An Examination of Self-Regulation Through Teacher-Child Relationships on Kindergarten Students’ Reading Achievement and Classroom Behavior

by
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Abstract

An Examination of Self-Regulation Through Teacher-Child Relationships on Kindergarten Students’ Reading Achievement and Classroom Behavior. Katie Jo Sanchez, 2018: Applied Dissertation, Nova Southeastern University, Abraham S. Fischler College of Education. Keywords: Kindergarten, behavior, elementary schools, student achievement, teaching strategies, student engagement, positive teacher-student relationships

This applied dissertation was designed to provide strategies and information on teacher-student relationships and self-regulation information and strategies for primary elementary school teachers. Kindergarten students are occasionally off-task and are disruptive to the class and teacher. These behaviors affect the outcome of student achievement in reading. The relationships between the teacher and students have an impact on instructional and independent learning. The purpose of this study was to determine how self-regulation through high-quality teacher-child relationships affects kindergartners’ reading performance and off-task behaviors at a Title I elementary school in South Florida.

Archival data was collected on the Letter Names and Sounds Assessment in August and October of 2016, as well as on the Student Engagement Walkthrough Checklist, which was used to assess students’ on and off-task behaviors in two kindergarten classes. The data was compared using independent samples t tests. The results implied there was no significant difference in the reading scores between the two kindergarten classes at the beginning of the school year or 3 months into the school year. The time-on-task data included engaging activities such as positive body language, consistent focus, verbal participation, student confidence, and fun and excitement. There was no significant difference in any of the activities except student confidence. The students in the classroom with a high-quality teacher-student relationship had higher confidence than the classroom without a high-quality teacher-student relationship.
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Chapter 1: Introduction

Statement of the Problem

According to West and Zill (2001), “Nearly one entering kindergartner in five is reported to be more active than his or her peers, which indicates that the child has a greater vulnerability to poorer grades and less academic attainment in the future” (p. 8).

The present study focused on how positive teacher-student relationships influenced kindergartner’s time-on-task and their reading performance in a Title I school in South Florida. The intent of this study was to examine how self-regulation through high-quality teacher-child relationships affects kindergartners’ reading performance and off-task behaviors. The researcher also determined what causes the distractions that influence kindergartner’s time time-on-task during whole-group instruction and small-group instruction

The research problem. Student achievement is affected by various behavior problems in many elementary school classrooms. The problem addressed in this study was kindergarten students have problems staying on task during instruction at a Title I elementary school in South Florida, which was negatively affecting their reading achievement. Time-on-task refers to the segment of instructional time allocated to a content area during which kindergarten students are dynamically and effectively engaged in learning (Gettinger & Seibert, 2010). The inability of a student to stay on task during academic instruction is caused by inappropriate behavior (Carrell & Hockston, 2009). These behavior problems may be caused by environmental influences such as family problems or other demographic variables. Students will continue to lack the skills needed to raise their reading achievement unless educators and parents are aware of the causes of
these inappropriate behaviors (Carrell & Hoekstra, 2009).

**Background and justification.** Kindergarten students at a Title I South Florida elementary school displayed off task behavior during instructional time by getting out of their seat, speaking out of turn, and deterring other students. A functional behavior assessment (FBA) indicates that adverse environmental conditions are a result of students with behavioral and emotional disorders. The philosophy of functionalism emphasizes the need to understand the controlling variables of the behavior and not to focus on the behavior that is occurring (Atler, McQuillan, & Scott, 2010). The implementation of Schoolwide Positive Behavioral Interventions and Supports (SWPBIS) program found reducing the rates of behavior problems in the classroom could increase student academic outcomes (Bradshaw, Mitchell, & Leaf, 2010). Students who repeatedly engage in problem behavior most likely do it because the behavior is being reinforced. This behavior is functional and serves a purpose. SWPBIS provides the opportunity for teachers to intervene prior to the behavior occurring using positive feedback and interventions (Bradshaw et al., 2010).

Suspending students from school due to inappropriate behavior does not reduce anti-social behavior and implementing punitive measures without teaching socially appropriate behaviors can actually intensify the problem (Smith & Stormont, 2011). Students with behavioral disorders repeatedly display off task and disruptive behavior in classroom settings, which result in decreased academic proficiency (Blood, Crouch, Johnson, Ridenour, & Simmons, 2011). Nationally, one in six kindergartners (13%) are described as having difficulty paying attention for sustained periods resulting in frequent off-task behaviors during instructional time (West & Zill, 2001).
Bandura’s (1977) social learning theory influences the development of learning and elicits all types of learning. The social learning theory proposes learning can occur by observing the actions of others. A social element, observational learning, was added arguing that people can learn new information and behaviors by watching other people (Bandura, 1969).

According to Daniels and Shumow (2003), kindergarten students learn in groups and not in isolation. The observational learning element indicates learning takes place in a social context. Classroom environments provide opportunities for students to develop relationships, or social connections with peers and the teacher.

The social learning theory, developed by Albert Bandura (1977), expands on operant conditioning indicating that imitation or observational learning increases the chances that children will learn new behaviors. In general, behaviorists believe children's development is shaped by environmental stimuli that are outside of their own influence (Daniels & Shumow, 2003). Children have the ability to self-regulate new or learned behaviors. Self-regulation refers to the process whereby children learn to appropriately respond to their environment by modeling others (Bronson, 2000). High-quality teacher-child relationships are formed when there is a sense of closeness and trust; and have been shown to facilitate social learning. When the teacher shows interest in the child’s social and academic issues the child feels he can rely on the teacher when there is a personal or academic problem at school (Brinkworth, Eccles, & Wang, 2013). When students trust their teachers, they will show more engagement in academic content and display better classroom behavior (Covey, 2006). Thus, this study determined whether self-regulation through high-quality teacher child relationships will have an effect on kindergartner’s
academic achievement and classroom behavior.

**Deficiencies in the evidence.** Algozine, Horner, and Putman (2012) indicated that behavior problems are one of the causes of low academic achievement in kindergarten. Children entering kindergarten must respond to literacy instruction or they fall behind and a negative spiral of achievement and behavior follows them as they move to the next grade level (Algozine et al., 2012). Research suggests a number of causes of behavior problems such as environmental issues, family issues, mental disorders, and classroom management (Micek, 2013); however, there is little evidence suggesting that self-regulation through high-quality teacher-child relationships could affect a kindergartner’s academic achievement (King, McMahon, Racz, Whitkiewitz, & Wu, 2013). According to Reyes (2010), kindergartners with off-task behavior require hands-on activities that promote engaging, playful learning, which will assist with academic achievement. Therefore, this study determined whether self-regulation through high-quality teacher-child relationships minimized off-task behavior and increased academic achievement.

**Audience.** The audience that benefits from this research included teachers, parents, schools, guidance counselors, therapists, and psychologists. The United States Department of Education and students may also be affected by this research due to changes in the curriculum and professional development provided for teachers. The research assisted teachers with classroom management strategies that keep kindergarten students on task.

**Definition of Terms**

*Direct Instruction* refers to a rigorously developed, fast-paced, and highly scripted method for teaching that provides constant interaction between students and the teacher
High-quality teacher-student relationships are bidirectional, interpersonal exchanges taking place in proximal (e.g., the interpersonal interaction) and distal systems (e.g., the classroom context; Bronfenbrenner & Morris, 1998; Pianta, 1999).

Self-regulation is a child’s ability to control their behavior and involves social, emotional, and cognitive development (Florez, 2011).

Student engagement refers to a student’s willingness, need, desire and compulsion to participate in, and be successful in, the learning process. It is any sustained connection a learner has towards any aspect of learning, schools or education (Kuh, 2009).

Time-off-task behavior is any time a student is not engaged in classroom activities, exhibits rude behavior, or is not motivated (Clevenger, Dusing, Houck, & Huber, 2008).

Time-on-task refers to the segment of instructional time allocated to a content area during which kindergarten students are dynamically and effectively engaged in learning (Gettinger & Seibert, 2010).

Purpose of the Study

The purpose of this study determined how self-regulation through high-quality teacher-child relationships affected kindergartners’ reading performance and off-task behaviors at a Title I elementary school in South Florida. The researcher collected archival data on two kindergarten classrooms: one that used self-regulation through high-quality teacher-student relationships and one that did not. The Student Engagement Walkthrough Checklist (SEWC; see Appendix) was used as a direct observation measure to assess levels of on- and off-task behavior while the teacher provided opportunities for
the students to self-regulate their behaviors. The SEWC was used to measure the number of times a student was off-task during whole-group instruction, small-group instruction, and teacher/student interactions. The researcher collected archival data from the Letter Names and Sounds Assessment. This data was compared to another kindergarten class that did not use self-regulation through high-quality teacher-student relationships.
Chapter 2: Literature Review

Introduction

The purpose of this study determined how self-regulation through high-quality teacher-child relationships affects kindergartners’ reading performance and off-task behaviors. A review of the current literature, including research on early childhood behaviors, student/teacher relationships, environmental affects, implementation strategies, and classroom management, was presented in this chapter. The theoretical framework guiding this study was presented. Chapter 2 concluded with the research questions that guided the dissertation.

Theoretical Perspective

The problem of low student academic achievement caused by time off task is grounded in Bandura’s social learning theory. Social learning theory implies that behavior is learned from the environment through the process of observational learning. Children learn from observing the behaviors of people around them (Bandura, 1977). Children are surrounded by many influential models, such as parents, television characters, friends, and school teachers. These models provide examples of masculine and feminine behaviors to observe and imitate (Bandura, Ross, & Ross, 1961). The researcher applied the social learning theory while observing how self-regulation through high-quality teacher-student relationships was modeled and affected academic achievement.

Similarly, based in the attachment theory, high-quality teacher-student relationships are posited to provide security and support to students through the provision of closeness, warmth, and positivity (Pianta, 2001). This theory also suggests teacher-
student relationships provide a model for appropriate behaviors in addition to scaffolding for necessary social and behavioral skills (Baker, 2006).

Additionally, Lev Vygotsky’s theory of social learning indicated the role of social interaction in the development of cognition is strongly associated with the process of making meaning (Vygotsky, 1978). Children learn from imitating or modeling advanced peers and adults while social factors and culture shape children’s cognitive development.

