The Relationship Between Positive Teacher-Student Relationships

and Academic Achievement

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ABSTRACT

The literature cited in this study indicates that positive teacher-student relationships support student achievement. The check-in check-out (CICO) intervention used in the study is designed to establish and support positive teacher-student relationships. The purpose of this study was to determine if elementary school students who were behaviorally or academically at risk who participated in a nine-week CICO intervention (n = 14) had higher academic achievement as measured by the Scholastic Reading Inventory (SRI) (Scholastic, Inc., 2011) compared to a control group who did not receive the intervention (n = 14). The CICO students worked with individual mentors who provided support such as giving additional positive attention, setting and meeting daily goals, and encouraging students through celebration of their successes. The mean achievement as measured by SRI Lexiles of the CICO group (Mean = 575.36, SD = 267.75) did not differ significantly from that of the control group (Mean = 468.43, SD = 290.06) [t(26) = 1.01, p = 0.32]. Although, the null hypothesis failed to be rejected, qualitative data suggests that there were benefits to implementing the intervention. Implications, limitations, and suggestions for future research are discussed.

CHAPTER I

INTRODUCTON

Overview

Today's classrooms are dynamic systems that fluidly adjust to the constantly changing community of members (Evertson & Poole, 2008). Teachers are responsible for constructing responsive classroom environments designed to meet the academic, social, and emotional needs of all students. Learning can be an extremely vulnerable process in which students must feel safe taking risks as they navigate unknown territory. Jennings and Greenberg (2009) refer to the work of Mitchell-Copeland, Denham and DeMulder, Murray and Greenberg, and Watson when they state that, "Therefore, when teachers are warm and supportive, they provide students with a sense of connectedness with the school environment and the sense of security to explore new ideas and take risks- both fundamental to learning" (p. 500). Fostering positive teacher-student relationships as well as student-student relationships is a key component in creating a classroom environment intended for meaningful learning experiences.

As students progress through their education, it is imperative that teachers foster and maintain positive teacher-student relationships within the context of a supportive classroom environment. According to LaRocque (2008), students become less satisfied with their classroom environment as they progress through the grades. Supportive relationships with teachers help create a network of social and emotional supports that encourage social, emotional, and academic success (Jennings & Greenberg, 2009). According to the United States Department of Education (USDE), "In contrast, students who report experiencing inadequate relationships with their teachers may feel

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disconnected or alienated, and students who feel alienated from school are more likely to engage in antisocial and delinquent behaviors and to fail academically" (as cited by Brackett, Reyes, Rivers, Elbertson, & Salovey, 2011, p. 28). According to Crosnoe and colleagues, supportive teacher-student relationships may serve as protection against undesirable outcomes for at-risk students (as cited by Brackett et al., 2011). With increased demands for students and teachers come mounting pressures that are present in schools today. These increased pressures pose risks to school climate and teacher-student relationships. "In many school districts, schools are rated and financial incentives are given based on results of these tests. Teachers feel pressured to prepare students to succeed on the test. The teacher should be careful not to transfer the pressure and anxiety they feel to the students" (LaRocque, 2008, p. 303).

Jennings and Greenberg (2009) call for implementation of interventions that will prepare teachers to develop positive relationships with all students and help promote student engagement and connectedness. According to Brackett et al. (2011), "When teachers can create a warm and open classroom environment that supports the emotions of students, students feel more connected, behave better, and are more apt to succeed in school and grow into successful adolescents and adult citizens" (p. 34). Schools can utilize school wide interventions such as Positive Behavioral Interventions and Supports (PBIS) to establish and maintain positive school climates. PBIS is designed to prevent behavioral problems through teaching and positively reinforcing expectations.   PBIS offers additional interventions such as CICO that are designed to support students who are at risk of academic failure due to behavior issues or other external stressors.

The researcher's interest in this topic has resulted from several years of experience working in a highly diverse, Title I school. Her experiences have indicated that the student's relationship with the teacher may be the only positive relationship present in his or her life. It was the researcher's experiences that suggested student achievement increased when a positive relationship with the teacher was present. The researcher serves as one of her school's PBIS coaches and has attended multiple trainings on the interventions available through school-wide implementation of PBIS such as CICO. Because the researcher wondered if a positive teacher relationship contributes to increased academic achievement, she decided to conduct a study exploring this relationship.

Statement of Problem

The purpose of this study was to determine if building additional positive relationships between teachers and students through the CICO intervention affects students' academic achievement as measured by the Scholastic Reading Inventory (SRI) (Scholastic, Inc., 2011).

Hypothesis

The null hypothesis is that there will be no significant statistical differences between the SRI Lexiles of at-risk elementary school students who participate in a CICO intervention and a control group of at-risk students.

