maldonado-Carreno & Votruba-Drzal, 2011). Further, other research suggests that monolingual children's behaviors and academically-related skills, (e.g., their language abilities) upon school entrance may be an important contributor to the quality of the relationship that students form with teachers. In particular, children with pro-social behaviors and high academic abilities are more likely to develop close relationships with their teachers, whereas those exhibiting anti-social behavior and low academic abilities are more likely to develop conflictive or dependent relationships with their teachers (e.g. Birch & Ladd, 1998; Jerome, Hamre, & Pianta, 2008; Rudasill, Rimm-Kaufman, Justice, & Pence, 2006). Thus, the extant evidence supports a bi-directional association between children's behaviors or academic abilities and student-teacher relationship qualities. Investigating this bi-directional association is important because it has the potential to provide a clear understanding of how the student-teacher relationship quality operates with respect to children's early academic performance.

Understanding the association between oral language skills, such as vocabulary and one's tendency to use language, and the student-teacher relationship is particularly important for language-minority (LM) students because many of these students face language barriers that elevate their risk of falling academically behind English monolingual peers. LM children comprise approximately 21% of students in the U.S.; 71% of whom are Spanish-speaking (National Center for Education Statistics [NCES], 2010). Many LM children are at a disadvantage upon entering school because before they can begin learning fundamental academic skills, such as reading, they have to acquire English language skills (Bailey, Burkett, & Freeman, 2008). The challenge this early language barrier poses is evident in that 71% of LM children in 4th grade perform far below their English-speaking peers in school reading assessments, and by 8th grade, 75% of them continue to lag behind (NCES, 2009). Due to the fact that many Spanish-speaking children begin school with limited English language skills, it is important to understand whether this may be a barrier in the development of positive student-teacher relationships, which could foster school achievement and help close this academic gap.

Relatedly, research suggests that LM children's limited oral English proficiency is a critical underlying factor that is associated with their diminished English reading and vocabulary skills (August, Carlo, Dressler, & Snow, 2005; Dickinson & Porche, in press; Lesaux, Crosson, Kieffer, & Pierce, 2010; NICHD Early Care Research Network, 2005; Storch & Whitehurst, 2002). Thus, it is important to identify the factors that are likely to foster Spanish-speaking children's English oral proficiency in preschool, such as the student-teacher relationship, when they are beginning to acquire other fundamental academic skills (Hammer, Farkas, & Maczuga, 2010). Few studies have examined this

association with Spanish-speaking students, though, so questions remain about the extent to which these children's English language skills are associated with the quality of the relationship that they form with teachers. Thus, the goal of the present study was to examine how children's English vocabulary skills (i.e., receptive and expressive) and their tendency to use English upon entering preschool were associated with the quality of the relationship (i.e., close, conflictive, or dependent) that they developed with teachers. More specifically, the present study examined this association in a bi-directional manner; that is, it also examined the extent to which the quality of the student-teacher relationship was associated with Spanish-speaking LM children's English vocabulary skills.

Students' Academic Performance and Student-Teacher Relationships

Children's academic performance and development of academically-related skills, such as vocabulary, is likely to be shaped by social experiences. In other words, the interaction between children's abilities and the learning environment can either foster or hinder school success. Bell (1968) highlighted the importance of this bi-directional perspective of development by suggesting that individuals can influence their own socialization process and by emphasizing the need to look at how the environment is likely to shape an individual's development, how an individual shapes the surrounding environment, and the interaction of both. According to this bi-directional perspective, it is important to view children's learning as a product of an on-going interaction between the individual and their surroundings, including the quality of the relationships that children form with individuals closest to them (Sameroff & Chander, 1975; Sameroff & Mackenzie, 2003). Research suggests that the development of student-teacher relationships is a dynamic process that must take into account individual characteristics

and the behavioral tendencies of children (Myers & Pianta, 2008; Zhang & Sun, 2011). In this study, children's language abilities were considered as individual characteristics and the student-teacher relationship was considered as an environmental influence. As such, it examined the association between the quality of the student-teacher relationship and children's language abilities as a continuous interaction, in which both variables simultaneously influence the other.

Children's positive behavior and academic abilities. Evidence suggests that students' positive behavior in the classroom may be associated with developing close student-teacher relationships. For example, Birch and Ladd (1998) found that children who exhibited high levels of teacher reported pro-social behaviors in kindergarten, including cooperation with peers, were likely to develop close relationships with their teachers in both kindergarten and first grade. Further, Rudasill and Rimm-Kaufman (2008) found that children who were reported by mothers at 54 months as being less shy and exhibiting high levels of effortful control, including the ability to stay focused and respond readily to parents, were likely to develop closer relationships with their first grade teachers than children who were shy and exhibited low levels of effortful control.

Additionally, children's academic abilities upon entering school may be associated with their development of close relationships with teachers. For example, Jerome et al. (2008) found that children who entered kindergarten at 54 months with higher academic achievement, as measured by assessments of children's letter-word identification, ability to solve applied mathematical problems, and use of phonic skills to pronounce unfamiliar words, were more likely to develop close relationships with their teachers during that school year than children who scored low on those same measures of

academic achievement. Thus, children who exhibit pro-social behavior and show high academic abilities when they start school may be more likely to develop close relationships with teachers.

Children's negative school behavior and low academic abilities. Conversely, children's negative behavior and low academic abilities may be associated with the development of conflictive and dependent student-teacher relationships (e.g. Birch & Ladd, 1998; Jerome et al., 2008; Rudasill & Rimm-Kaufman, 2008; Rudasill et al., 2006). For example, Jerome and colleagues (2008) found that children who entered kindergarten with low scores of academic achievement and high maternal reports of externalizing behavior at 54 months were likely to have conflictive relationships with their teachers during that school year. In another study, Rudasill and Rimm-Kaufman (2008) found that children who were shy and exhibited low effortful control at 54 months were likely to develop conflictive relationships with their teachers in first grade.

Relatedly, children's early language skills may also be an important contributor to the quality of the relationships that they form with teachers. Rudasill et al. (2006) examined the association between monolingual English-speaking children's language skills in the fall of preschool and children's temperament and student-teacher relationship qualities the following spring. They found that children who were timid and had low language skills in the fall of preschool, as measured by the mean length of utterances and words that children used when their language was recorded, were more likely to develop conflictive relationships with teachers in the spring. This research supports the idea that it may actually be certain characteristics that children portray when they begin preschool, including academic achievement, language skills, and other behavioral competencies, that

contribute to the quality of the relationship that they form with teachers. Thus, it is important to examine how children's abilities upon school entry are associated with the quality of the relationship that they form with teachers.

Although this research has focused mostly on monolingual English-speaking children, it is reviewed in the present study because at the time of this writing, no studies were known to have examined the association between the student-teacher relationship quality and Spanish-speaking children's English acquisition or academic-related performance. Extrapolating this research to Spanish speakers, it may be that their English language abilities upon school entry is an important factor contributing to the quality of the relationship that they form with their teachers; that is, those children who exhibit high English language skills and a tendency to use English more may develop closer relationships with their teachers than those students who have lower language skills and a tendency to use English less.

An Alternative Model

The above research supports the idea that Spanish-speaking children's English language use tendencies and vocabulary skills are likely to contribute to the quality of the relationship that they form with teachers. However, it may also be the case that the quality of the student-teacher relationship contributes to their English oral proficiency (Bell, 1968; Sameroff & Chandler, 1975; Sameroff & Mackenzie, 2003). This idea stems from attachment theory, which suggests that the quality of the relationships that young children form with those closest to them, such as parents and teachers, is likely to play an integral role in shaping their development and learning (Bowlby, 1969; Weinfield, Sroufe, Egeland, & Carlson, 2008). Empirical evidence supports this idea as well (e.g.,

Arbeau, Coplan, & Weeks, 2010; Birch & Ladd, 1997; Ewing & Taylor, 2009; Howes, Matheson, & Hamilton, 1994; Hamre & Pianta, 2001; Justice et al., 2008; Pianta, Steinberg, & Rollins, 1995; Pianta & Stuhlman, 2004). For example, close student-teacher relationships have been shown to be associated with children's academic abilities, including their language abilities (Birch & Ladd, 1997; Justice et al., 2008).

Positive student-teacher relationships. Prior research suggests that positive student-teacher relationships that are close, warm, and supportive are likely to play an important role in children's academic adjustment, particularly in children's early schooling. For example, Birch and Ladd (1997) found a positive association between close student-teacher relationships and children's scores on assessments of early language and reading abilities, including letter recognition, oral language, and listening skills. The relationships that teachers form with children early in school may also be predictive of children's academic performance. For example, Pianta and colleagues (1995) found that students with close student-teacher relationships in the beginning of kindergarten were likely to exhibit high levels of school competence (including assessments of cognitive and language abilities) across kindergarten and first grade. Further, it has been found that when the relationship quality between teachers and children improved across elementary school, teachers' reports of children's language and math skills also improved (Maldonado-Carreno & Votruba-Drzal, 2011).

The relationship qualities between teachers and students in early education settings may also be important for enhancing children's language skills. In one of the few studies examining the influence of the student-teacher relationship on preschool children's oral language skills, Justice et al. (2008) examined the association between

teacher reports of student-teacher relationship qualities and assessments of children's oral language skills during the fall of preschool. Their results revealed a positive association between having a close student-teacher relationship and children's language comprehension skills in the fall of preschool. Interestingly, student-teacher closeness did not appear to be associated with children's expressive language abilities.