Young students learn in collaboration with teachers and peers using their emotions to facilitate learning. There is an increasing focus on cognitive and social-emotional learning for kindergarteners’ well-being, mental health, and school success (Denham, 2006). Social-emotional competencies are recognized as the most important abilities supporting early school success and the growth of academic competence during elementary school (Romano, Babchishin, Pagani, & Kohen, 2010).

Therefore, Bandura’s social learning theory assisted with determining how self-regulation through high-quality teacher-student relationships affected kindergartners’ reading performance and off-task behaviors. Denham’s (2006) focus on collaborating teachers and peers indicates the important correlation between relationships and academic gains in reading. The following literature review presented research on early childhood behaviors, environmental affects, classroom management, teacher-student relationships, and implementation strategies that correlated with academic gains.

**Behavioral Problems**

Future academic and social development of students is critically affected by early behavior problems. Behavior problems in the first 3 years of elementary school lead to disruptive and anti-social behaviors, low academic achievement, and higher dropout rates
in high school. Childhood aggression is a common behavior problem in school and highly prognostic of adaptive outcomes through adolescence such as delinquency, substance abuse, under-achievement, and school dropout (Hughes & Cavell, 1999).

Students with behavior problems in kindergarten are often overlooked due to their young age; however, these behaviors may lead to how they develop feelings towards beginning school. Aggressive behavior towards others (e.g., hitting, fighting), oppositional and emotional behavior (e.g., disobeying rules), and attention problems (e.g., not paying attention or unfinished tasks) are all behavior problems in kindergarten (Eyberg & Pincus, 1999). According to O’Connor et al. (2011), early aggression is highly predictive of later aggression in elementary, middle, and high school and foresees anti-social behavior, aggression, and peer shunning.

There are several behaviors exhibited in the classroom that influence reading achievement in kindergarten. Alter, McQuillan, and Scott (2010) studied an impulsive, disruptive student who was interfering with instruction and annoying his peers. The authors concluded that the student needed a Functional Behavior Assessment or behavior plan to implement in class. This assessment determines the reason why this student engages in inappropriate behaviors by identifying predictable relations between the behavior and the environmental conditions in which it occurs. The results showed that the student was acting out for attention from both the teacher and his peers. When the teacher began ignoring the disruptive behavior and praising his positive behavior, the student was engaged in the discussion and/or lesson. The authors concluded that when trainers, teachers, and administration all focus on positive behaviors and speak the same language, there is a successful student outcome (Alter et al., 2010).
Another study by Bulotsky-Shearer and Fantuzzo (2011) examined the relationship between classroom behavior problems and literacy outcomes in a Head Start preschool and kindergarten program. Preschool and kindergarten behavior problems were assessed in structured learning situations over a 1-year period. Bulotsky-Shearer and Fantuzzo (2011) concluded all end of the year preschool students displayed early problem behaviors during structured learning contexts that continued into kindergarten.

Emotional Behavioral Disorder (EBD) has been linked to uncontrolled environmental factors unrelated to academic instruction. Daunic, Corbett, Smith, Poventud, Chalfant, Pitts, and Gleaton (2013) developed and conducted Social Emotional Learning Foundations (SELE), a curriculum for students at risk for emotional or behavioral problems that merges instruction in social-emotional learning with early literacy skills. This curriculum is designed for small-group instruction and the SELE curriculum provides teachers several opportunities to extend language and promote emotional and behavioral self-regulation while teaching early literacy skills including vocabulary development and comprehension. This initial study was used to explore intervention practicability, pilot implementation, and measurement protocols. Daunic et al. indicated SELE lessons improved teacher-reported executive function, internalizing behavior, and school-related competence. The above environmental factors lead to relationships formed at home throughout a child’s life (Seefeldt, 2010).

Additionally, social-emotional skills are an important part of school readiness and forming relationships with the teacher and peers. Many studies have found that healthy social-emotional development is a critical aspect of school readiness (Webster-Stratton, Reid, & Stoolmiller, 2008). According to studies conducted across the country with
kindergarten teachers, children need to be able to follow directions, not be disruptive, express their needs and ideas, and take turns and share (Lin, Lawrence & Gorrell, 2003) in order to successfully navigate the kindergarten routine. Durlak and Weissberg (2011) examined the relationship between 267 kindergarten children’s work-related classroom behavior and their entry-level achievement. Students’ work-related skills were measured by teacher reports on the Cooper-Farran Behavioral Rating Scale (CFBRS) administered in the fall of kindergarten. Students were administered a battery of achievement tests at the beginning of kindergarten, consisting of the Peabody Picture Vocabulary Test-Revised (PPVT-R) and the Peabody Individual Achievement Test-Revised (PIATR), as well as the Stanford Binet Intelligence Scale. The results revealed work-related skills positively related to school readiness and students’ ability to succeed in early academic subjects, when other demographics, such as cognitive ability and mother’s education, were controlled (Durlak & Weissberg, 2011).

Tewhey (2006) conducted a survey of a nationally demonstrative group of kindergarten teachers who indicated their number one concern for incoming students was a failure to follow directions, followed by behavior concerns leading to academic difficulties. In addition, McIntyre, Eckert, Fiese, DiGennaro, and Wildenger (2007) stressed the need for early intervention with children who exhibit significant social-emotional difficulties. According to a survey conducted by the National Center for Early Development and Learning with kindergarten teachers, 46% of the teachers surveyed reported more than half of their students enter school lacking self-regulatory skills and emotional and social competence to function successfully and learn in kindergarten (West, Denton, & Reaney, 2001). Early childhood education programs are undergoing
many changes and the concern is that the structure of these settings may not provide an adequate foundation for the future of a child’s academic growth (Logue, 2007).

Early preventative intervention to teach kindergarten students’ social skills rather than allowing disruptive behavior to develop has long-term benefits. Vitaro, Barker, Brendgen, and Tremblay (2012) found early preventive intervention for disruptive boys lowered the incidence of those boys engaging in criminal activity in early adulthood. When students were taught pro-social behaviors, parents were provided effective child rearing training, and teachers were taught behavior management skills, there was a significant reduction in disruptive behavior and in a student’s preference for associating with deviant peers, and there was an increase student engagement (Vitaro et al., 2012).

Furthermore, research conducted over the last two decades indicates the key attributes of social-emotional behavior in the classroom are acquiescent and easily influenced by intervention programs (Durlak & Weissberg, 2011). These studies have found social-emotional competencies such as prosocial behaviors, aggression control, emotional understanding, social-problem solving skills, and learning engagement can be developed through systematic instructional approaches in the classroom (Collaborative for Academic, Social, and Emotional Learning [CASEL], 2005) as is seen in many social and emotional learning (SEL) programs. For example, a study conducted with 67 kindergarten students examined the effects of the “Strong Start” curriculum on social and emotional competence using a time series design (Kramer, Caldarella, Christensen, & Shatzer, 2010). Teachers and parents completed behavior-rating scales for each student on four separate occasions, twice before the intervention (pre) with a 6-week interval between them, and twice following the intervention (post) also with a 6-week interval
between them. The curriculum was made up of 10 lessons covering topics such as recognizing one’s own and others’ feelings, handling anger and anxiety, being a friend, and solving problems. Topics were taught through direct instruction, example scenarios, and role-play activities. A stuffed animal and puppets were used as mascots to enhance scenarios and role-play. The program used popular children’s literature to explore the topics and guide discussions. The results revealed gains in students’ prosocial behaviors and decreases in internalizing behaviors as rated by both teachers and parents (Kramer et al., 2010).

When students with behavior issues are not handled properly, research has shown they can negatively influence the learning environment by persuading others to join them, which cause teacher effectiveness to be questioned, and leads to an increase in stress for the teacher (Etheridge, 2010). Walker (2009) indicated there is a relationship between a teacher’s classroom management style and demographic variables. Gender, number of years of teaching, and highest education degree can affect the teacher’s behavior and management skills. According to Walker, teachers can be taught effective classroom management strategies; however, environmental factors may have an effect on classroom behavior.

**Environmental Factors**

The structure of the American family has changed and will continue to change. There is an increase in the divorce rate, the number of two-employed-parent families, and teenage pregnancies, and a decrease in the in the influence of extended families, which has substantially changed the kind of preschool experiences children have (Seefeldt, 2010). Meanwhile, research has indicated that variables including family income, family
structure, parents’ educational level, number of hours children view television, availability of learning tools, and home literacy activities may be related to school readiness and academic success (Burns, Griffin, & Snow, 2006). The National Association for Early Childhood Teacher Educators (2001) reported many children view too much violence on television or in video games, toys, stories, and other media. In schools throughout the nation, children are acting out the violence they observe by playing war or superheroes aggressively. Teachers and parents discussed the problems of children’s exposure to media violence and worked to change the media.

A child learns social patterns and skills whether in a blended or extended family, a communal arrangement, or a single-parent family. A relationship with love and security is formed when a child is attached to the person who protects and cares for them. Children, who have had a nurturing figure and see themselves as separate from their caregiver, are ready for a group situation. If a strong attachment to another person has not developed, children may have a difficult time adjusting to the complexity of the school social system (Seefeldt, 2010). When children are raised in autonomous families, where rules along with reasons are given, they are more likely to be socially active and open-minded. This parenting style depicts children likely to cooperate, share, and initiate social activities. Authoritarian parenting requires obedience, conforming, and dependent offspring who are never really comfortable exploring the world and fail to develop the ability to relate effectively with others throughout their life (Seefeldt et al., 2010).

Disruptive behavior may be caused by environmental factors outside of the classroom such as family situations, peer interaction, and living situations (Bayden, Bosmeyer, Lochman, Minney, Mushtaq, & Stromeyer, 2011). According to Bayden et al.
(2010), conduct problems and aggression in class may be the result of social cognitive functioning. The authors examined evidence-based cognitive behavioral programs appropriate for children in preschool through elementary school. Children with high levels of aggressive behavior and conduct problems interfered with the learning environment of their classmates and with their own academic achievement. According to Bayden et al. (2011), children with aggressive behavior are at risk of negative outcomes such as school dropout, violent behavior, and substance abuse.