Operational Definitions

Below are the operational definitions for all variables and concepts relevant to this study:

At-Risk Students*:* At-risk students are those identified by teachers or other adult staff in the school who may be in danger of increased behavioral issues or academic failure.

These students are not responding to the universal tier one supports provided through a school-wide PBIS system.

Academic Achievement*:* For purposes of this study, academic achievement is defined as student achievement in reading as measured by SRI Lexiles.

Check-in check-out (CICO): CICO is a tier two PBIS intervention designed to support students who are at risk for increased behavioral issues or academic failure. The intervention provides students with a mentor with whom the student checks in twice daily. The mentor helps remind students of expectations, provides affirmations for successes, and gives encouragement as students work to meet specific behavioral goals (Campbell & Anderson, 2011).

CHAPTER II

REVIEW OF THE LITERATURE

This literature review examines the effect classroom climate and teacher-student relationships have on the academic achievement of students. The first section provides background about creating a positive, supportive, and encouraging classroom environment. The second section describes the relationship between classroom climate and academic achievement. The third section explores a teacher's social emotional competence and how that knowledge (or lack thereof) can affect student outcomes. The final section describes the importance of providing effective teacher support and establishing positive teacher-student relationships.

Creating a Positive Classroom Environment

The classroom environment consists of three interrelated parts: the physical space, the instructional space, and the social space. "As dynamic systems, classrooms adjust to reflect the developing community of their members" (Evertson & Poole, 2008, p. 3). For example, the physical arrangement of the classroom provides cues to the students regarding expectations for appropriate interactions; desks in rows facing forward send a vastly different message than desks in small groups facing each other. A flexible physical space may enable teachers to respond more effectively to students' needs as they change throughout the year. According to Evertson and Poole, in a proactive classroom, students may have the responsibility to choose when they need personal space to work independently or when they need teacher-led small group instruction. Use of the instructional space within the classroom is a factor in assisting students to meet all

learning goals. These goals address the components of what the students should understand as well as how the students will be able to attain these understandings.

The social space of the classroom is established through the teacher's classroom management. "The social space of a classroom comprises of the exchanges between teacher and students and among students" (Evertson & Poole, 2008, p.5). Therefore, the classroom management system communicates the teacher's beliefs about essential content and the learning process. Classroom management typically is understood as discipline strategies and how teachers handle misbehavior in the classroom. Classrooms in which norms, expectations, and rules are clearly established and consistently reinforced will support student learning. Teachers are responsible for creating a classroom environment conducive to both academic and social-emotional learning. Trust is a key component in effective classroom management and can be established through consistency and dependability. Providing direct instruction related to classroom rules and procedures is a key part of this consistency. Consistency in expectations, positive consequences and instructive feedback can help create a sense of trust and a classroom environment with positive and healthy teacher-student relationships, therefore increasing the number of students who have access to and are engaged in academic instruction. According to Evertson and Poole (2008), "Everything the teacher does has implications for the classroom, from creating the setting, decorating the room, and arranging the chairs; to speaking to children and handling their responses; to putting routines in place, then executing, modifying, and reinstituting them; to developing and communicating rules so that they are understood by students" (p. 2).

Current school populations differ based on many factors, including race, ethnicity, and socioeconomic status. According to Alexander, Entwisle, and Thompson, as cited by Spilt, Hughes, Wu, and Kwok (2012), "The influence of race and socioeconomic background on social interactions is pervasive in an economically and racially stratified society" (p. 1183). These factors should be considered when establishing a safe and effective classroom environment. A study was conducted within suburban schools to examine the relationship between school climate factors such as discipline infractions and school size and the percentage of students performing poorly on standardized assessments. Despite previous beliefs that issues related to school climate differ in urban and suburban schools, researchers concluded that urban and suburban schools face the same issues. In this particular study, "While all levels of frequency were significant, weekly disorder appears to have the largest effect on academic achievement measured by standardized tests" (Sulak, 2016, p. 680). This finding indicates that a positive classroom climate and effective classroom management affect student achievement in a positive manner. All students, regardless of race or socioeconomic background, can benefit from positive role models and supportive structures when working towards academic success in school.