Negative student-teacher relationships. Conversely, research suggests that conflictive or dependent relationships between students and teachers may be associated with negative outcomes for children in school settings. For example, in a study by Hamre and Pianta (2001), a positive association was found between students with negative relationships with teachers in kindergarten and problems throughout elementary school. Specifically, using teacher report data, they found that negative student-teacher relationships in kindergarten were associated with lower grades in reading and math from grades 1 through 6. Similarly, Pianta and colleagues (1995) found that conflictive and dependent student-teacher relationships in the beginning of kindergarten were negatively associated with school competence across kindergarten and first grade. Particularly, they found that children whom teachers perceived as having conflictive or dependent relationships with them in the fall of kindergarten were likely to score lower on assessments of school competence, including cognitive and language ability assessments, in the spring of kindergarten and first grade than children whom teachers perceived as having close relationships with them.

Conflictive and dependent relationships between teachers and students in preschool are also likely to be negatively associated with children's academic readiness for kindergarten, as assessed during the spring of preschool (Palermo, Hanish, Martin,

Fabes, & Reiser, 2007). More specifically, they found that children who had dependent or conflictive relationships with their teachers, as assessed by teacher reports, were likely to exhibit more aggressive behavior in school, including arguing and getting in fights, than children with close student-teacher relationships. Moreover, children's aggressive behavior was positively associated with teacher reports of peer exclusion, which they found to be negatively associated with children's academic readiness – namely, their logical thinking, mathematical, reading, and writing abilities.

The research reviewed above supports the idea that the quality of the relationship that children develop with teachers may play a critical role in children's early learning and school adjustment. More specifically, close student-teacher relationships may promote children's academic achievement, including early development of language skills, whereas conflictive or dependent relationships with teachers may detract from Spanish-speaking children's language development.

The Present Study

The goals of the present study were twofold. The first goal was to identify the extent to which children's English vocabulary skills and tendency to use English contribute to the quality of the student-teacher relationship that they develop. Given that close student-teacher relationships are likely to foster children's later school adjustment and academic achievement, it is important to identify whether Spanish-speaking preschoolers' English oral language skills influenced the quality of the student-teacher relationship (i.e., close, conflictive, and dependent). The secondary goal was to examine the association between the student-teacher relationship quality in the fall of preschool and Spanish-speaking preschoolers' later English vocabulary skills and tendency to use

English. By examining these associations bi-directionally, the present study provides a fuller picture of the extent to which Spanish-speaking children's English oral proficiency contributes to the quality of the relationship that they develop with their teachers and vice versa. Further, if both processes are supported in this study, it will give light to the bi-directional nature of Spanish-speaking children's early English oral proficiency. The following four hypotheses were tested.

Hypothesis 1. Spanish-speaking students' English expressive and receptive vocabulary skills and tendency to use English will be positively associated with close student-teacher relationship qualities across the fall and spring semesters of preschool. Specifically, I expect that children with high levels of English language use tendencies and receptive and expressive vocabulary skills in the fall will exhibit close student-teacher relationships in the spring (Hamre & Pianta, 2001).

Hypothesis 2. Spanish-speaking students' English language use tendencies and vocabulary skills in the fall of preschool will be negatively associated with conflictive and dependent student-teacher relationship qualities the following spring. Specifically, I expect that children with low levels of English language use tendencies and receptive and expressive vocabulary skills in the fall will exhibit conflictive or dependent student-teacher relationships in the spring (Hamre & Pianta, 2001; Rudasill et al., 2006).

Hypothesis 3. Close student-teacher relationship qualities in the fall will be positively associated with Spanish-speaking students' English language use tendencies and expressive and receptive vocabulary skills across the fall and spring semesters of preschool. Specifically, I expect that children with close student-teacher relationships in the fall of preschool will exhibit high levels of English receptive and expressive

vocabulary skills as well as high tendencies to use English in the spring (Birch & Ladd, 1997; Justice et al., 2008; Maldonado-Carreno & Votruba-Drzal, 2011; Pianta et al., 1995).

Hypothesis 4. Conflictive and dependent student-teacher relationship qualities will be negatively associated with Spanish-speaking students' later English language use tendencies and vocabulary skills. Specifically, I expect that children with conflictive or dependent student-teacher relationships in the fall of preschool will exhibit low levels of English receptive and expressive vocabulary skills and low tendencies to use English in the spring (Hamre & Pianta, 2001; Palermo et al., 2007; Pianta et al., 1995).

Method

Participants

The participants in this study were part of a larger longitudinal study examining Spanish-speaking children's readiness for school. The participants were recruited from 10 Head Start (HS) preschool classrooms in a large metropolitan area of the southwest in two cohorts. Each cohort represented a year of data collection. Classrooms were half-day programs, with Spanish-speaking children comprising 70% to 100% of children per classroom. The lead teacher and/or aide in each classroom were fluent in Spanish. It was common for children to hear both English and Spanish in the classroom throughout the day. Bilingual (English/Spanish) researchers went to each participating HS classroom to meet with parents and discuss the study. The researchers discussed the study goals, benefits, and children's role. Parents were then asked to sign a consent form on behalf of their children. All children that participated in the study provided assent. Teachers were also asked to fill out a consent form.

The study sample consisted of 137 HS preschoolers. More than half were boys (57%). Their ages ranged from 43 to 60 months (M = 52.23, SD = 4.42), with age calculated at the beginning of the preschool year. The children were exposed to varying levels of English and Spanish in the home, with 41% of parents only using Spanish, 52% using more Spanish than English, and 7% using more English than Spanish. The majority of students were identified by parents as Mexican or Mexican American (97%). The majority of parents reported earning less than $30,000 annually (86%) and had completed high school or less (70%).

Procedure

Data were collected using a multi-reporter, multi-method approach, including parent reports, teacher reports, naturalistic observations, and standardized assessments for children. Specifically, teachers completed questionnaires on their student-teacher relationship qualities in the fall and spring semesters of preschool. Children were administered standardized assessments to gauge their general cognitive abilities in the fall (to control for children's general cognitive abilities at the start of HS) and English receptive and expressive vocabulary skills during both the fall and spring semesters. Parents completed questionnaires in Spanish during the fall semester that provided demographic information and reports of language use patterns in the home.

Naturalistic observations were gathered indoors and outdoors during each observation day (except during meal times) for about 8 to 10 hours per week throughout the fall of preschool (September to December). Approximately 18 bilingual (English/Spanish; 94% female) observers were trained by faculty and experienced graduate students. They engaged in extensive training (lasting about four weeks), which

included sessions where they observed and coded children's behavior alongside the trainer at a university-sponsored preschool, compared codes, and discussed discrepant cases. Once the observer reached 90% agreement with the trainer, the observer practiced coding alongside an experienced observer at the HS classroom(s) where s/he was assigned for data collection to learn children's names and gain more experience. Observers did not begin collecting data until they could successfully name the children in their assigned classroom(s).

The observers were given a randomly ordered list of participating children in a classroom and observed each child for 15 seconds at a time, following the order on the list. When the observers reached the bottom of the list, they repeated the observations again starting from the top. For each observation, the observers noted whether the target child was speaking English or Spanish. If the target child started speaking Spanish and used one or more words in English or vice-versa during the 15-second observation period, that child's language was categorized as "both." These observational procedures have been successfully used in prior studies of preschoolers' behavior and peer interactions (Hanish, Martin, Fabes, Leonard, & Herzog, 2005; Martin & Fabes, 2001). Across the two years of data collection, a total of 5,008 observations were gathered with 2,092 observations in the fall (M = 17.53, SD = 11.53 per child) and 2,916 in the spring (M = 21.92, SD = 13.05 per child). For the purpose of this study, only the observations pertaining to children's English use were relevant, thus observations denoting children's use of Spanish or both languages were excluded. In the fall, there were 329 observations where children were observed speaking English (M = 2.60, SD = 3.03; per child) and a total of 488 English observations in the spring (M = 3.60, SD = 4.25; per child).

Measures

Student-teacher relationship quality. The student-teacher relationship quality was measured using the Student-Teacher Relationship Scale (STRS; Pianta, 2001). This is a 28-item assessment completed by teachers that reports the quality of the student-teacher relationship as perceived by the teacher. A 5-point Likert scale is used, with items rated from 1 (*definitely does not apply*) to 5 (*definitely applies*). Examples of items for this assessment include "I share an affectionate, warm relationship with this child" and "this child easily becomes angry with me." Separate subscales gauged conflict, dependency, and closeness in the student-teacher relationship. The closeness (α = .79), conflict (α = .88), and dependency subscales (α = .71) were shown to be reliable in this sample.

English expressive vocabulary. English expressive vocabulary skills were measured using the Picture Vocabulary subscale of the Woodcock Johnson III, Revised (WJ-III, R; Woodcock, McGrew, Mather, & Schrank, 2001). This subscale is an assessment of oral language skills. For this scale, the examiner points to a picture and the child must say what the picture is, with each successive item increasing in difficulty. For internal consistency reliability, alpha coefficients were provided for this scale for children age 4 (α = .81) and age 5 (α = .76).

English receptive vocabulary. English receptive vocabulary skills were measured using the Peabody Picture Vocabulary Test, Fourth Edition (PPVT-4; Dunn & Dunn, 2007). The PPVT-4 is administered individually. For this assessment, the examiner reads a word aloud, and the child points to one of four pictures that match the word that was read aloud, with each successive item increasing in difficulty. For internal

consistency reliability, alpha coefficients were provided for this scale for children age 4 (α = .96) and age 5 (α = .97).