Aggression can result from many environmental issues. Hoekstra and Scott (2009) conducted a mixed methods study on elementary students in Florida and found a link between students’ environment and academic achievement in the classroom. The authors found students exposed to domestic violence had low academic achievement and poor performance on standardized tests. According to Hoekstra and Scott (2009), children from troubled families are more likely to show aggressive behavior and perform poorly in class.

Additionally, the Ecological theory, by Bronfenbrenner and Morris, (1998) posits children develop within and across multiple interacting systems. These systems differ in their level of contact with children and range from direct, proximal influences including the home or school environment to indirect, distal influences such as the geographic setting in which children live. Positive academic and social behaviors are perceived as the entryway to academic performance (i.e., enabling learning to occur when present and preventing learning when disrupted). Parenting behaviors and the geographic setting influences children’s development (Kwon, Kim, & Sheridan, 2012). Sheridan, Koziol, Clarke, Rispoli, and Coutts (2014) conducted a study on how a large national geographic
setting (i.e., rural versus city, suburban, and town) influences the development of children’s social-behavioral skills in kindergarten. Thus, the study sought to determine whether parenting practices mediate the relationship between geographic setting and children’s social-behavioral skills in kindergarten. The findings of Sheridan et al.’s study indicated rural children might face particular risk for behavioral issues and highlighted the need for increased behavioral supports in rural communities. Furthermore, the results suggested interventions designed to promote parents' support of children's emotions might have particular usefulness for rural families (Sheridan et al., 2014).

In contrast, the discrepancy between children’s school readiness among ethnic and social class groups remain a continuing problem. Peters and Ridgeway (2008) indicated while reforms have focused on tackling this dilemma through programs such as Head Start, research is continually suggesting these programs will not produce the long lasting effects educational leaders desire. More modifications are needed to assist children that are most at risk for not being ready for school. As stated by Peters and Ridgeway (2008):

Developing high-quality early learning and family support systems will go a long way toward finally reaching the national goals of assuring that all children will enter primary school ready to learn and that no child will in fact be left behind. (p. 281)

DeRousie and Durham (2008) concluded the family is an extremely important component in the development of a child’s school readiness and differences do exist in parents’ abilities. However, whether those differences are related to limited education, parenting skills, or social and economic class, all parents can provide children with essential
experiences to aid in their school readiness. DeRousie and Durham further imply through “culturally sensitive, evidence-based, multi-level interventions,” the school readiness gap can be eliminated between groups of children (p. 314). In order to develop high-quality programs and interventions dedicated to the child and their families, it is extremely important that research begins to look more explicitly at families of differing ethnicity and socioeconomic status so that support can then be personalized according to each group’s common needs. A vital component in understanding different groups of families in regards to school readiness, is acquiring knowledge about parents’ attitudes and practices related to the preparation of their children entering school (DeRousie et al. 2008).

McAllister, Wilson, Green, and Baldwin’s (2005) study focused primarily on examining “…the perspectives and experiences of low-income, predominantly African American families regarding children’s school readiness” (p. 617). The research was conducted using various qualitative methods with a sample of 150 families in the greater Pittsburgh metropolitan area. Of these 150 families, 91% reported having incomes that were less than the federal poverty line. Furthermore, 104 of the participants were African American, 41 Caucasian, and 5 were identified as biracial. The researchers conducted 150 qualitative interviews with the primary caregiver and completed case studies from 7 of the 150 families. In conclusion, these parents largely valued social and emotional health for both the parent and child when referring to school readiness. The authors were able to emphasize the importance of psychological and environmental influences on school readiness and how these issues are a public health concern. The parent’s perception of their child’s school readiness is misunderstood. They have difficulty
understanding how to relate to other ethnic and socioeconomic groups as well as other environmental factors (McAllister’s et al., 2005). The above influences may lead to behavior concerns in the classroom, which provide opportunities for teachers to maintain classroom management.

Additionally, a study comparing beliefs of preschool teachers and parents about the role of preschool in developing kindergarten readiness, the researchers found both parents and teachers believed that the primary role of preschool was to prepare students for kindergarten (Hatcher, Nuner, & Paulsel, 2012). The study indicated parents believed preschool children needed extensive pre-reading skills in order to succeed in kindergarten. Both parents and teachers believed that social readiness was a critical skill necessary for success in a kindergarten setting. Social readiness included such dimensions as cooperating with the teacher, problem solving, and staying on task (Hatcher et al., 2012).

**Classroom Management**

Students with behavioral issues repeatedly display disruptive behaviors in classrooms; however, with appropriate modeling and consistent expectations the behavior can be ameliorated. Blood, Crouch, Johnson, Ridenour, and Simmons (2011) gave a 10-year-old boy with a behavioral disorder an iPod touch to self-monitor his behavior. During the study he would watch a video that would remind him of the expectations for that time. The study showed that he was on-task nearly 100% of the time when using this device (Blood et al., 2011).

Another effective kindergarten classroom practice is Classroom Harmony. In order for Classroom Harmony to be effective, the teacher must establish rules and
procedures in the classroom, ensure students are aware of the expectations and consequences, and be consistent (DeLorenzo & Nelson, 2011). Kindergarteners are responsive to consistency and expectations. This research showed that students understand that for every opportunity or freedom they have, there is a related responsibility. For example, a student has the opportunity to work with her choice of materials. She also has the responsibility to use those materials respectfully. If that child’s behavior is disrespectful, then she loses her opportunity to use the materials. This formula is effective if the consequence is enforced with kind and firm follow-through (DeLorenzo & Nelson, 2011). Classroom management is the key to a successful learning environment that promotes student achievement and academic involvement (Ispa & Yen, 2000). Additionally, parental participation and consistency in the home provides the student with motivation to be successful in the classroom. The teacher must develop a relationship with each student in order to assist effective learning (Ispa & Yen, 2000).

Moreover, Lee, Tice, Collins, Brown, Smith, and Fox (2012) explored how student teaching experiences influenced teacher candidates' feelings of preparedness, or their skills, knowledge, and dispositions using the construct of teacher efficacy. The authors found that teacher candidates with high self-efficacy, or one’s belief in his or her ability to perform a certain task, typically managed student behaviors more effectively. These candidates felt well prepared to enter the classroom and had classroom management plans in place. Those feeling a lack of preparation tended to exhibit low self-efficacy (Lee et al., 2012).

Finally, Garner, Moses, and Waajid (2013) focused on which prospective teachers’ emotion regulation styles and perceptions of student behavior were predictive
of their attitudes about classroom management. When teachers believe they can affect positive change in the classroom, they are more likely to respond to challenging classroom behavior in ways that facilitate student learning and to persist when positive change is not immediately evident. The teacher’s attitude reflects the classroom climate and the relationship with students (Garner et al., 2013).

**Teacher/Student Relationship**

According to Galinsky (2010), regulating a person’s thinking, emotions, and behavior is vital for success in school, work, and life. A child who stops working on a lesson and begins cleaning up when asked or spontaneously offers to share a toy with a classmate, has regulated thoughts, emotions, and behavior. The teacher can choose the moments through observation when a student is susceptible to self-regulation (Bronson 2000).

Similarly, Bodrova and Leong (2008) posit self-regulation is an internal mechanism enabling children and adults to engage in conscious, intentional, and thoughtful behaviors. There are two sides to self-regulation: first, the ability to control one’s impulses if needed. For example, a child can resist an immediate impulse to blurt out the answer when the teacher poses a question to another child. Second, self-regulation involves the capacity to do something such as waiting for their turn or raising their hand (Bodrova et al., 2008). Children are self-regulated when they can delay gratification and suppress their immediate impulses enough to anticipate possible consequences of their actions or consider a more appropriate response to the action. Although children know they are supposed to use their words instead of fighting, only self-regulated children are actually able to use them. Teachers are able to teach self-regulation in the classroom
using specific strategies (Blair & Razza, 2007). Self-regulation is taught to all children by creating opportunities for practicing the rules of a certain behavior and to apply those rules in new situations. Visual and tangible reminders such as play and games are important parts of the curriculum (Bodrova et al., 2008).

According to Bierman, Nix, Grrenberg, Blair, and Domitrovich (2008), young children self-regulate their emotions, attention, and behavior. Together they have been correlated to classroom adjustment and academic readiness. Specifically, children who have difficulties dealing with negative emotions may not have the personal resources to focus on learning, whereas those who can maintain a positive emotional tone might remain more positively engaged with classroom tasks (Graziano, Reavis, Keane, & Calkins, 2007). More cognitive and behavioral forms of regulation are also related to young children’s academic success. Thus, self-regulation enhances children’s early classroom adjustment and academic success both predictably and simultaneously.

Effective teachers use self-regulation strategies to associate the developmental space between what children already know and can do and more complex skills and knowledge. Florez (2011) observed a kindergarten teacher and two children while exploring the science center in the classroom. As the students were touching the clay and water in the center, the teacher walked over and began to ask the students what they were doing and started a discussion of how to make the water move while demonstrating how to do it. The teacher encouraged the students to assist each other by communicating verbally and physically. The teacher demonstrated and modeled the appropriate behavior to show the children how to accomplish a task and use the self-regulation needed to complete it (Florez, 2011).
Teacher-student relationships are formed when self-regulation skills are developed progressively. It is important that teachers hold developmentally appropriate expectations for children’s classroom behavior (Bronson, 2000). According to Vygotsky (1934), the zone of proximal development (ZPD) is the range of developmentally appropriate expectations. The ZPD represents skills children are ready to learn; therefore, expecting children to demonstrate skills outside the ZPD is ineffective and often detrimental.


Additionally, the relationship between a teacher and student depends on many factors, including the child’s early academic skills and behaviors. The level of support or conflict leads students to more positive behavioral outcomes over time. Teacher-student relationships may be particularly important for low-income children because of significant behavioral and academic risk than children from higher-income areas (Hughes & Kwok, 2007).

In the early years, teachers play an important role in the trajectory of students and have the unique opportunity to provide support to decrease behavior problems (McCormick, O’Connor, Cappella, & McClowry, 2013). A national study of kindergarten and first graders found positive teacher-student relationships significantly changed trajectories for students with early internalizing or externalizing behavior (O’Connor et
Similarly, Silver, Measelle, Armstrong and Essex (2005) found behaviorally at-risk kindergarten students who had low levels of conflict with teachers were at a lower risk for disciplinary action and suspension through eighth grade when compared to their at-risk peers with high conflict with teachers.