Classroom Climate and Academic Achievement

Classroom climate has multiple characteristics that can affect student growth and achievement. A study conducted by LaRocque (2008) examined students' perceptions of the classroom climate and the effect of classroom climate on math and reading achievement. The areas of classroom environment examined were satisfaction (whether the student enjoys learning and their class), friction (getting along vs. experiencing

conflicts), competitiveness, difficulty level of the work, and cohesiveness (sense of belonging). Charles notes that, "Classrooms that are perceived as safe, warm, supportive, and non-threatening encourage work and promote a sense of enjoyment and accomplishment" (as cited by LaRocque, 2008, p. 289). Research such as that reported by LaRocque indicates that how students perceive their learning environment can have a more powerful effect on learning outcomes than the environment itself. In terms of student satisfaction, LaRocque found that as students progress in grade level, they become less satisfied and content with their learning environments. If researchers can identify what is causing the reduced level of students' satisfaction, then teachers are more likely to be prepared to prevent this decrease from occurring. When striving to maintain a classroom environment conducive to student satisfaction and learning, it is important for teachers to be sensitive to the various factors that may impact the student's perceptions and motivation.

Research such as that discussed below suggests that in addition to the quality of teacher-student relationships, the social, instructional, and organizational climate of schools also influences student engagement and academic achievement. Pianta et al. argued that "Generally speaking, high-quality classrooms are not only warm, child-centered, and supportive of autonomy, but also are marked by teachers who offer constructive feedback, ask open-ended questions and provide multimodal activities to cater to differing learning types and sustain interest" (as cited by Dotterer & Lowe, 2011, p. 1651). Dotterer and Lowe conducted a study that examined how students' previous achievement difficulty and the environment, which encompasses classroom climate, classroom quality, and student-teacher relationships, interact to affect student

engagement and achievement. The results of this study "support the assertion that enhancing classroom context with high quality instruction, positive social/emotional climate, and reducing student-teacher conflict can increase students' engagement which, in turn, enhances academic achievement" (p. 1657).

In order for students to attend to academic objectives, they need to feel comfortable, safe, and supported in their classroom environment. Student reports of supportive teachers have been linked to engagement in the learning process, improved attendance, increased academic achievement, and fewer problems and risk-taking behaviors (Brackett et al., 2011). While there is research to support the understanding that emotions play an essential role in learning, little has been done to increase teacher capacity to incorporate this information in their classroom interactions with students. One study described by Brackett et al. suggests incorporating social and emotional aspects of students' learning into teachers' professional development experiences. They state, "When teachers can create a warm and open classroom environment that supports the emotions of students, students feel more connected, behave better, and are more apt to succeed in school and grow in to successful adolescent and adult citizens" (p. 34).

Developing Teacher Social and Emotional Competence

Teacher social and emotional competence (SEC) not only can contribute to fostering positive teacher-student relationships, but also can help establish effective classroom management and build social and emotional understandings in students. "Socially and emotionally competent teachers set the tone of the classroom by developing supportive and encouraging relationships with their students, designing lessons that build

on student strengths and abilities, establishing and implementing behavioral guidelines in ways that promote intrinsic motivation…" (Jennings & Greenberg, 2009, p. 492).

Jennings and Greenberg (2009) further observe that developing teacher-student rapport as well as establishing and clarifying the role of students, teachers, and the classroom environment are essential in helping to facilitate both behavioral and learning outcomes. While the classroom environment is collaboratively constructed by both teachers and students, teachers play a large role in establishing positive rapport between teacher and students as well as among students through modeling supportive behaviors and language. When a strong, trusting bond exists among the members of the classroom community, students will feel safe to express themselves freely.

A proactive approach to classroom management can help create a supportive environment for social, emotional, and academic learning. According to Weinstein, as cited by Jennings and Greenberg (2009), the focus of classroom management shifted from an emphasis of controlling student behavior through rules to an emphasis on fostering healthy relationships and self-regulation. Jennings and Greenberg explain that this shift consists of four key changes that revolve around teacher social-emotional competence. First, classroom management should be comprised of more than quick fixes and tricks; it should include a comprehensive set of thoughtful and reflective practices. For example, "A teacher who recognizes an individual student's emotions, understands the cognitive appraisals that may be associated with these emotions, and how these cognitions and emotions motivate the student's behavior can effectively respond to the student's individual needs" (p. 493). Second, the emphasis should shift from compliance to self-regulation; students need to learn how to reflect and manage emotions in order to

make appropriate decisions in the future. The third shift expands classroom management from teaching and enforcing rules to include establishing positive relationships between the teacher and his/her students as well as among students. The final shift in thinking moves teachers from rigid, routine, teacher-directed work to active and student-centered work.

Positive behavioral supports can help create an environment where students feel supported and safe. "Young people need to know what adults expect regarding conduct, that consistent and predictable consequences result from not meeting those expectations, and that the expectations are fair" (Klem & Connell, 2004, p. 262). Positive Behavioral Interventions and Supports (PBIS) provides a framework for teachers and schools to set, teach, and reinforce desired behaviors. This system, rather than being solely punitive, is corrective and supportive, thus enabling teachers to deescalate problem behaviors effectively without inciting conflict or jeopardizing the health of the teacher-student relationship (Caldarella, Shatzer, Gray, Young, & Young, 2011).