English use tendency. Children's tendency to use English was assessed for both the fall and spring semesters using a proportion of their English use based on the frequency counts of English use per child from the naturalistic observations divided by that child's total number of observations in the fall or spring semester. A proportion score was used to account for individual differences in the number of observations. These individual differences in the number of observations across children were due to several factors, including the number of students per classroom and their absences during data collection. To gauge interrater reliability for children's English use, approximately 811 observations across the fall and spring (about 16% of the total observations) were gathered simultaneously and coded independently by two observers. A *kappa* of .88 for children's English use across the fall and spring indicated good levels of agreement between observers.

Control variables. The variable of family level income which was reported by parents on a parent questionnaire was examined as a potential covariate. Children's non-verbal cognitive abilities at the start of preschool were also examined as a potential covariate. Children's general cognitive abilities were measured by the individual version of the Naglieri Nonverbal Ability Test (NNAT-I; Naglieri, 2003). The NNAT-I uses matrix items involving shapes and geometric designs interrelated via spatial or logical organization to gauge children's general cognitive abilities in a culturally neutral manner, regardless of English proficiency levels or socioeconomic background (Naglieri, Booth, & Winsler, 2004). The NNAT-I has been shown to be a reliable (α = .89) and valid

measure that correlates ($r > .50$) with tests of intelligence and achievement, such as the Wechsler Intelligence Scale for Children – 4th Edition and the Stanford Achievement Test – 9 (Naglieri, 2003; Naglieri et al., 2004).

Results

Preliminary and Descriptive Analyses

Means and standard deviations for the main study variables are shown below in Table 1. Further, Table 2 contains the bivariate correlations of the main study variables. Path analysis was used to test the study hypotheses. Discussed first are the main models, which examined the contributions of children's English use tendencies and receptive and expressive vocabulary in the fall on the student-teacher relationship qualities in the spring (i.e., close, conflictive, or dependent). Next, the alternative models were tested to examine the contributions of each of the student-teacher relationship qualities in the fall on children's English use and receptive and expressive vocabulary skills in the spring.

Table 1. *Means and Standard Deviations of Study Variables (N = 137)*

	Fall		Spring	
Variable	*M*	*SD*	*M*	*SD*
Close STRS	3.91	.58	4.03	.63
Conflictive STRS	1.67	.67	1.73	.68
Dependent STRS	1.91	.85	1.97	.66
Eng. Rec. Voc.	33.21	17.35	38.76	19.66
Eng. Exp. Voc.	426.14	23.46	436.01	21.31
English Use	.17	.19	.21	.30

Note. Student-teacher relationship qualities were measured using scores on the STRS. Means and standard deviations for children's English receptive and expressive vocabulary skills are shown. Children's proportion of English use was measured using the proportion of observed English by total number of observations.

For each hypothesized path model tested, a specification search was conducted to identify the model that provided the best fit for the data (MacCallum, 1986). Maximum

likelihood with robust standard errors was used to calculate the standard errors of the model parameter estimates. To assess the fit of each path model tested, multiple fit indices were considered, including the $\chi 2$ statistic, root mean square error of approximation (RMSEA), and the comparative fit index (CFI). Chi-square values that are nonsignificant ($p > .05$) are indicative of good model fit, as well as RMSEA values less than .06 and CFI values above .90 (Hu & Bentler, 1999). Further, for all models, as part of the specification search (see MacCallum, 1986), I set nonsignificant pathways to zero and allowed variables correlated at the bivariate level to estimate freely.

Children's English Oral Proficiency and the Student-Teacher Relationship

The path model designed to test hypothesis 1 examined six direct paths from family income, children's cognitive abilities, close student-teacher relationships, expressive English vocabulary skills, receptive English vocabulary skills, and English use in the fall to close student-teacher relationships in the spring. To account for the effects of children's general cognitive abilities at the start of preschool, a direct path was tested from this variable to close student-teacher relationships. Similarly, to account for the effects of family income levels, I included a direct path from that variable to close student-teacher relationships. As mentioned earlier, I also controlled for prior levels of close student-teacher relationships.

The resulting hypothesized path model provided a moderate fit for the data, $\chi 2$ (137) = 0.00, $p < .001$; CFI = 1.00; RMSEA = 0.00. The paths from children's cognitive abilities and English receptive vocabulary skill were nonsignificant. Figure 1 presents the standardized path coefficients for the revised differential effects model, after conducting the specification search (MacCallum, 1986). This revised model fit the data

well, $\chi 2$ (133) = .99, p = .91; CFI = 1.00; RMSEA = 0.00. The results revealed that family income levels were negatively associated with close student-teacher relationships in the spring. In addition, previous levels of close student-teacher relationships in the fall were positively associated with close student-teacher relationships in the spring. Both children's tendency to use English in the fall and children's English expressive vocabulary skills were positively associated with close student-teacher relationships in the spring. All other paths tested were nonsignificant.

The path model designed to test part of hypothesis 2 tested six direct paths from family income, children's cognitive abilities, conflictive student-teacher relationships, expressive English vocabulary skills, receptive English vocabulary skills, and English use in the fall to conflictive student-teacher relationships in the spring. To account for the effects of children's general cognitive abilities at the start of preschool, one direct path was tested from this variable to conflictive student-teacher relationships. Similarly, to account for the effects of family income levels, I included a direct path from that variable to conflictive student-teacher relationships. As mentioned earlier, I also controlled for prior levels of conflictive student-teacher relationships.

The resulting hypothesized path model provided a moderate fit for the data, $\chi 2$ (137) = 0.00, $p < .001$; CFI = 1.00; RMSEA = 0.00. The paths from children's cognitive abilities, family level income, English expressive vocabulary skills, English receptive vocabulary skills, and children's tendency to use English were nonsignificant. Figure 2 presents the standardized path coefficients for the revised differential effects model. This model fit the data well, $\chi 2$ (126) = 10.72, p = .47; CFI = 1.00; RMSEA = 0.00. The results revealed that previous levels of conflictive student-teacher relationships in the fall

were positively associated with conflictive student-teacher relationships in the spring. All other main paths were nonsignificant.

The path model designed to test the other part of hypothesis 2 tested six direct paths from family income, children's cognitive abilities, dependent student-teacher relationships, expressive English vocabulary skills, receptive English vocabulary skills, and English use in the fall to dependent student-teacher relationships in the spring. To account for the effects of children's general cognitive abilities at the start of preschool, one direct path was tested from this variable to dependent student-teacher relationships. Similarly, to account for the effects of family income levels, I included a direct path from that variable to dependent student-teacher relationships. As mentioned earlier, I also controlled for prior levels of dependent student-teacher relationships.

The resulting hypothesized path model provided a moderate fit for the data, $\chi 2$ (137) = 0.00, $p < .001$; CFI = 1.00; RMSEA = 0.00. The paths from family level income, children's cognitive abilities, English expressive vocabulary skills, English receptive vocabulary skill, and English use were nonsignificant. Figure 3 presents the standardized path coefficients for the revised differential effects model. This model fit the data well, $\chi 2$ (126) = 7.89, $p = .72$; CFI = 1.00; RMSEA = 0.00. The results revealed previous levels of dependent student-teacher relationships in the fall were positively associated with dependent student-teacher relationships in the spring. All other main paths were nonsignificant.

Student-Teacher Relationships and Children's English Oral Proficiency

The path model designed to test hypothesis 3 tested twelve direct paths from expressive English vocabulary skills, receptive English vocabulary skills, English use,

children's cognitive abilities, family income, and close student-teacher relationships in the fall to expressive English vocabulary skills, receptive English vocabulary skills, English use in the spring. To account for the effects of children's general cognitive abilities at the start of preschool, three direct paths were tested from this variable to each expressive English vocabulary skills, receptive English vocabulary skills, and English use in the spring. Similarly, to account for the effects of family income levels, I included direct paths from that variable to all three outcome variables. As mentioned earlier, I also controlled for prior levels of expressive English vocabulary skills, receptive English vocabulary skills, and English use.

The resulting hypothesized path model provided a moderate fit for the data, $\chi 2$ (132) = 6.95, p = .23; CFI = .99; RMSEA = .05. The paths from family level income, children's cognitive abilities, and close student-teacher relationships to children's English use in the spring were nonsignificant. The paths from children's cognitive abilities and close student-teacher relationships to children's expressive English vocabulary skills were nonsignificant. Further, the paths from family level income, children's cognitive abilities, and close student-teacher relationships to children's receptive English vocabulary skills were nonsignificant. Finally, the modification indices suggested accounting for the covariances of children's English receptive vocabulary skills in the spring with their English expressive vocabulary skills in the fall. Further, the modification indices suggested accounting for the covariances of children's English use in the spring with children's receptive English vocabulary skills in the fall and children's receptive vocabulary skills in the fall on children's expressive vocabulary skills in the spring.

Figure 4 presents the standardized path coefficients for the revised differential effects model. This model fit the data well, $\chi 2$ (119) = 12.69, p = .81; CFI = 1.00; RMSEA = 0.00. The results revealed that children's expressive English vocabulary skills in the fall were positively associated with their expressive English vocabulary skills in the spring. In addition, previous levels of children's receptive English vocabulary skills in the fall were positively associated with receptive and expressive English vocabulary skills in the spring. Lastly, children's tendency to use English in the fall was positively associated with their tendency to use English in the spring. All other main paths were nonsignificant.