In contrast, teacher-student relationships are conflicting and negatively associated with the outcome of student behaviors. Teacher-student conflict is characterized by hostile and negative interactions lacking warmth (Pianta, 2001). A study examining the direction of the relationship between teacher-student conflict and aggression in kindergarten found student aggressive behavior at the beginning of kindergarten led to teacher-student conflict midyear. This led to an increase in aggression at the end of the kindergarten school year (Doumen, Verschueren, Buyse, Germeij, Luyckx & Soenens, 2008). Students who have conflictual relationships with teachers have less social and academic support. Furthermore, teachers spend particularly less one-on-one time with students with whom they experience conflict (Baker, Grant & Morlock, 2008). Students miss out on important behavioral and academic scaffolding because of conflict and less time spent with the teacher (O’Connor et al., 2011). The time spent is often characterized by hostility, anger, and punishment as opposed to warmth and support. Students may not have an appropriate model for exploring positive relationships or engaging pro-social behaviors when lacking warmth and support from the teacher (Mantzicopoulos, 2005). The cycle of student anti-social behavior is strengthened when continued criticism and punishment comes from the teacher, thus leading students with high teacher conflict to develop further problematic behaviors in the classroom (Birch & Ladd, 1998).

According to Chang (2003), children with more supportive and less conflictual
relationships with teachers are significantly more accepted by peers. In the early years of school, peer acceptance has been highly correlated with peer-observed teacher-student relationship quality and suggests peer acceptance may be influenced by teachers’ interactions with the students rather than with the actual behaviors of the child (Hughes & Kwok, 2006).

Murray and Zvoch (2010) conducted an investigation on teacher-student relationships among African Americans from low-income backgrounds. Students were recruited from three high poverty public schools in Chicago over a 3-week period. The purpose was to examine teacher-student relationships with African Americans with and without behavioral problems. A Child Behavior Checklist was utilized by the teacher to assess the perception of student behavior. It contained two externalizing subscales: Delinquent and Aggressive Behavior. The results showed low-income African American students with behavior problems had lower self-reported trust relationships with teachers that affected their academic achievement (Murray & Zvoch, 2010).

Buyse, Doumen, Koomen, Verschueren, and Wouters (2012) examined teacher-student closeness, conflict, and dependency at the beginning, middle, and end of the school year for 148 kindergarteners. The authors examined teacher and observer ratings, examined similar patterns of relations with behavioral engagement obtained across informants, and determined which informant matters the most in the prediction of the engagement. Buyse et al. concluded higher levels of teacher-child closeness predicted higher levels of different types of behavioral engagement of the child in the classroom, whereas higher levels of conflict predicted lower levels of behavioral engagement and in particular less cooperative classroom participation and task involvement. Positive
interaction demonstrated students were more engaged in learning and classroom activities. Many kindergarten classrooms lack positive interaction due to off-task behavior and teachers need assistance with implementing different strategies and programs (Baden et al., 2011).

The transition from preschool to kindergarten involves preparing children to learn and establish positive relationships among teachers, parents, and children from the beginning of the year. The children’s attitudes, feelings, and traits are just as important as their academic readiness; therefore, the transition is a crucial point in a child’s school age life and depends on the quality of early teacher-child relationships. These relationships shape a child’s efficacy and expectations of future interactions with teachers, as well as their feelings about school in general (Gower, Lingras, Mathieson, & Crick, 2014). A study conducted by Gower et al. (2014) examined how engagement in preschool physical and relational aggression predicts the adjustment during the kindergarten school year. Preschool teachers reported aggressive behavior and kindergarten teachers reported on student-teacher relationship quality, child internalizing problems, and peer acceptance using an observation checklist. The results suggested physical aggression in preschool reduced peer acceptance and increased conflict with the kindergarten teacher. Positive transitions to kindergarten were related to high levels of relational aggression when not combined with physical aggression. The data indicated the need for interventions among physically aggressive preschoolers; educators must work to encourage social influence in pro-social ways with these preschoolers (Gower et al., 2014).

Successful students need to feel they are accepted, supported, and cared about by their teachers in order for them to make important decisions and complete the work they
are assigned. A clear sense of structure, consistency, and high expectations is necessary for elementary students to be more engaged academically with positive attitudes and values. Regardless of socioeconomic status, students engaged in school are more likely to earn higher grades and test scores (Klem & Conell, 2004). A study guided by the Self-System Process Model, developed by Klem and Conell (2004), indicated lack of teacher support with elementary students was affected the most. Students who experienced high levels of teacher support and engagement, arrived to class on time; prepared for class; and demonstrated classroom rules, procedures, and expectations most of the time (Klem & Conell, 2004).

Similarly, the attachment theory posits children use relationships with significant others to form views about themselves and the nature of the social world (Bowlby, 1982). According to a study conducted by Baker (2006), these representations in a child’s life are carried forward into school where they affect social behavior and their readiness to learn. The relationships children form with their kindergarten teachers predict their school adjustment prospectively through middle school. This includes grades, standardized test scores, behavior adaptation, disciplinary actions, and work habits (Hamre & Piantra, 2001). Baker examined teacher-child relationship quality across the range of elementary grades (i.e., kindergarten through fifth grade), as well as the association with social behaviors and academic achievement. The results indicated positive teacher-child relationships promote children’s school success and social behavior with peers.

Howes, Phillipsen, and Feinberg (2000) indicated positive relationships between Kindergarten teachers and their students facilitate the transition and attitude towards
The teacher is responsible for introducing children to academic settings, making children feel safe, and teaching them how to interact with other children in positive ways. However, in a study conducted by Murray, Murray, and Waas (2008), characteristics such as sex and race appeared to be related to teacher-student relationships. The participants within this study were primarily students of color in a low-income urban environment and inquiries were conducted to examine the contributions of parent-child and teacher-student relationships to school adjustment and behavior. The findings indicted teacher-student relationship quality accounted for a significant portion of variance in student-reported engagement, grades in language arts, grades in reading, and on student achievement assessments.

Buyse, Verschueren, Doumen, Van Damme, and Maes (2008) captured how teachers and kindergarten students interact in authentic classroom settings by analyzing videotaped interactive behaviors. The Interpersonal theory was used to observe and predict dyadic interactions between kindergarten students and their teachers. Buyse et al. investigated whether the teacher’s perceptions about the quality of the relationship with a specific child influenced their actual interactive behaviors towards that child. The authors concluded behavior-challenging children are at risk of developing conflicting teacher-child relationships and teachers must be aware that students have different needs. This increases the chances of academic failure and is an indicator that a teacher’s responsiveness to student’s behavioral and socio-emotional needs could make a difference (Buyse et al., 2008).

**School-Wide Behavior Implementation Programs**

The universal level of the three-tiered model, referred to as School-wide Positive
Behavioral Interventions and Supports (SWPBIS), is being widely disseminated by the U.S. Department of Education (Knoff, 2000) and several state departments of education. It is estimated that SWPBIS is currently implemented in more than 9,000 schools across the United States (Horner, 2009).

Schools frequently implement various strategies to address classroom and/or in the school behavior problems. A SWPBIS program was implemented in 37 Maryland public elementary schools from five districts over 5 years. The program promotes positive school climate that reduces discipline problems. The SWPBIS program incorporates teacher-student conferencing as a positive reinforcement for good behavior. Although it was effective, additional research on interventions and positive reinforcement was suggested (Bradshaw, Mitchell, & Leaf, 2010).

Similarly, Smith and Stormont (2011) used a mentoring program in elementary schools that assists students with family problems, peers, and ineffective discipline from parents. Building an effective mentoring program begins with students who display off-task behavior, sudden outbursts, and distractions during instructional time. School-based mentoring is an intervention for students at risk for academic and social failure. These programs are effective in primary students in lower income schools; however, finding appropriate mentors is difficult (Smith & Stormont, 2011).

Myers, Simonsen, and Sugai (2011) performed a study that focused on increasing teachers’ use of praise, similar to SWPBIS, as a method to encourage and reinforce prosocial and positive behavior. The researchers used performance feedback to address teachers’ use of praise in the classroom. Four classrooms were observed to obtain baseline levels of the teachers’ interaction with their classes of elementary school
students. From the baseline data, individualized interventions were designed for each teacher, focusing on increasingly intensive levels of support and instruction through increasing the use of positive praise in the classroom. Results of this study generated a significant decrease in disruptive behavior in three of the four classrooms, and a moderate decrease in disruptive behavior in the fourth classroom (Myers et al., 2011). The teachers in the study reported the interventions they implemented in their classrooms were easy to use and the skills they were taught were valuable. The researchers concluded that using positive praise with performance feedback while teaching specific skills to the subjects were effective in decreasing problem behavior and increasing prosocial and positive behavior within these classrooms (Myers et al., 2011).

In a study conducted by Reinke, Herman, and Stormont (2013), the teachers’ satisfaction level and perceptions of SWPBIS in a school district were examined. A SWPBIS satisfaction survey was conducted, followed by interviews to further examine teachers’ perceptions of this program. The theoretical perspective known as critical theory was used to understand how culture and institutions could shape educational practices such as SWPBIS. Reinke et al.’s research took place in a school system located in a rural southeast Georgia county. A primary school and an elementary school were included in this research. Results from the SWPBIS Satisfaction Survey indicated teachers in this school district were relatively satisfied with SWPBIS. Additionally, the study showed that teachers must support the system’s initiatives. They appeared satisfied with the system’s short and long term incentive plans and how students responded to these incentives (Reinke et al., 2013).
Summary

Time-on-task is influenced by many factors including behavior problems, teacher-student relationships, and environmental factors beyond the child’s control. Kindergarten is a time for learning how to interact with peers and teachers, making it necessary for the classroom environment to be adaptable to their needs. The proposed study determined whether self-regulation through high-quality teacher-student relationships affected students’ academic achievement and off-task behavior.

Research Questions

The following questions guided this study.

1. How did the reading scores of kindergarten students with a high-quality teacher-student relationship compare to the reading scores of kindergarten students who did not have a high-quality teacher-student relationship?

2. How did time-on-task for kindergarten students with high-quality teacher-student relationship compare to kindergarten students who did not have a high-quality teacher-student relationship?