School-wide positive behavior support (SWPBS) consists of a tiered response system designed to guide student behavior and provide supports necessary to ensuring an effective learning environment for all students (Todd, Campbell, Meyer, & Horner, 2008). The first tier of support applies to all students, while the second tier provides support for targeted students who are at risk of exhibiting increased problem behaviors without additional support. The third tier of the program provides individualized, function-based support for students with more intensive needs. CICO is a second tier, targeted intervention designed to provide additional support for at-risk students. According to a study conducted by Campbell and Anderson (2011), "key features of the

intervention include brief morning and afternoon meetings with the intervention coordinator, use of a point card on which the teacher monitors student behavior and teacher feedback at predetermined times" (p. 315). The CICO intervention is designed to be a temporary intervention where students are dismissed gradually after behavior stabilizes and adequate progress is made.

Campbell and Anderson (2011) conducted a study to examine the contribution of teacher feedback provided through the CICO intervention. The participants in this study were second and fifth grade students who had either accumulated two to five office referrals or were nominated by a teacher. During the study, the researchers collected data to track problem behaviors, academic engagement, and the percentage of points earned towards their goals. In this study, academic engagement was defined as following teacher directions, maintaining attention during instruction, and completing assignments. Campbell and Anderson found that the implementation of CICO resulted in increased academic engagement for all participants, even when teachers started to remove feedback sessions in a systematic manner.

The Importance of Teacher Support and Teacher-Student Relationships

Teachers support students through structure, autonomy support (taking control of one's own learning and decision-making), and involvement. These contextual features affect student engagement, which in turn influences school commitment and academic performance. Research such as that cited below indicates that because teachers typically prefer working with students who are cooperative and compliant, disruptive, at-risk students lack the encouragement and connectedness to their teachers that potentially could counteract academic and life stressors (Toste, Heath, & Dallaire, 2010). On the

other hand, when "… children's teachers make them feel supported and capable, they behave in ways that support their cognitive development; the students may enjoy school, feel confident in their academic abilities, and be willing to engage actively in classroom activities" (p. 374).

Teachers play an important role in the social and emotional development of their students. Teaching involves more than the content to be taught and how that content is taught; teachers also provide additional instruction and support through the manner in which they interact with students, how they manage the classroom, and how they manage their own emotions. "As children make the transition from home to school, teachers become a primary source of guidance and emotional support" (Toste et al., 2010, p. 371). Multiple theories such as those cited below support the importance of positive teacher-student relationships. Attachment theory states that a relationship with a supportive, trustworthy, and supportive caregiver will promote social and emotional development (Jennings & Greenberg, 2009). Based on this theory, when teachers create a warm and supportive classroom environment, students will feel safe to take risks and explore new learning. The self-system motivational theory describes the connections and interactions among experiences, actions, and outcomes. Connell & Welborn argue, as cited by Spilt et al. (2012), that "poor relationships with teachers thwart children's basic need to relatedness and diminish children's feelings of belonging at school and perceived academic competence, thereby obstructing motivational processes that drive academic achievement" (p. 1180). On the other hand, when students have positive experiences with their teachers, they are more likely to increase their engagement in learning and experience greater academic achievement. Furthermore, according to Erikson's

psychosocial theory, children in middle childhood (ages six to eleven) engage in a conflict between industry and inferiority (Berk, 2014). As cited by Berk, Erikson's sense of industry includes "a positive, but realistic self-concept, pride in accomplishment, moral responsibility, and cooperative participation with agemates" (p. 330). According to Berk, students can possess either mastery-oriented attributions (accrediting success to ability) or learned helplessness (accrediting failure to ability). While mastery-oriented students are able to persevere on a task whether they succeed or fail, students who have developed learned helplessness become anxious when a task is difficult and give up without trying. Teachers have the ability to influence these achievement related attributions.

According to the United States Department of Education (USDE), only 73 percent of students graduate from high school (Barile, Donohue, Anthony, Baker, Weaver, & Henrich, 2012). While a positive teacher-student relationship may not always contribute to higher academic achievement, it may help prevent students from dropping out of school. For instance, "...if students get along with teachers, think that the teaching is good, and believe their teachers are interested in them, they may remain in school, even if struggling academically, simply because of their positive relationships with their teachers" (p. 264). In addition, research findings indicate that teacher-student relationships have the power to close or widen the achievement gap between risk and non-risk students (Spilt et al., 2012). Student outcomes ultimately are influenced by both home and school factors. While teachers do not have full control over a student's circumstances, a positive teacher-student relationship and supportive classroom climate can help mitigate academic and life stressors.