The path model designed to test part of hypothesis 4 tested twelve direct paths from expressive English vocabulary skills, receptive English vocabulary skills, English use, children's cognitive abilities, family income, and conflictive student-teacher relationships in the fall to expressive English vocabulary skills, receptive English vocabulary skills, English use in the spring. To account for the effects of children's general cognitive abilities at the start of preschool, three direct paths were tested from this variable to each expressive English vocabulary skills, receptive English vocabulary skills, and English use in the spring. Similarly, to account for the effects of family income levels, I included direct paths from that variable to all three outcome variables. As mentioned earlier, I also controlled for prior levels of expressive English vocabulary skills, receptive English vocabulary skills, and English use.

The resulting hypothesized path model provided a moderate fit for the data, $\chi 2$ (132) = 7.14, p = .21; CFI = .99; RMSEA = .06. The paths from family level income, children's cognitive abilities, and conflictive student-teacher relationships to children's

English use in the spring were nonsignificant. The paths from family level income, children's cognitive abilities, and conflictive student-teacher relationships to children's expressive English vocabulary skills were nonsignificant. Further, the paths from family level income, children's cognitive abilities, and conflictive student-teacher relationships to children's receptive English vocabulary skills were nonsignificant. Finally, the modification indices suggested accounting for the covariances of children's English receptive vocabulary skills in the spring with their English expressive vocabulary skills in the fall. Further, the modification indices suggested accounting for the covariances of children's English use in the spring with children's receptive English vocabulary skills in the fall and children's receptive vocabulary skills in the fall on children's expressive vocabulary skills in the spring.

Figure 5 presents the standardized path coefficients for the revised differential effects model. This model fit the data well, $\chi 2$ (118) = 11.81, p = .89; CFI = 1.00; RMSEA = 0.00. The results revealed that children's expressive English vocabulary skills and family level income in the fall were positively associated with their expressive English vocabulary skills in the spring. In addition, previous levels of children's receptive English vocabulary skills in the fall were positively associated with receptive and expressive English vocabulary skills in the spring. Lastly, children's tendency to use English in the fall was positively associated with their tendency to use English in the spring. All other main paths were nonsignificant.

The path model designed to test the second part of hypothesis 4 tested twelve direct paths from expressive English vocabulary skills, receptive English vocabulary skills, English use, children's cognitive abilities, family income, and dependent student-

teacher relationships in the fall to expressive English vocabulary skills, receptive English vocabulary skills, English use in the spring. To account for the effects of children's general cognitive abilities at the start of preschool, three direct paths were tested from this variable to each expressive English vocabulary skills, receptive English vocabulary skills, and English use in the spring. Similarly, to account for the effects of family income levels, I included direct paths from that variable to all three outcome variables. As mentioned earlier, I also controlled for prior levels of expressive English vocabulary skills, receptive English vocabulary skills, and English use.

The resulting hypothesized path model provided a moderate fit for the data, $\chi 2$ (132) = 9.86, p = .08; CFI = .98; RMSEA = .08. The paths from family level income, children's cognitive abilities, and dependent student-teacher relationships to children's English use in the spring were nonsignificant. The paths from children's' cognitive abilities to children's expressive English vocabulary skills were nonsignificant. Further, the paths from family level income and children's cognitive abilities to children's receptive English vocabulary skills were nonsignificant. Finally, the modification indices suggested accounting for the covariances of children's English receptive vocabulary skills in the spring with their English expressive vocabulary skills in the fall. Further, the modification indices suggested accounting for the covariances of children's English use in the spring with children's receptive English vocabulary skills in the fall and children's receptive vocabulary skills in the fall on children's expressive vocabulary skills in the spring.

Figure 6 presents the standardized path coefficients for the revised differential effects model. This model fit the data well, $\chi 2$ (120) = 21.79, p = .19; CFI = .98;

RMSEA = 0.05. The results revealed that children's expressive English vocabulary skills, receptive English vocabulary skills, and family level income in the fall were positively associated with their expressive English vocabulary skills in the spring. In addition, previous levels of children's receptive English vocabulary skills, their expressive English vocabulary skills, and dependent student-teacher relationships in the fall were positively associated with receptive English vocabulary skills in the spring. Lastly, children's tendency to use English in the fall was positively associated with their tendency to use English in the spring. All other main paths were nonsignificant.

Discussion

The purpose of this study was to examine the bi-directional association between Spanish-speaking preschoolers' English oral proficiency (i.e., English use tendencies and receptive and expressive vocabulary skills) in preschool and the quality of the relationship with their teachers (i.e., close, conflictive, or dependent) across the fall and spring semesters. By examining these associations in a bi-directional manner, this study provided a full picture of Spanish-speaking preschoolers' early English oral proficiency as it relates to quality of their relationship with teachers. Because prior research has investigated the relation between the student-teacher relationship of monolingual English speakers and their academic achievement, this study extended this literature by providing insight into the role that this association plays in Spanish-speaking students' early school achievement – namely, their early English oral proficiency skills.

This section is organized as follows. First, the results examining the association between Spanish-speaking students' English oral proficiency in the fall of preschool and the student-teacher relationship qualities in the spring will be discussed. Next, I discuss

the results of the association between the student-teacher relationship qualities in the fall and Spanish-speaking students' English oral proficiency in the spring. Lastly, I discuss the limitations of the study, suggestions for future research, and conclusions.

English Oral Proficiency as a Predictor of Student-Teacher Relationship Qualities

With respect to hypothesis 1 – that high levels of English language use tendencies and receptive and expressive vocabulary skills in the fall would promote close student-teacher relationships in the spring – the results revealed that students with high English expressive vocabulary skills and a high tendency to use English at the start of preschool had close relationships with their teacher at the end of year (controlling for family income levels, children's general cognitive abilities, and prior levels of close student-teacher relationships). This supports the idea that Spanish-speaking children who are able to communicate in English at the beginning of preschool are more likely to develop close relationships with their teachers. High levels of English oral proficiency might allow Spanish-speaking preschoolers to talk to teachers regularly, ask questions, go to teachers for help, and interact with teachers informally, thereby facilitating the development of a close relationship with them.

This finding is consistent with prior research suggesting that monolingual English-speaking students with high levels of academic and language abilities at school are more likely to develop close relationships with their teachers (Jerome et al., 2008), and close student-teacher relationships are likely to foster pro-social behavior (Birch & Ladd, 1998), school competence (Pianta et al., 1995), and academic achievement (Justice et al., 2006). These results provide important implications for Spanish-speaking students as they begin school in the U.S. by suggesting that students exhibiting high English oral

proficiency skills may have an advantage upon entering preschool compared with those who exhibit low levels of English oral proficiency skills.

Interestingly, the findings did not support hypothesis 2, which examined whether high levels of English use tendencies and receptive and expressive vocabulary skills in the fall diminished Spanish-speaking preschoolers' conflict and dependency levels with teachers in the following spring. This contradicts prior research findings with monolingual English-speaking students, which suggests that students with low levels of academic or language abilities at the start of preschool are more likely to develop conflictive relationships with their teachers than English-speaking students with high levels of academic or language abilities (Jerome et al., 2008; Rudasill et al., 2006). Perhaps teachers' bilingual status was an important factor that buffered the risk between low English oral proficiency and developing conflictive relationships with teachers. Due to the fact that teachers could communicate in Spanish with students who exhibited low English oral proficiency at the start of preschool, students' inability to communicate in English may not have contributed to more conflict.

With respect to student-teacher dependency, it may be that children's temperament plays a more important role in contributing to the development of dependent relationships with teachers than children's language abilities. For example, a timid child may be more likely to become dependent on their teacher regardless of their English oral proficiency. Similarly, children who are timid may be less likely to use English in the classroom even if they have a good proficiency to understand and communicate in the language. Further, for some of these students, this may be the first time they are interacting with adults other than their parents. These children may exhibit

anxiety in the classroom due to new experiences and new people, which could facilitate a dependency on their teacher. Thus, children's temperament or personality may be a more important contributor to the development of dependent relationships with teachers than the child's language abilities.

Student-Teacher Relationship Quality as a Predictor of English Oral Proficiency

To investigate the bi-directional nature of the association between children's English oral proficiency and student-teacher relationship quality, the quality of the relationship that children formed with teachers in the fall was examined as a predictor of their English oral proficiency in the spring. The findings did not support hypothesis 3, which proposed that children who were close with their teachers in the fall would develop high levels of English receptive and expressive vocabulary skills as well as high tendencies to use English in the spring. The findings suggested that students' prior levels of English vocabulary skills and tendencies to use English are stronger predictors of their later English oral proficiency across the preschool year (August et al., 2005; Dickinson & Porche, in press; Lesaux et al., 2010; NICHD, 2005; Storch & Whitehurst, 2002). Specifically, children's English oral proficiency (i.e., English use tendencies, expressive and receptive vocabulary skills) in the fall was positively and strongly associated with their oral proficiency in the spring, suggesting that close student-teacher relationships in the fall did not account for unique variance in children's oral proficiency in the spring above and beyond children's previous linguistic abilities. Further, some research (e.g., Maldonado-Carreno & Votruba-Drzal, 2011) suggests that Spanish-speaking students may need the span of the year to develop close relationships with their teachers instead of the short amount of time at the start of preschool. By providing more time for students to

develop close relationships with their teachers, they may be able to gain confidence in using English and have more opportunities to interact with their teachers as the year progresses.