3. What was the relationship between time-on-task and kindergarten student performance in reading for students with a high-quality teacher-student relationship?

4. What was the relationship between time-on-task and kindergarten student performance in reading for students who did not have a high-quality teacher-student relationship?
Chapter 3: Methodology

Introduction

The purpose of this ex post facto study was to determine how self-regulation through high-quality teacher-student relationships affected kindergartners’ reading performance and off-task behaviors at a Title I elementary school in South Florida. Additionally, the relationship between time-on-task and kindergarten students’ reading scores was examined, both for students that have a high-quality teacher-child relationship and those that do not. This chapter is an overview of the study participants, instruments, design, data collection, data analysis, and limitations.

Participants

The setting for this study took place in a large school district situated in an urban lower income community near a large city in South Florida. This district was selected because the researcher was able to gain entry into the site through professional contacts with district administrators and prior collaborations with school personnel. The district serves approximately 258,836 students in 137 elementary schools, 40 middle schools, and 33 high schools during the study. This is a sample of convenience because of the availability of participants and ease of access (Creswell, 2012). The convenience sample consisted of students who are enrolled in kindergarten at this urban elementary school.

The participants in this study consisted of students in two kindergarten classrooms. Kindergarten class A had 10 boys and 8 girls ranging from 5 to 6 years old. Kindergarten class B had 11 boys and 7 girls ranging from 5 to 6 years old. The demographics are as follows: Class A consisted of 10 African American boys, 3 Hispanic girls, and 5 African American girls. Class B consisted of 10 African
American boys, 1 Hispanic girl, and 6 African American girls. All 38 students are fluent English speakers and have corrected to normal vision. The percentage of students in Class A and B on free and reduced lunch is 100%. This study utilized archival data consisting of students’ readings scores and time-on-task behaviors in two classrooms: Class A implemented self-regulation through high-quality teacher-student relationships and Class B used a direct instruction approach.

The researcher serves as an instructional support coach with the Department of Coaching and Induction for the district. A caseload of approximately 10 teachers is specified by the principal for the researcher to support daily. The teachers from Class A and Class B were a part of the researcher’s caseload. The teacher in Class A implemented self-regulation through high-quality teacher-child relationships according to the observation tools used by the researcher on a daily basis. The teacher in Class B used direct instruction according to the observation tools used by the researcher on a daily basis. The Student Engagement Walkthrough Checklist (SEWC; Appendix) was used in Class A and Class B.

**Instruments**

Archival data from the SEWC was used to determine the number of times the students were on-task. In addition, archival data from the Letter Names and Sounds Assessment was used to measure reading performance in Class A and Class B.

**Student Engagement Walkthrough Checklist.** Direct observation was used to assess levels of on-and-off task behavior while the teachers provided opportunities for the students to self-regulate their behaviors. The SEWC (see Appendix) was used to determine the number of times a student was engaged during a 15-minute time period for
whole group instruction and a 15-minute time period for small group instruction. The SEWC examined the degree to which students were exhibiting engaging behaviors or were on-task. The SEWC was created by the researcher using information from The International Center for Leadership in Education (2016) Handbook to assist her with her role as an Instructional Support Coach. This checklist is based on the behaviors of students during an interactive lesson taught by the teacher. Tally marks illustrate the number of students displaying the different levels of engagement (i.e., very high, high, medium, and low). The engaging activities observed were positive body language, consistent focus, verbal participation, student confidence, and fun and excitement. The researcher used the SEWC to analyze student behavior when observing classrooms as part of her normal job description. Archival data from the SEWC was collected by the researcher. The researcher is an Instructional Support Coach and observes these teachers twice a week as case studies as part of her normal job description. In her role as Instructional Support Coach, the researcher observed Class A and Class B one day prior to the Letter Names and Sounds Assessment using the SEWC in August 2016 and again in October 2016. The observations took place during a 15-minute whole group lesson and a 15-minute small group lesson on the same day.

**Letter Names and Sounds Assessment.** Archival data of the students’ scores on the Letter Names and Sounds Assessment from August 2016 and October 2016 was collected from the district’s database. Each student from Class A and Class B were assessed on 52 letter names and 26 letter sounds using The Letter Names and Sounds assessment to test students’ ability to name the letters of the English alphabet, both in their lower case and capitalized forms. This measurement is administered individually by
showing students a series of letters organized in a chart on one side of a single sheet of paper given a set amount of time (ranging from 30 to 60 seconds) to name as many of them as they can. The assessor follows along as the student names the letters and sounds, indicating on the test protocol each letter the student reads incorrectly and prompting the student to go on if he/she hesitates at a letter for more than three seconds. Student self-corrections are counted as correct responses. At the end of the allotted time, the assessor marks the last letter named and calculates the total number of letters read correctly to arrive at the student’s score, letters and sounds named correctly in 1 minute.

This instrument is a valid measure of basic concept development and a school readiness assessment provided to kindergarten teachers from the district. This assessment is required by the district for each student and is used as promotion criteria to move on to first grade. The teacher records the data on the teacher form by placing a check next to recognized uppercase letter, lowercase letter, and sound (Owocki, 2010). Letter properties appear to affect the ease with which their names and sounds are learned. These include whether the letter is a consonant or vowel, the letter’s position within the alphabet, its manner of articulation, whether the letter is associated with more than a single sound (e.g., B and /b/ versus C and /k/, /s/), the age the sound is typically produced, the confusability of the letter’s shape or pronunciation with other letters, and frequency in print materials (Levin, Shatil-Carmon, & Asif-Rave, 2006).

**Procedures**

**Design.** This study employed an ex post facto design collecting archival data from students in two kindergarten classrooms. An ex post facto design was used to investigate how the independent variable, high-quality teacher-student relationships, affects the
dependent variables, kindergarten students’ reading scores and time-on-task (Creswell, 2012). Using archival data from The SEWC and the Letter Names Sounds Assessment, the students’ reading performance and off-task behavior for those with high-quality teacher-student relationships (i.e., Class A) was compared to those that had no visible high-quality teacher-student relationships (i.e., Class B).

**Data collection procedures.** Upon IRB approval, the researcher began collecting the existing archival data. The teachers from the two classes recorded the Letter Names and Sounds Assessment data into a password-protected Excel file along with data from the SEWC (the researcher gave all SEWC data to the teachers after the observations took place). The teachers removed all identifying information and then emailed the password-protected Excel spreadsheet to the researcher via the district’s secure email server.

**Data analysis procedures.** Research Question 1: How do the reading scores of kindergarten students with a high-quality teacher-student relationship compare to the reading scores of kindergarten students who do not have a high-quality teacher-student relationship? The reading scores of each student in Class A, with a high-quality teacher-student relationship, and the reading scores of each student in Class B, without a high-quality teacher-student relationship model, were assessed using the Letter Names and Letter Sounds Assessment from August (pretest) and October (posttest). In order to answer Research Question 1, the change in reading scores (i.e., posttest minus pretest) of Class A and the change in reading scores (i.e., posttest minus pretest) of Class B were compared using an independent samples $t$ test.

Research Question 2: How does time-on-task for kindergarten students with high-quality teacher-student relationship compare to kindergarten students who do not have a
high-quality teacher-student relationship? Time-on-task of each student in Class A, with a high-quality teacher-student relationship, and time-on-task of each student in Class B, without a high-quality teacher-student relationship model, was assessed using the SEWC from August (pretest) and October (posttest). In order to answer Research Question 2, the change in students’ time-on-task (i.e., posttest minus pretest) in Class A and the change in students’ time-on-task (i.e., posttest minus pretest) in Class B was compared using an independent samples t test.

Research Question 3: What is the relationship between time-on-task and kindergarten student performance in reading for students with a high-quality teacher-student relationship? In order to answer Research Question 3, students’ reading scores and students’ time-on-task from Class A were correlated using a Pearson Product Moment Correlation.

Research Question 4: What is the relationship between time-on-task and kindergarten student performance in reading for students who do not have a high-quality teacher-student relationship? In order to answer Research Question 4, students’ reading scores and students’ time-on-task from Class B were correlated using a Pearson Product Moment Correlation.
Chapter 4: Results

Introduction

The purpose of this study was to determine how self-regulation through high-quality teacher-child relationships affects kindergartners’ reading performance and off-task behaviors at a Title I elementary school in South Florida. The researcher collected archival data on two kindergarten classrooms: one that used self-regulation through high-quality teacher relationships and one that did not. The Student Engagement Walkthrough Checklist (SEWC; see Appendix) was used as a direct observation measure to assess levels of on- and off-task behavior while the teacher provided opportunities for the students to self-regulate their behaviors. The SEWC was used to measure the number of times a student was off-task during whole-group instruction and teacher/student interactions. The researcher collected archival data from the Letter Names and Sounds Assessment. This data will be compared to another kindergarten class that did not use self-regulation through high-quality teacher-child relationships.

Demographic Characteristics

The participants in this study consisted of students in two kindergarten classrooms in a Title I school in South Florida. Kindergarten class A has 10 boys and 8 girls ranging from 5 to 6 years old. Kindergarten class B has 11 boys and 7 girls ranging from 5 to 6 years old. The demographics were as follows: Class A consisted of 10 African American boys, 3 Hispanic girls, and 5 African American girls. Class B consisted of 10 African American boys, 1 Hispanic girl, and 6 African American girls. All 38 students were fluent English speakers and have corrected to normal vision. The percentage of students in Class A and B on free and reduced lunch is 100%. This study
utilized archival data consisting of students’ readings scores and time-on-task behaviors in two classrooms: Class A implemented self-regulation through high-quality teacher-student relationships and Class B used a direct instruction approach.

Data Analysis

Research Question 1. How do the reading scores of kindergarten students with a high-quality teacher-student relationship compare to the reading scores of kindergarten students who do not have a high-quality teacher-student relationship? The null hypothesis stated that the reading scores of kindergarten students with a high-quality teacher-student relationship would be similar to the reading scores of kindergarten students who do not have a high-quality teacher-student relationship. The alternate hypothesis stated the reading scores of kindergarten students with a high-quality teacher-student relationship would be higher than the reading scores of kindergarten students who do not have a high-quality teacher-student relationship. The reading scores of each student in Class A, with a high-quality teacher-student relationship, and the reading scores of each student in Class B, without a high-quality teacher-student relationship model, was assessed using the Letter Names and Letter Sounds Assessment from August (pretest) and October (posttest).