In partial agreement with hypothesis 4 – that children who are conflicted with or dependent on their teacher in the fall of preschool will exhibit low levels of English receptive and expressive vocabulary skills and low tendencies to use English in the spring - results revealed that children with dependent relationships with their teachers at the beginning of preschool exhibited low English receptive vocabulary skills in the spring (controlling for family income level, children's general cognitive abilities, and prior levels of children's vocabulary skills and tendency to use English). It is interesting that dependent student-teacher relationships were significantly associated with this outcome variable, but conflictive relationships were not. Previous research has shown that many preschool classrooms have low levels of conflict in general (Birch & Ladd, 1997; Justice et al., 2006). It may be that conflictive student-teacher relationships were not significantly associated with children's English oral proficiency due to low levels of conflict in the preschool classroom as mean levels of student-teacher conflict in this study were lower than mean levels of both dependent and close relationships. Further, it might be the case that Spanish-speaking students exhibited less confidence in the classroom when using English, contributing to less communication with others. Children who are less confident may become more dependent on teachers at the start of preschool as opposed to more talkative children who may disrupt class and develop conflictive relationships with their teachers.

The finding that children who are more dependent on teachers in the fall may be less likely to develop high receptive vocabulary skills in the spring suggests that students' temperament, including shyness, plays a role in the development of relationships with their teachers (Rudasill & Rimm-Kaufman, 2008). In other words, children who exhibit a more timid personality and show less confidence in speaking in the classroom may be less likely to talk to other peers and teachers in their classroom and may not have as many opportunities to develop and practice their English skills. Further, fewer interactions with others in the classroom due to a dependent relationship with one teacher may inhibit children from hearing English from multiple sources in the classroom. In this sense, these students may be less likely to develop receptive vocabulary skills than their less timid and more confident Spanish-speaking peers.

Limitations and Future Directions

One limitation to this study is that it was only a short-term longitudinal study (across one year) and did not follow students into early elementary school. Future studies should examine whether children's English oral proficiency at the start of preschool is still an important predictor of the quality of the relationship that children develop with teachers in early and late elementary school, as well as whether this relationship is continuous or changing as they progress through school. As students develop better English oral proficiency, they may, in turn, develop closer relationships with their teachers, securing some of the benefits that come from these relationships. Relatedly, the development of closer relationships with teachers as children progress through school could promote their English oral proficiency, even if they began preschool with low language abilities.

Given that the present study is one of the first to examine these associations with Spanish-speaking students, more studies need to be conducted in order to provide a better understanding of the findings. Further, this study only examined children's oral language abilities, without taking into consideration their temperament or sociability, therefore, future studies should also consider other personality variables, such as how timid a child is or children's tendencies to experience anxiety in the classroom, along with English oral proficiency in order to understand how these variables may be interacting. For example, prior research has shown that monolingual English-speaking children who are shy with low language abilities are more likely to develop conflictive relationships with their teachers (Rudasill et al., 2006), and this process may be similar for Spanish-speaking children. Additionally, Spanish-speaking children's high English oral proficiency may act as a buffer for children who are more timid or experience more anxiety in the classroom.

Another limitation to this study is that it only considered teacher-reports of the quality of the student-teacher relationships. This does not take into consideration children's perceptions of the quality of the relationship or individual differences between teachers in reporting the quality of the relationship. Although this method has been used in many studies (e.g., Birch & Ladd, 1997; Birch & Ladd, 1998; Hamre & Pianta, 2001; Jerome et al., 2008; Rudasill & Rimm-Kaufman, 2008; Rudasill et al., 2006), future research should consider using multiple methods, such as objective observations (Rudasill & Rimm-Kaufman, 2008) or discussions with children, when assessing the quality of the student-teacher relationship.

Conclusion

This study is one of the first studies to look at the association between Spanish-speaking preschoolers' English oral proficiency and student-teacher relationship qualities. Due to the large increase in LM students in the U.S. (NCES, 2010), it is important to better understand the processes that promote Spanish-speaking students' English language development, particularly that of the student-teacher relationship, as their English language abilities are considered important predictors of their later success in school (Bailey, Burkett, & Freeman, 2008). Further, language ability, particularly the need to communicate in English in the classroom, is important for these children to not only develop an academic foundation through learning, but also to communicate with others in order to promote friendships and foster positive social experiences, enhance their relationships with adults outside of the home environment, and ultimately become contributing individuals in a society that initially puts them at risk for failure. This study provides many implications for future research, policy, and practice as it relates to early school experiences for Spanish-speaking students. While there is already a wide academic achievement gap between Spanish-speaking students and monolingual English-speaking students (NCES, 2009), this study supports the idea that those students who begin school with less English oral proficiency may be at even more risk for school failure than those students with higher English oral proficiency.

The findings show that Spanish-speaking students with high English language abilities are more likely to develop close relationships with their teachers; consequently, these students are more likely to gain the many academic and social benefits that accrue when children are close with their teachers. Early education, particularly preschool, for

Spanish-speaking students may need to place more of an emphasis on promoting English language for these students before they begin the transition into kindergarten; moreover, this may be a critical time for intervention to foster English development for those students who have less English expressive vocabulary skills. It may also be important to promote teacher awareness about the specific needs of children who begin preschool with low English language proficiency.

Table 2. *Bivariate correlations of study variables (N = 137)*

		1	2	3	4	5	6	7	8	9	10	11
1	Close STRS (f)											
2	Conf STRS (f)	-.35***										
3	Dep STRS (f)	.16	.31***									
4	Eng Rec Voc (f)	.17*	.02	.12								
5	Eng ExpVoc (f)	.22**	.10	.14	.75***							
6	English Use (f)	.14	.09	.16	.53***	.52***						
7	Close STRS (s)	.54***	-.14	.37***	.32***	.36***	.38***					
8	Conf STRS (s)	-.13	.60***	.11	-.07	.02	.03	-.28***				
9	Dep STRS (s)	.10	.22**	.39***	-.00	.10	-.03	.21*	.37***			
10	Eng Rec Voc (s)	.10	.03	-.20*	.68***	.59***	.38***	.15	-.01	-.02		
11	Eng Exp Voc (s)	.15	.03	-.03	.70***	.76***	.48***	.16	.01	-.09	.63***	
12	English Use (s)	.16	-.01	-.01	.51***	.46***	.67***	.30***	.15	.14	.34***	.37***

Note. Maximum likelihood was used for handling cases with missing data. Data collected in the fall and spring are indicated by (f) and (s). Student-teacher relationship qualities (Close, Conflictive, and Dependent) were measured using scores on the STRS. Children's proportion of English use was measured using the proportion of observed English by total number of observations.
**$p < .05$, ***$p < .01$, ****$p < .001$

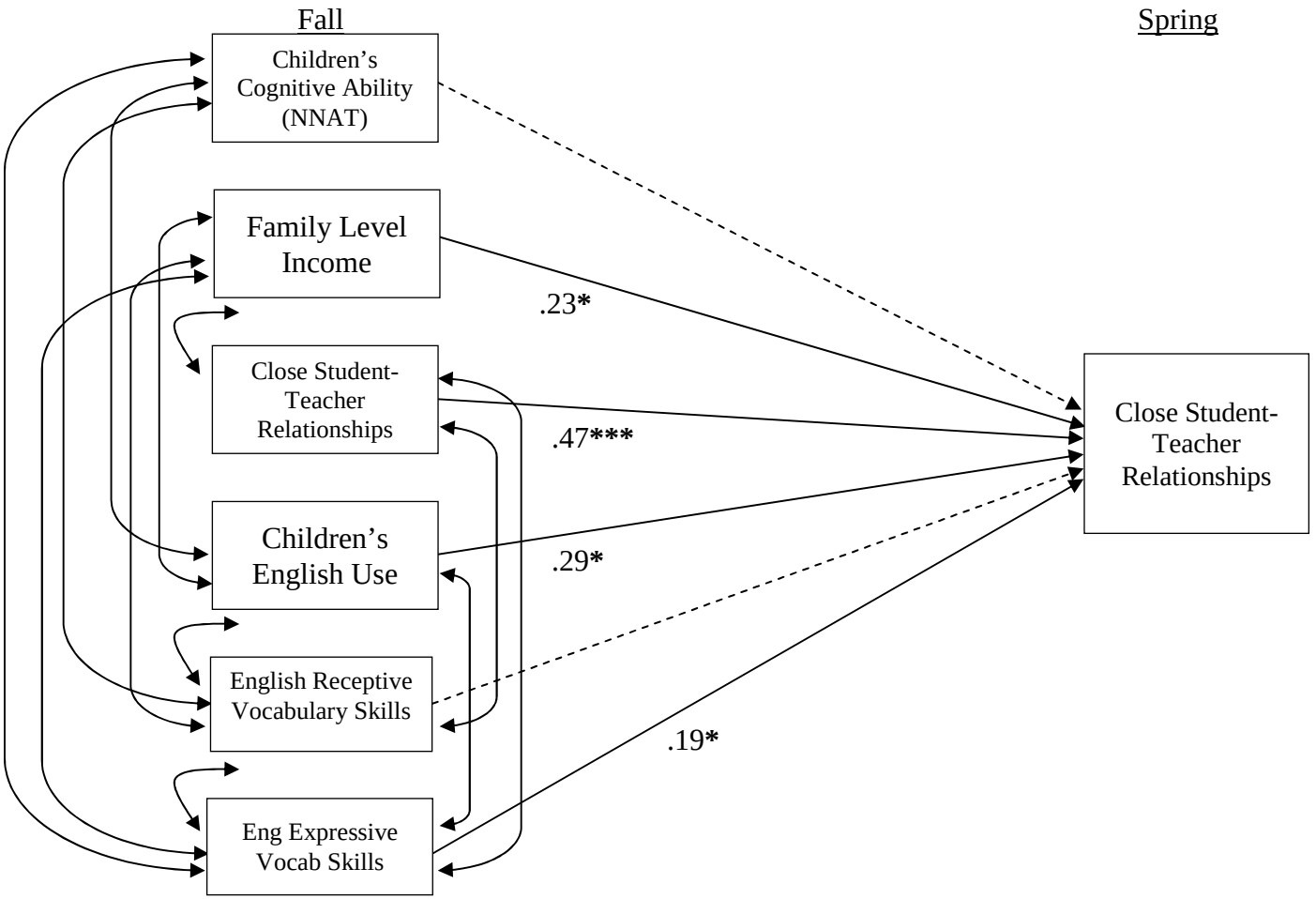

Figure 1. Standardized effects of Spanish-speaking preschoolers' English use and vocabulary skills on close student-teacher relationships.
Note. Coefficients for covariances are not listed. *$p < .05$, **$p < .01$, ***$p < .001$

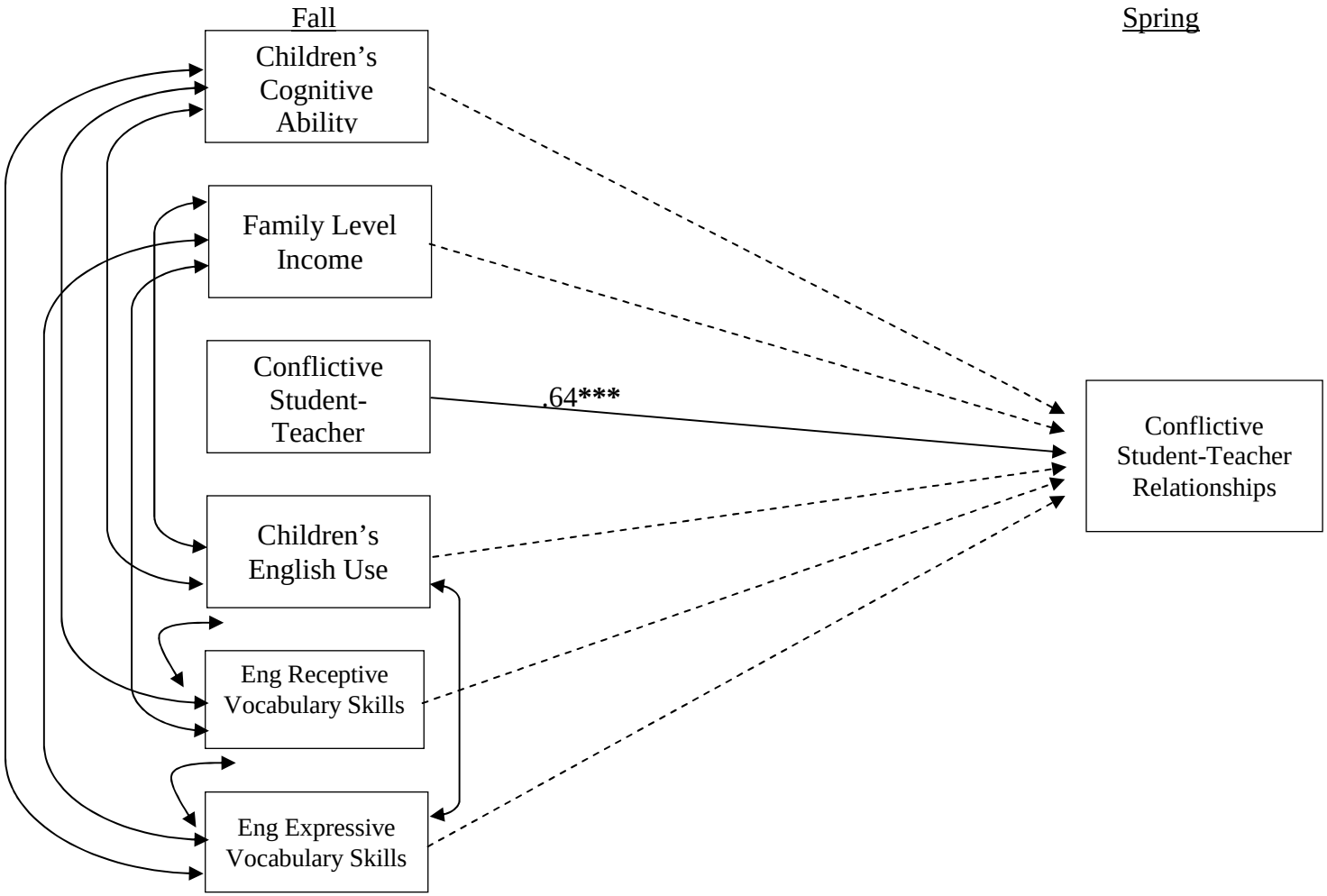

Figure 2. Standardized effects of Spanish-speaking preschoolers' English use and vocabulary skills on dependent student-teacher relationships.
Note. Coefficients for covariances are not listed. *$p < .05$, **$p < .01$, ***$p < .001$

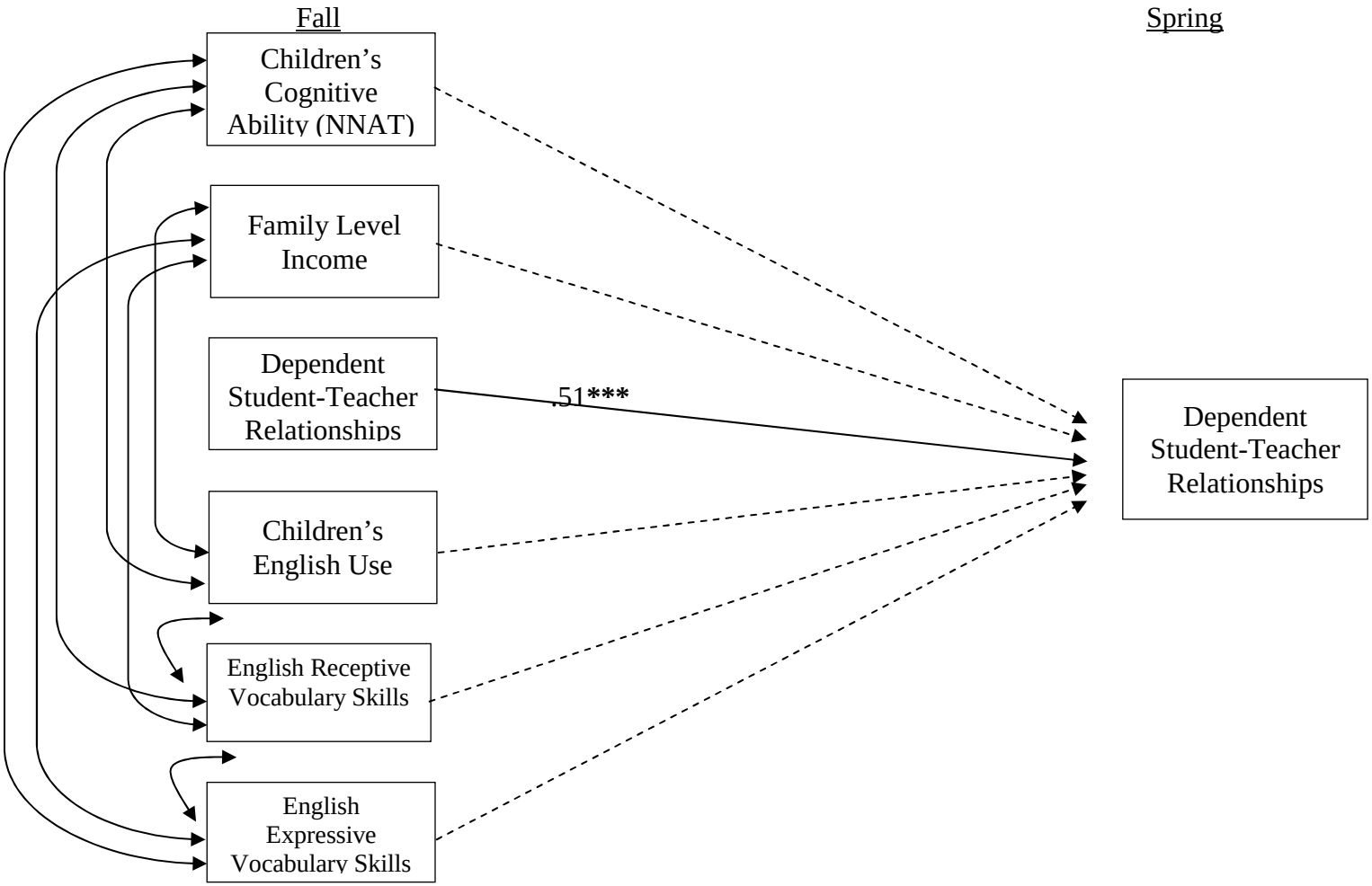

Figure 3. Standardized effects of Spanish-speaking preschoolers' English use and vocabulary skills on dependent student-teacher relationships.
Note. Coefficients for covariances are not listed. *$p < .05$, **$p < .01$, ***$p < .001$