In order to answer Research Question 1, two independent samples t tests were conducted. The change in Letter Names Assessment scores (i.e., posttest minus pretest) of Class A and the change in Letter Names Assessment scores (i.e., posttest minus pretest) of Class B were compared using an independent samples t test. Results of the independent samples t test for the Letter Names Assessment scores were not significant, $t(34) = .42, p = .34$. Students in Class A ($M = 13.44, SD = 12.42$) had a slightly higher
change in Letter Names Assessment scores than students in Class B ($M = 11.72, SD = 12.26$), but not significantly (see Tables 1 and 2).

Table 1

*Group Statistics of Class A and Class B in Letter Names (LN) and Letter Sounds (LS)*

*Pretest and Posttest*

<table>
<thead>
<tr>
<th>Class</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>SEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>A (LN)</td>
<td>18</td>
<td>13.4</td>
<td>12.4</td>
<td>2.9</td>
</tr>
<tr>
<td>B (LN)</td>
<td>18</td>
<td>11.7</td>
<td>12.3</td>
<td>2.9</td>
</tr>
<tr>
<td>A (LS)</td>
<td>18</td>
<td>8.6</td>
<td>5.7</td>
<td>1.3</td>
</tr>
<tr>
<td>B (LS)</td>
<td>18</td>
<td>9.3</td>
<td>7.4</td>
<td>1.7</td>
</tr>
</tbody>
</table>

Table 2

*Independent Samples t Test of Class A and Class B Letter Names Reading Scores*

<table>
<thead>
<tr>
<th>t-Test for Equality of Means</th>
<th>95% Confidence interval of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td>Sig.</td>
</tr>
<tr>
<td>.21</td>
<td>.65</td>
</tr>
<tr>
<td>.42</td>
<td>.34</td>
</tr>
</tbody>
</table>

Additionally, the change in Letter Sounds Assessment scores (i.e., posttest minus pretest) of Class A and the change in Letter Sounds Assessment (i.e., posttest minus pretest) of Class B were compared using an independent samples $t$ test. Results of the independent samples $t$ test for Letter Sounds Assessment scores were not significant,


Students in Class A \((M = 8.61, SD = 5.71)\) had a slightly smaller change in Letter Sounds Assessment scores than students in Class B \((M = 9.27, SD = 7.40)\), but not significantly. Therefore, the researcher failed to reject the null hypothesis for Research Question 1 (see Tables 1 and 3).

Table 3  

**Independent Samples t Test of Class A and Class B Letter Sounds Reading Scores**

<table>
<thead>
<tr>
<th>F</th>
<th>Sig.</th>
<th>t</th>
<th>df</th>
<th>Sig.</th>
<th>Mean Difference</th>
<th>Std. Error</th>
<th>Lower</th>
<th>Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td>.23</td>
<td>.14</td>
<td>-.30</td>
<td>34</td>
<td>.38</td>
<td>-.67</td>
<td>2.2</td>
<td>-5.1</td>
<td>3.8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-.30</td>
<td>31.6</td>
<td>.38</td>
<td>-.67</td>
<td>2.2</td>
<td>-5.2</td>
<td>3.8</td>
</tr>
</tbody>
</table>

**Research Question 2.** How does time-on-task for kindergarten students with a high-quality teacher-student relationship compare to kindergarten students who do not have a high-quality teacher-student relationship? The null hypothesis stated time-on-task for kindergarten students with a positive teacher-student relationship will be similar to kindergarten students who do not have a positive teacher-student relationship. The alternate hypothesis stated time-on-task for kindergarten students with a positive teacher-student relationship will be higher than kindergarten students who do not have a positive teacher-student relationship. Time-on-task of each student in Class A, with a high-quality teacher-student relationship, and time-on-task of each student in Class B, without a high-quality teacher-student relationship model, was assessed using the SEWC. For example,
the variables observed included engaging activities such as positive body language, consistent focus, verbal participation, student confidence, and fun and excitement from August (pretest) and October (posttest). In order to answer Research Question 2, the change in students’ positive body language (i.e., posttest minus pretest) in Class A and the change in students’ positive body language (i.e., posttest minus pretest) in Class B was compared using an independent samples \( t \) test. Results of the independent samples \( t \) test were not significant, \( t(34) = 1.33, p = .10 \). Students in Class A (\( M = .61, SD = .50 \)) had a higher change in positive body language scores than students in Class B (\( M = .39, SD = .50 \)), but not significantly (see Table 4).

Table 4

\textit{Group Statistics of Class A and Class B displaying Positive Body Language}

<table>
<thead>
<tr>
<th>Class</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>SEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>18</td>
<td>.61</td>
<td>.50</td>
<td>.12</td>
</tr>
<tr>
<td>B</td>
<td>18</td>
<td>.39</td>
<td>.50</td>
<td>.12</td>
</tr>
</tbody>
</table>

Additionally, the change in students’ consistent focus (i.e., posttest minus pretest) in Class A and the change in students’ consistent focus (i.e., posttest minus pretest) in Class B was compared using an independent samples \( t \) test. Results of the independent samples \( t \) test were not significant, \( t(34) = .77, p = .23 \). Students in Class A (\( M = .50, SD = .79 \)) had a higher change in consistent focus scores than students in Class B (\( M = .33, SD = .49 \)), but not significantly (see Table 5). The change in students’ verbal participation (i.e., posttest minus pretest) in Class A and the change in students’ verbal participation (i.e., posttest minus pretest) in Class B were compared using an independent samples \( t \) test.
test. Results of the independent samples \( t \) test were significant, \( t(34) = -5.77, p < .001 \).

However, students in Class A \( (M = -.17, SD = .62) \) had a significantly smaller change in verbal participation scores than students in Class B \( (M = 1.00, SD = .59; \) see Table 6).

Table 5

*Group Statistics of Class A and Class B displaying Consistent Focus*

<table>
<thead>
<tr>
<th>Class</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>SEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>18</td>
<td>.50</td>
<td>.79</td>
<td>.19</td>
</tr>
<tr>
<td>B</td>
<td>18</td>
<td>.33</td>
<td>.49</td>
<td>.11</td>
</tr>
</tbody>
</table>

Table 6

*Group Statistics of Class A and Class B displaying Verbal Participation*

<table>
<thead>
<tr>
<th>Class</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>SEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>18</td>
<td>-.17</td>
<td>.62</td>
<td>.15</td>
</tr>
<tr>
<td>B</td>
<td>18</td>
<td>1.0</td>
<td>.59</td>
<td>.14</td>
</tr>
</tbody>
</table>

The change in students’ confidence (i.e., posttest minus pretest) in Class A and the change in students’ confidence (i.e., posttest minus pretest) in Class B was compared using an independent samples \( t \) test. Results of the independent samples \( t \) test were significant, \( t(34) = 3.83, p < .001 \) (see Table 7). Students in Class A \( (M = 1.00, SD = 0) \) had a significantly larger change in confidence scores than students in Class B \( (M = .44, SD = .62) \). The change in students’ fun and excitement (i.e., posttest minus pretest) in Class A and the change in students’ fun and excitement (i.e., posttest minus pretest) in Class B were compared using an independent samples \( t \) test. Results of the independent
samples t test were not significant, t(34) = -.54, p = .30 (Table 8). Students in Class A (M = .78, SD = .55) had a slightly smaller change in fun and excitement scores than students in Class B (M = .89, SD = .68). Consequently, the researcher failed to reject the null hypothesis for time-on-task, with the exception of students’ confidence.

Table 7

*Group Statistics of Class A and Class B displaying Confidence*

<table>
<thead>
<tr>
<th>Class</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>SEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>18</td>
<td>1.0</td>
<td>.00</td>
<td>.00</td>
</tr>
<tr>
<td>B</td>
<td>18</td>
<td>.44</td>
<td>.62</td>
<td>.15</td>
</tr>
</tbody>
</table>

Table 8

*Group Statistics of Class A and Class B displaying Fun and Excitement*

<table>
<thead>
<tr>
<th>Class</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>SEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>18</td>
<td>.78</td>
<td>.55</td>
<td>.13</td>
</tr>
<tr>
<td>B</td>
<td>18</td>
<td>.89</td>
<td>.68</td>
<td>.16</td>
</tr>
</tbody>
</table>

**Research Question 3.** What is the relationship between time-on-task and kindergarten student performance in reading for students with a high-quality teacher-student relationship? The null hypothesis stated there is no relationship between time-on-task and reading performance. The alternate hypothesis stated there is a relationship between time-on-task and reading performance. In order to answer Research Question 3, students’ reading scores and students’ time-on-task from Class A were correlated using a Pearson Product Moment Correlation. The results of the Pearson Product Moment
Correlation were not significant, \( r (17) = .27, p = .28 \). Therefore, the researcher failed to reject the null hypothesis (see Table 9).

Table 9

*Pearson Product Moment Correlation of Letter Names and Letter Sounds (LNS) and Student’s Time-on-Task (STOT) for Class A*

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Pearson Correlation</th>
<th>Sig. (2-tailed)</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>LNS Change</td>
<td>.27</td>
<td>.28</td>
<td>18</td>
</tr>
<tr>
<td>STOT Change</td>
<td>.27</td>
<td>.28</td>
<td>18</td>
</tr>
</tbody>
</table>

**Research Question 4.** What is the relationship between time-on-task and kindergarten student performance in reading for students who do not have a high-quality teacher-student relationship? The null hypothesis stated there is no relationship between time-on-task and reading performance. The alternate hypothesis stated there is a relationship between time-on-task and reading performance. In order to answer Research Question 4, students’ reading scores and students’ time-on-task from Class B were correlated using a Pearson Product Moment Correlation. The results of the Pearson Product Moment Correlation were not significant, \( r (17) = .19, p = .45 \). Therefore, the researcher failed to reject the null hypothesis (see Table 10).
Table 10

*Pearson Product Moment Correlation of Letter Names and Letter Sounds (LNS) and Student’s Time-on-task (STOT) for Class B*

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Pearson Correlation</th>
<th>Sig. (2-tailed)</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>LNS Change</td>
<td>.19</td>
<td>.45</td>
<td>18</td>
</tr>
<tr>
<td>STOT Change</td>
<td>.19</td>
<td>.48</td>
<td>18</td>
</tr>
</tbody>
</table>
Chapter 5: Discussion

Introduction

The purpose of this study was to determine how self-regulation through high-quality teacher-child relationships affects kindergartners’ reading performance and off-task behaviors at a Title I elementary school in South Florida. The researcher collected archival data on two kindergarten classrooms: one that used self-regulation through high-quality teacher relationships and one that did not. The Student Engagement Walkthrough Checklist (SEWC; see Appendix) was used as a direct observation measure to assess levels of on- and off-task behavior while the teacher provided opportunities for the students to self-regulate their behaviors. The SEWC was used to measure the number of times a student was off-task during whole-group instruction and teacher/student interactions. The researcher collected archival data from the Letter Names and Sounds Assessment. This data was compared to another kindergarten class that did not use self-regulation through high-quality teacher-child relationships.