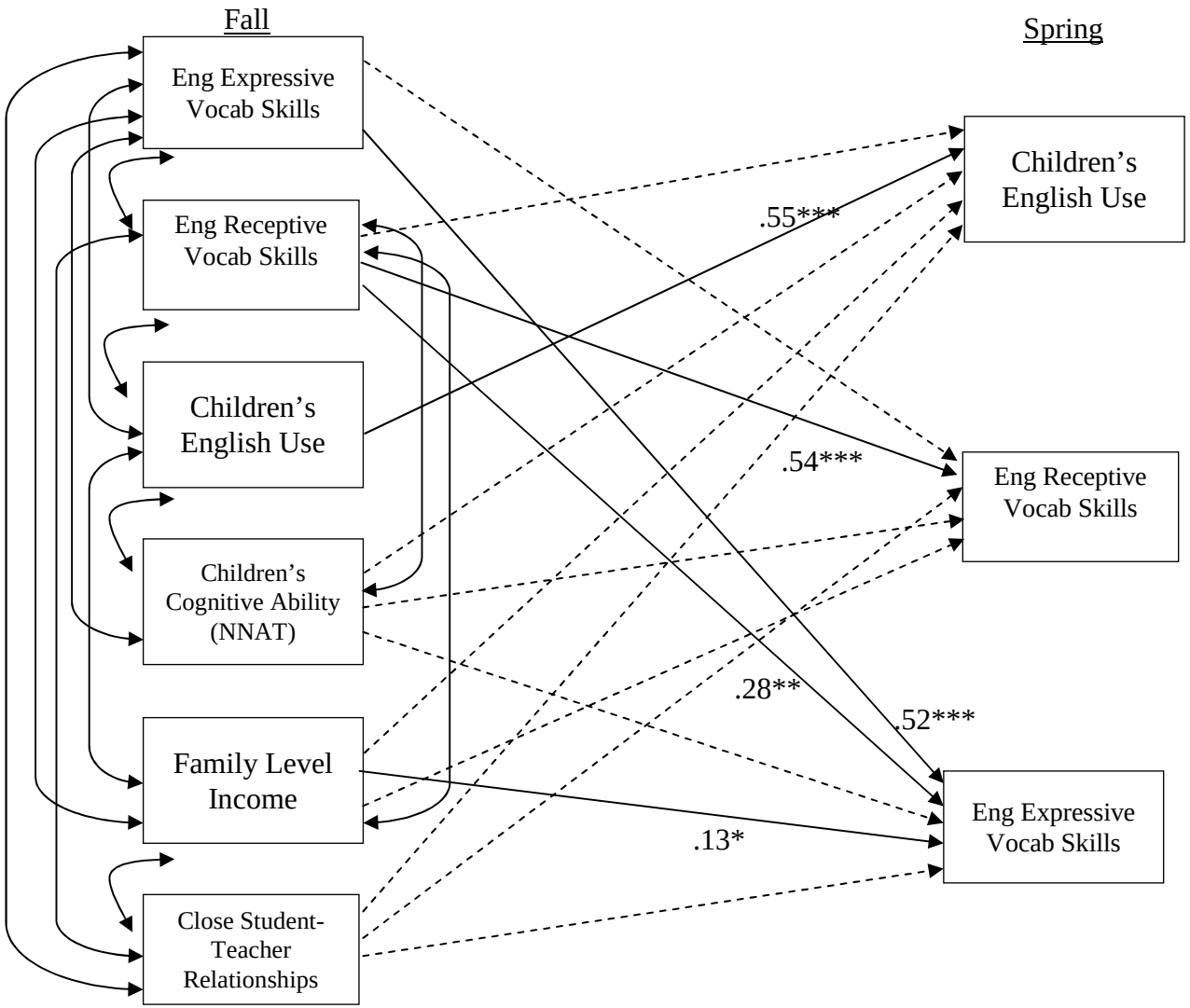

Figure 4. Standardized effects of close student-teacher relationships on Spanish-speaking preschoolers' English use and vocabulary skills.

Note. Coefficients for covariances are not listed. *$p < .05$, **$p < .01$, ***$p < .001$

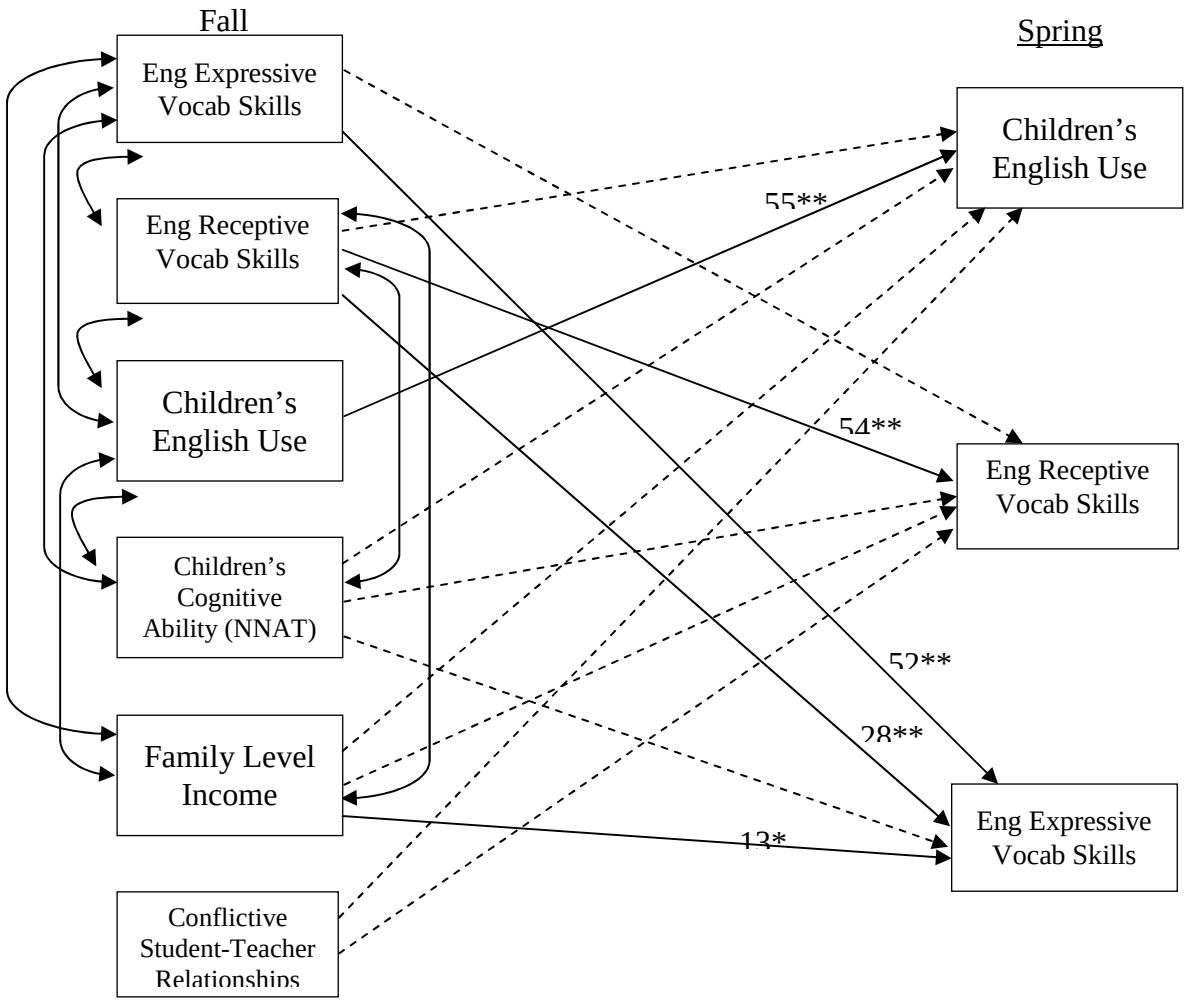

Figure 5. Standardized effects of conflictive student-teacher relationships on Spanish-speaking preschoolers' English use and vocabulary skills.
Note. Coefficients for covariances are not listed. *$p < .05$, **$p < .01$, ***$p < .001$

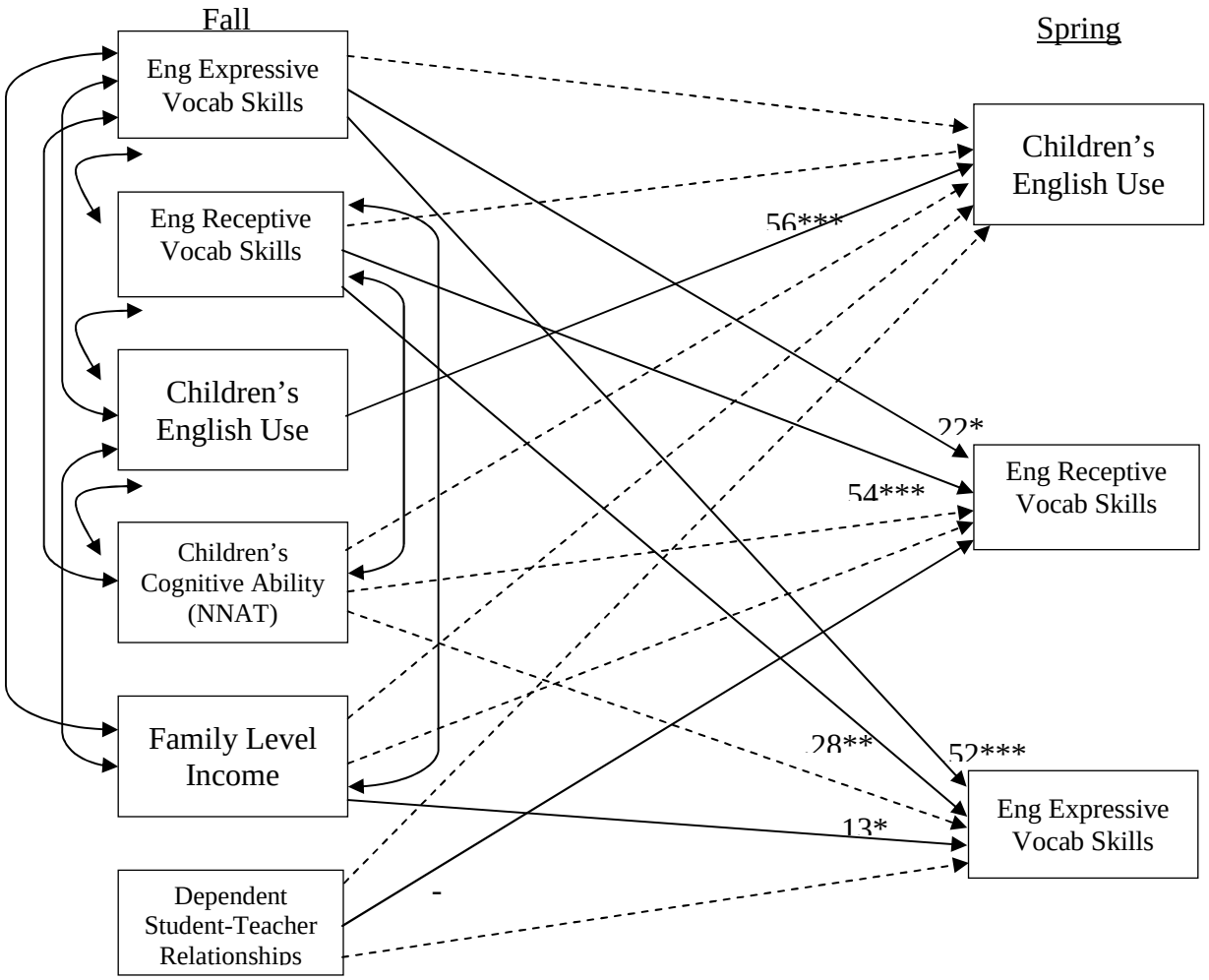

Figure 6. Standardized effects of dependent student-teacher relationships on Spanish-speaking preschoolers' English use and vocabulary skills.
Note. Coefficients for covariances are not listed. *$p < .05$, **$p < .01$, ***$p < .001$

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Appendix 1: Additional Literature Reviewed

Introduction

Language-minority (LM) children comprise approximately 21% of students in the U.S.; 71% of whom are Spanish-speaking (National Center for Education Statistics [NCES], 2010). Due to the fact that most schools in the U.S. instruct in English-only, many LM children are at a disadvantage upon entering kindergarten. This is because before they can begin learning the expected academic skills, such as literacy and math, they have to acquire English language skills in order to comprehend their teachers' instruction and participate in classroom learning activities (Bailey, Burkett, & Freeman, 2008). The challenge this early language barrier poses is evident in that 71% of LM children in 4th grade perform far below their English-speaking peers in school reading assessments, and by 8th grade, 75% of them continue to lag behind (NCES, 2009). Such academic difficulties have been associated with long-term school adjustment problems, including dropping out of high school (Alexander, Entwisle, & Kabbani, 2001). In fact, national data suggest that LM students comprise 31% of high school dropouts (NCES, 2004). In comparison, monolingual English-speaking youth comprise 10% of all high school dropouts. Thus, it is important to identify the factors that are likely to foster LM children's early school success, particularly for Spanish-speaking LM children due to their majority.

Prior research suggests that LM children's limited English proficiency is likely to be a critical factor underlying their early English reading abilities (August, Carlo, Dressler, & Snow, 2005), and that English vocabulary skills are an important predictor of children's early reading ability (Dickinson & Porche, in press; Lesaux, Crosson, Kieffer, & Pierce, 2010; NICHD Early Care Research Network, 2005; Storch & Whitehurst,

2002). For example, studies with monolingual English-speaking children suggest that children's receptive and expressive vocabulary skills in preschool are likely to foster their English reading comprehension skills in third grade (NICHD, 2005; Storch & Whitehurst, 2002). Extrapolating this evidence to Spanish-speaking children would suggest that enhancing their English vocabulary skills in preschool might facilitate their transition into school by maximizing their ability to enter kindergarten ready to learn. Thus, it is important to identify the factors that are likely to foster Spanish-speaking children's English vocabulary skills in preschool, when children are acquiring fundamental academic skills that are likely to facilitate their ability to learn once in school (Hammer, Farkas, & Maczuga, 2010).

One factor that is likely to play a critical role in shaping Spanish-speaking children's learning in preschool is the quality of the relationship that they form with teachers. In general, research with English-speaking samples suggests that children who develop close and supportive relationships with their teachers are likely to adjust to school demands and perform better academically than those who develop negative relationships with teachers and may, as a result, exhibit difficulty adjusting to school and performing well academically (e.g., Birch & Ladd, 1997; Hamre & Pianta, 2001; Justice, Cottone, Mashburn, & Rimm-Kaufman, 2008; Maldonado-Carreno & Votruba-Drzal, 2011). It is important to note that few studies have examined the association between the student-teacher relationship quality and Spanish-speaking children's early academic adjustment. Thus, questions remain about the extent to which the student-teacher relationship quality is associated with Spanish-speaking children's acquisition of English.

The main goal of this study is to examine the extent to which the student-teacher relationship quality (i.e., close, conflictive, or dependent) in the fall of preschool is associated with Spanish-speaking preschoolers' English receptive and expressive vocabulary skills the following spring. It is expected that children who form close relationships with their teachers in the fall of preschool will perform better on assessments of English receptive and expressive vocabulary during the spring than those who form conflictive or dependent relationships with their teachers in the fall.

However, it is important to consider the possibility that Spanish-speaking children's English vocabulary skills in preschool contribute to the relationship quality that they form with teachers. Research with monolingual English-speaking students has found that the academic and language skills may be associated with the relationship qualities that they develop with their teachers (e.g. Jerome, Hamre, & Pianta, 2008; Rudasill, Rimm-Kaufman, Justice, & Pence, 2006). Thus, the secondary goal of this study is to examine the extent to which Spanish-speaking students' English receptive and expressive vocabulary skills in the fall are associated with student-teacher relationship quality (i.e., close, conflictive, or dependent) in the spring. It is expected that children who exhibit high levels of English receptive and expressive vocabulary skills in the fall will develop closer relationships with their teachers in the spring, whereas those who exhibit lower levels of English receptive and expressive vocabulary skills will likely develop more dependent or conflictive relationships with teachers. By examining the bidirectional association, the findings will provide a fuller picture of the association between the student-teacher relationship quality and Spanish-speaking children's English vocabulary skills in preschool.

Theoretical Framework

The idea that the quality of the relationships that children form with those closest to them, such as parents and teachers, is likely to play an integral role in shaping young children's development and learning stems from attachment theory (Bowlby, 1969; Weinfield, Sroufe, Egeland, & Carlson, 2008). Attachment theory describes two types of attachments: secure and insecure. Secure attachments are those that support children's development the most by providing children with confidence and a secure base (i.e., the parent) that enables them to explore novel environments while at the same time providing comfort and support when they are distressed (Bowlby, 1969; Weinfield et al., 2008). Parents who are consistent in providing nurturance and care to their children are likely to develop trusting relationships with them. Further, children who form secure attachments with their parents generally develop autonomy, confidence, and social competence, which may be important for children's future adjustment (Weinfield et al., 2008).

Conversely, insecure attachments between children and their parents do not support children's developmental needs as well as those that are secure; these attachment relationships may even promote anxiety or anger in children (Bowlby, 1969; Weinfield et al., 2008). When parents are inconsistent in providing comfort and security, children are less likely to develop close relationships with them (Weinfield et al., 2008). Further, insecure attachments may hinder children's autonomy and exploration, which may detract from their later adjustment. Thus, the quality of the relationships that young children form with those closest to them is likely to play an important role in their development.

Although not specific to the quality of the relationships that children form with teachers, attachment theory provides a framework for studying how the relationship qualities between children and teachers in the classroom may impact children's learning in preschool (e.g. Howes, & Hamilton, 1992; Howes, Hamilton, & Matheson, 1994; Howes, Matheson, & Hamilton, 1994; Howes, Phillipsen, & Peisner-Feinberg, 2000; O'Connor & McCartney, 2006; Pianta & Nimetz, 1991; Pianta & Steinberg, 1992). Positive student-teacher relationships may operate in a similar manner as secure parent-child relationships by providing supportive and trusting relationships between the student and the teacher (Howes et al., 2000; Pianta & Nimetz, 1991). Students with positive relationships with their teachers are likely to obtain the support that they need, while still exploring the classroom environment and socializing with peers. Positive student-teacher relationships may also be important for young children's social competence and peer interactions (Howes et al., 1994; Howes et al., 1994). These relationships may foster students' learning by creating an inclusive classroom environment that is conducive to achievement, hence providing opportunities for early school success (Howes et al., 2000).

Conversely, negative student-teacher relationships are not likely to benefit either the student or the teacher (Pianta & Nimetz, 1991). For example, a student who is too dependent on a teacher may rely heavily on that teacher for help and show more anxiety or inhibition when exploring the environment. Tension between a student and teacher may impede a child from communicating needs or concerns to the teacher or looking to the teacher for support (Pianta & Nimetz, 1991). These relationship dynamics may lead to a classroom environment that is less conducive to early learning. Therefore, negative student-teacher relationships may be negatively related to children's academic

achievement, failing to foster children's school success (Pianta & Nimetz, 1991). In the current study, attachment theory is used as the framework for examining the importance of student-teacher relationships in preschoolers' academic achievement, specifically Spanish-speaking children's English vocabulary skills.