Summary of Findings

The research determined the reading scores for kindergarten students in a classroom with a high-quality teacher-student relationship were not significantly higher than a classroom without a high-quality teacher-student relationship. Additionally, time-on-task had no effect on classroom management with the exception of confidence, which was apparent in the classroom with high-quality teacher-student relationships. The following research questions will summarize the findings.

Research Question 1. How do the reading scores of kindergarten students with a high-quality teacher-student relationship compare to the reading scores of kindergarten
students who do not have a high-quality teacher-student relationship? The reading scores of each student in Class A, with a high-quality teacher-student relationship, and the reading scores of each student in Class B, without a high-quality teacher-student relationship model, was assessed using the Letter Names and Letter Sounds Assessment from August (pretest) and October (posttest). Based on the results, the archival data showed that a high-quality teacher-student relationship had no effect on students’ reading scores.

**Research Question 2.** How does time-on-task for kindergarten students with high-quality teacher-student relationship compare to kindergarten students who do not have a high-quality teacher-student relationship? Time-on-task was broken down into positive body language, consistent focus, verbal participation, student confidence, and fun and excitement. Students had similar body language, focus, participation, and fun and excitement in both classes. However, students’ confidence in Class A was significantly higher as a result of the high-quality teacher-student relationship.

**Research Question 3:** What is the relationship between time-on-task and kindergarten student performance in reading for students with a high-quality teacher-student relationship? The results for the relationship between time-on-task and kindergarten student performance in reading for students with a high-quality teacher-student relationship (Class A) were not significantly correlated.

**Research Question 4:** What is the relationship between time-on-task and kindergarten student performance in reading for students who do not have a high-quality teacher-student relationship? The results for the relationship between time-on-task and kindergarten student performance in reading for students who do not have a high-quality
teacher-student relationship (Class B) indicated that time-on-task was not significantly correlated to students’ reading scores.

**Interpretation of Findings**

Based on the findings of this research study, very few of the researcher’s initial assumptions were supported, while most of the others were not. The researcher’s initial assumption that students with a high-quality teacher-student relationship would produce higher reading scores than students without a high-quality teacher-student relationship was not supported based on the quantitative archival reading score data that was collected. The researcher made this assumption because of the high-quality teacher-student relationships being formed in Class A. The measurement of the letter names and sounds was collected at the beginning of the school year and 3 months into the school year. It is possible the teacher in Class A had more opportunities to build a high-quality teacher-student relationship, but not enough to make a significant difference. Additionally, the teacher in Class B likely made a connection with her students over the 3-month period, and any connection, positive or not, could result in increased content knowledge or student achievement.

In addition, the researcher’s initial assumption of a significant relationship between student’s time-on-task and reading scores was not supported based on the archival data that was collected. These assumptions made by the researcher derived from the way the classes structured their instructional time and schedules. According to Bandura’s Social Learning Theory, self-regulation refers to the process whereby children learn to respond appropriately to their environment by modeling others (Denham, 2006); self-regulated children can easily learn new behaviors by watching others. Children,
however, must have the opportunity to practice self-regulation in the classroom. The students in Class A modeled high-quality relationship skills with both peers and the teacher; and thus were provided opportunities for self-regulation. Students in Class B, on the other hand, did not seem to have an opportunity to build relationships in the classroom. This is likely due to the nature of a direct-instruction classroom, which lacks collaborative learning opportunities.

Although time-on-task is difficult to measure, Rideout, Dunham, Morgan, and McCall (2014) perceived time-on-task to be effective at gathering information about a student’s behavior during a formal assessment or in the student’s usual environment (i.e., the classroom or playground). The time-on-task variables measured by the SEWC included positive body language, consistent focus, verbal participation, student confidence, and fun and excitement. Clearly, these indicators were occurring in both classes. Although students in Class B might not have had opportunities to self-regulate their behaviors in the class, they likely had these opportunities in more informal settings (e.g., lunch, playground, etc.), which could have carried over to the classroom environment. Therefore, all students had several opportunities to self-regulate their behaviors, which minimized the effects of the intervention.

Additionally, SEWC produced only a snap shot of time-on-task and might not have represented an overall detailed observation. During the time-on-task observations, the high achieving students may have demonstrated being off-task due to not being challenged enough by the teacher or being bored. Below level and on level students may have displayed off-task behavior because of academic frustration. Although the researcher anticipated time-on-task to be highly correlated with reading scores, it was not,
the reason for should be the emphasis for future research.

Additionally, the researcher's assumption that students’ body posture, which indicates focus on the speaker/teacher and/or other students during a whole group lesson, would be higher in a classroom with a high-quality teacher-student relationship (Class A) was not supported. Body posture and focus on the teacher and peers appeared only slightly more often in the environment where the teacher maintained a high-quality relationship with every student in the classroom. Based on the findings, in Class A, with high-quality teacher-student relationships, the teacher provided bidirectional, interpersonal interactions in the classroom. The students had the ability to self-regulate their body posture and engagement in the learning process while making connections to what was being taught. In Class B the teacher did not implement high-quality teacher-student relationships, but still had students display self-regulated body posture and focus. Therefore, it would make intuitive sense that time-on-task, specifically with regard to body posture and focus, would be similar in both classes.

One of the assumptions that was supported in this study was students’ confidence. The students in Class A, with a high-quality teacher-student relationship, had a significantly larger change in confidence scores than students in Class B, without a high-quality teacher-student relationship. Confidence is a feeling of self-assurance arising from one's appreciation of one's own abilities or qualities. Students gain a sense of self-efficacy when they are able to master skills and achieve goals within those skill sets (Brinkman, Tichelaar, van Agtmael, de Vries, & Richir, 2015). The teacher in Class A with a high-quality teacher-student relationship provided opportunities for the students to turn-and-talk with their peers, express themselves, make decisions, and solve problems;
thus instilling confidence in her students. Additionally, the teacher in Class A with a high-quality teacher-student relationship gave the students difficult challenges in particular areas, which lead to persistence. The classroom was primarily learner-led and the teacher provided a process that encouraged student agency and confidence. The students were self-directed and took ownership of their strengths and areas for growth. In addition, the students in Class A had the option to choose appropriate strategies to learn whether the task was easy or difficult; in other words, the teacher fostered their self-confidence. Class B was primarily teacher-directed with some limited opportunities for students to engage in decision-making and self-assessing. Therefore, students were given limited opportunities to build confidence, which could account for the significant findings.

**Context of Findings**

Classroom management is the key to a successful learning environment that promotes student achievement and academic involvement (Ispa & Yen, 2000). Additionally, parental participation and consistency in the home provides the student with motivation to be successful in the classroom. The teacher must develop a relationship with each student in order to have effective learning (Ispa & Yen, 2000). Class A had a teacher who tried to build a high-quality teacher-student relationship. This was obvious when entering the classroom. Learning was constantly occurring both academically and socially. Positive interaction demonstrated students were more engaged in learning and classroom activities. Many kindergarten classrooms lack positive interaction due to off-task behavior and teachers need assistance with implementing different strategies and programs (Baden et al., 2011).
However, the teacher-student relationship in Class B was not as apparent, but structured in a way students were given the opportunity to participate in learning. The class was teacher-led and students did not interact with their peers. Direct instruction refers to a rigorously developed, fast-paced, and highly scripted method for teaching that provides constant interaction between students and the teacher (Gersten, & Keating, 1987). The teacher used direct instruction and the students had difficulty meeting classroom expectations. Self-regulation is a child’s ability to control their behavior and involves social, emotional, and cognitive development (Florez, 2011). The students in Class B were not given the opportunity to self-regulate their behavior. They were limited to teacher-led direct instruction and did not have opportunities to collaborate or have academic conversations during learning. Thus, not having the opportunity to self-regulate their behavior or make connections between learning and social skills.

Kindergarten students are expected to follow the teacher’s directions, show persistence in completing activities, and focus on instruction. In addition, students are expected to cooperate and form relationships with a new teacher and classmates. In a recent study, Kiuru, Laursen, Aunola, Zhang, Lerkkanen, Leskinen, and Nurmi (2016) tested the proposition that a single high-quality relationship (either with a teacher or a parent) can shield against early childhood students' adjustment problems. The focus of the research was on the positive dimension of teacher-student relationships. Teachers’ positive affects towards the student in teaching situations were used as the indicator. Positive emotions towards a student are closely related to sensitive teaching practices and the closeness of teacher-student relationships (Spilt & Koomen, 2009). Engaging a student with emotionally warm and positive interactions assists with feeling valued and
accepted, which optimally scaffolds student academic achievement and adjustment. The results showed high positive teacher affect buffered against the development of adjustment problems in Kindergarten (Kiuru et al., 2016). The presence of high-quality teacher-student relationships provided opportunities for students to use social skills daily. Similarly, the teacher in Class A had a high-quality teacher-student relationship with the students, which assisted with self-esteem and confidence in their learning.

Additionally, teacher-student relationships in kindergarten play an important role in fostering behaviors for socio-economically disadvantaged children. The behavioral adjustment and learning engagement necessary for school success is affected by interactions within the classroom. A study conducted by Lee and Bierman (2015) followed 164 children as they transitioned from Head Start through first grade. Regression analysis revealed significant, positive associations between kindergarten support and learning engagement and literacy skills; and significant, negative correlations between kindergarten support and children’s aggressive behaviors and social withdrawal (Lee & Bierman, 2015). Lee and Bierman examined children over a 3-year period; it is highly likely the 3-month implementation period in the present study was not long enough to foster significant change.

Additionally, a study conducted by Zee and Bree (2016) found significant, positive associations between student-perceived confidence and self-regulation. However, there was an indirect association between student-perceived conflict and task-orientation. The results suggested students’ perceptions of high-quality teacher-student relationships and confidence may be particularly important for their ability to regulate motivational and cognitive aspects of their own learning. The results extend prior
research between teacher-student relationships and kindergarten students’ self-regulation (Cadima, Doumen, Verschueren, & Buyse, 2015). Similarly, in the present study, teacher-student relationships built student confidence within the 3-month implementation period.

Moreover, Cadima et al. (2015) suggested the early benefits of high-quality teacher-student relationships for students’ self-regulation may go beyond the first years of schooling. Specifically, middle school students who experience relationships marked by high levels of confidence and affection and low levels of conflict generally tend to put more emphasis on learning, which drives their willingness to master and persist at academic tasks. Warm and nurturing relationships seem to provide students with opportunities for metacognitive skill development (Cadima et al., 2015). This is an important discovery, given teacher-student closeness, though gradually declining, has been recognized to offer students the support needed to successfully navigate social, motivational, and academic challenges of the upper elementary years. Thus, teachers should be increasingly made aware of the quality their daily interactions with a student may have (Cadima et al., 2015). The researcher did not see significant results in the current study; however, the results may be different if teacher-student relationships continue throughout elementary school and into middle and high school.

**Implications of Findings**

The potential implications of this project concerning high-quality teacher-student relationships and kindergarten academic success are essential. Kindergarten teachers at the school under study will gain the necessary tools to ensure early learners are receiving social and emotional learning and opportunities to self-regulate their behavior.
Kindergarten teachers will gain self-confidence and assurance in knowing they can provide an optimal learning environment. Most importantly, kindergarteners will be participants in a high-quality learning environment that encourages exploration, and cognitive and social-emotional development.

According to the research questions related to this quantitative study, an examination was completed to determine if kindergarten reading scores are effected by high-quality teacher-student relationships and time-on-task as it relates to learning. In addition, students’ reading scores were measured. The school under study was given recommendations regarding the data and findings and analysis with specific recommendations in an effort to guide educators and parents in supporting the academic reading scores, letter names and letter sounds, in kindergarten.

Kindergarten teachers exhibiting high-quality teacher-student relationships have a powerful and positive influence on young children as it relates to kindergarten time-on-task and academic achievement. According to The Centre for Community Child Health (2008), children who have been exposed to quality care, early learning, and high-quality relationships are in a better position to receive continued learning. There were only two classes in this study and although relationships were formed, students from both classes made similar reading gains. Having conversations with the teacher and peers throughout the day formed the relationships in Class A. The conversations included Accountable Talk (i.e., I agree because…, I disagree because…), which gave the students ownership of their answers. In Class B, the students were able to form relationships with peers during lunch, recess, or free time. It is possible that both classes had opportunities to establish or form relationships, which minimized any effects on their reading scores.
Limitations of the Study

Although the results of this study did not produce the expected results, there were some limitations that should be taken into account when interpreting the data. The first limitations involve the instruments used in the study. There is some discussion about the validity of any form of standardized assessment for children at such a young age. The construct validity of a standardized test refers to the association of the test with an underlying theory (Spielberger, Gorsuch, Lushene, Vagg, & Jacobs, 1983). The Letter Names and Sounds Assessment was administered one-on-one by the teacher to each student in August and October and likely did not allow time for significant gains of student achievement. This assessment is a state requirement in kindergarten to assess what upper and lowercase letter names and sounds the students recognize. This data is collected four times throughout the school year and used to plan learning targets and strategies geared towards reading success. Unfortunately, this assessment does not measure fluency or phonics, which are necessary for reading success. The researcher assumed this assessment would provide clear data for academic achievement in Kindergarten; however, the researcher strongly feels the instrument itself was a limiting factor in the design.

Additionally, the researcher created the SEWC as part of her job a couple years prior to data collection. Since development of the SEWC was not part of the dissertation, content validity was never established. Although the SEWC has been helpful with classroom observations and are consistent with informal teacher observations, the validity of the instrument is questionable. Therefore, establishing reliability and validity of the instrument should be a priority when conducting future research on the current topic.
According to Creswell (2012), threats to internal validity are problems in drawing correct inferences about whether the variation in one variable (time-on-task) contributes to the variation in the other variable (student achievement). The SEWC measured the students’ time-on-task (i.e., positive body language, consistent focus, verbal participation, student confidence, and fun and excitement) in August and in October. The observations in Class A and Class B took place on different days and at different times, which may have affected the internal validity of the study. In addition, this instrument may be biased in regards to who is performing the walkthrough or observation, since interrater reliability was never established, which may be an additional threat to the internal validity of the study.

Mortality was an additional threat to the study’s internal validity due to students being out sick or late to school on assessment days or during instruction time, thus limiting the number of students available for the study. Additionally, students’ reading scores will naturally improve as a result of maturation, making maturation a threat to the study’s internal validity. Cognitive maturity is related to how students think and could change with experience over the 3-month time frame between the testing of Letter Names and Sounds in August and October. Social maturity measures how students relate to friends and increases with age; therefore, the students in both Class A and Class B may form relationships naturally and be more attentive during the SEWC observations as a result (Creswell, 2012).

Another threat to internal validity may be a variety of personal variables the students may have encountered on the day of the observation or assessment. For example, lack of nourishment, sleep deprivation, living circumstances, or personal hygiene may
effect the outcome of the data. Furthermore, there may be a teacher effect due to different teaching methods in Class A and Class B. The observer may not be able to tell if one teacher is better than the other. Effective teachers have been labeled ideal, analytical, dutiful, competent, expert, reflective, diverse, and respected. Effectiveness is also defined in terms of student achievement and high performance ratings from administration (Cruickshank & Haefele, 2001). The researcher did not have access to teacher-effectiveness evaluation data; therefore, it is unknown whether one teacher was more effective than the other, which is a threat to the study’s internal validity.

Moreover, it is unknown whether high-quality teacher-student relationships were implemented daily in Class A or if they were just apparent during classroom observations. If the teacher in Class A was not consistent in her implementation, and students in both classes were getting opportunities for collaboration during informal meeting times (e.g., lunch, recess) then it would make sense that the classes were similar in terms of their time-on-task scores. Additionally, other factors, besides teacher-student relationships, affect student achievement, including peer relationships, safety and order, academic expectations, and classroom environment (MacNeil, Prater & Busch, 2009). Therefore, future research should work to implement an experimental design, controlling all study variables, in order to establish a true cause-and-effect relationship (Creswell, 2012).

According to Creswell (2012), external validity is the ability to generalize study results to other people, settings, and situations. The convenience sample threatens the external validity of the study since the students may not be representative of the entire population. This limits the generalizability of the study to others outside of the target
population.

Finally, this study needs more time to determine the effects of a high-quality teacher-student relationship on time-on-task and reading achievement. The SEWC assisted with monitoring student time-on-task but was only measured twice within the 3-month period, which likely did not provide enough time for kindergarten reading scores or behavior to improve. High-quality teacher-student relationships were formed in Class A and provided a social learning environment for the students; however, the reading scores were not much different from the students in Class B with direct instruction.

Additionally, high performing teachers, whether they implement direct instruction or high-quality teacher-student relationships, need more time to produce academic gains in reading.

**Future Research Directions**

Future research should focus on the limitations of this study to further improve the understanding of the relationship between self-regulation and kindergarten reading scores. First, the current study could be expanded to include a longer implementation period to provide a more accurate connection between high-quality teacher-student relationships and time-on-task as it relates to student reading scores. The students’ reading scores and levels in two kindergarten classes could be assessed at the beginning, middle, and end of kindergarten or after successfully transitioning to first grade. In addition, time-on-task could be observed at the beginning, middle, and end of kindergarten, and continued through first grade.

Other potentially important variables related to time-on-task such as adhering to classroom rules and expectations could be included in a follow-up study. The teacher sets
the climate of the classroom by setting expectations and modeling appropriate behaviors for the students to follow in class. Once these expectations are embedded, teachers can be potential mediators or moderators of the relationship between self-regulation and time-on-task. In addition, a longitudinal study to determine whether children’s self-regulation skills in kindergarten are predictors of children’s reading scores in first grade would add value to the current literature that pertains to early self-regulation skills and their ability to predict academic achievements in math and literacy in future grades.

Future research should also focus on an assessment series that would capture the full impact of time-on-task and social skills that impact kindergarten reading scores. The assessments should include a variety of time-on-task measures for each social skill to strengthen the results of the current study. Likewise, it would be beneficial to compare these measures to both direct and indirect measures of self-regulation.

The education system is shifting at an accelerated pace. Learning, teaching, and curriculum are shifting the way education prepares learners in public education (Prince, 2015). This study measured two kindergarten classes in a Title I school located in a low-income area that most likely will endure these changes in education. Research will continue to change and exhibit the relationship between student behavior and academic achievement.

Summary

Substantial evidence shows that high-quality teacher-student relationships are very important for students. The research shows that students’ relationships with teachers have improved both student achievement and social interactions (Bronson, 2000; Cadima et al., 2015; Lee & Bierman, 2015). Additionally, the research shows time-on-task and
self-regulated behavior assist with academic achievement over an extended period of time (Lee & Bierman, 2015). However, much of this research is dated due to the educational system shifting and the increasingly diverse student body. Conducting more research on how self-regulation and teacher-child relationships affect kindergarten students’ academic achievement and time-on-task may be essential in improving outcomes of students at all grade levels. The research can potentially inform future interventions to help all students perform better both academically and socially.
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perceived teacher–child relationships between preschool and kindergarten. 

relationships on lower achieving readers’ engagement and achievement in the 


doi:10.1007/s10802-006-9055


doi:10.1080/00405840902776392


doi:10.1080/17405629.2016.1196587
Appendix

Student Engagement Walkthrough Checklist