Summary

This literature review has discussed how to create a positive classroom environment, the effect of a positive classroom climate on academic achievement, how to develop teacher social-emotional competence, and the importance of teacher support and positive teacher-student relationships. Research cited in the review reflects a positive relationship between a safe, supportive classroom climate with teacher support and student engagement and achievement. With the implementation of Common Core State Standards came higher expectations and more challenging learning goals. According to Eccles & Roeser, as cited by Jennings & Greenberg (2009), this set of goals for American education is a tall order, and it is clear that a student's formal learning context is largely shaped by the student's teacher" (p. 491).

CHAPTER III

METHODS

The purpose of this study was to determine if building additional positive

relationships between teachers and students through the CICO intervention impacts

students' academic achievement as measured by the Scholastic Reading Inventory (SRI).

Design

This study incorporated a pre-experimental design similar to a pre-test post-test

design with non-equivalent groups. SRI Lexiles served as a pre- and post-test for both

the experimental and control group. The pre-test was utilized to determine that the

groups did not differ significantly on academic achievement prior to the intervention.

The independent variable was the application of the CICO intervention and the dependent

variable was the students' academic achievement as measure by SRI Lexiles.

Participants

The participants in this study were at-risk third, fourth, and fifth grade students

who attend a suburban elementary school in Maryland. This elementary school is a Title

I school with a 71.2 percent Free and Reduced Price Meals Program (FARMS) rate and a

94.9 percent attendance rate. About ten percent of students at the school receive special

education services. The school has a transient population, with a 19.7 percent mobility

rate. In addition, this elementary school is a PBIS gold award winning school where

CICO is the primary tier two intervention offered to support students who require

additional support.

Purposive sampling was used to select students to participate in this study.

Students who were identified by teachers as being at risk for increased behavioral issues

or academic failure qualified to participate in the CICO intervention. The researcher was able to utilize additional teacher input to create a comparable group of at-risk students to serve as a control. Participants in this study were not identified as emotionally disturbed nor did they have an individualized Behavior Intervention Plan (BIP). Each group of participants was comprised of four third grade students, five fourth grade students, and five fifth grade students. All but two participants assessed below grade level in the area of reading as measured by Fall 2017 SRI Lexiles.

The experimental group included ten boys and four girls. The experimental group was not randomly assigned to participate in this intervention. Students were selected in October 2017, after students had been in school for approximately a month and a half. This interval provided time for students to become acclimated with their new teachers and for behavior patterns to emerge. The students involved in the study were selected by classroom teachers with support and approval by school administration based on the severity of their behaviors and needs. Five students in the experimental group had participated in the program during the previous school year. At the end of that year's CICO program, teachers and administrators evaluated the effectiveness of the program based on student progress. Based on this evaluation, students were recommended either to continue or exit the program.

The control group included 12 boys and two girls. The students in the control group of this study were those nominated to participate in the intervention but were put on a wait list or were nominated after the first cycle of the intervention had begun. All but two students in the control group were already on the existing wait list to participate in the second cycle of the intervention. To balance participation in the experimental and

control groups, the researcher asked classroom teachers to identify one additional fourth grade student and one additional fifth grade student who would benefit from the CICO intervention. These selections were validated by administration in order to ensure that these students exhibited similar behavioral needs to those who were identified on the waitlist.

Instrument

The instrument utilized in this study was the Scholastic Reading Inventory (SRI). The SRI is a computer-adaptive assessment that assesses reading levels measured by Lexiles. The assessment includes short fiction, non-fiction and high-interest passages that do not require background knowledge or contain cultural bias. The SRI is formatted in a cloze format with four answer choices. According to Scholastic Inc. (2011), "This is considered an embedded completion item format, which has been shown to accurately measure the ability to draw inferences and establish logical connections between ideas" (p. 17). The students work completely independently on this assessment. Item difficulty automatically adjusts based on student responses; when the student answers correctly, the Lexile of the passage increases, whereas when the student answers incorrectly, the Lexile of the passage decreases. Once the student has answered enough questions to obtain an accurate Lexile, the test ends. The Lexile Framework includes two key components: Lexile text measure (text complexity based on word frequency and sentence length) and Lexile reader measure (the student's general reading comprehension level).

According to Scholastic Inc. (2011), "The SRI is a researched-based assessment that has been field-tested and validated to ensure that it is a reliable indicator of reading comprehension" (p. 16). A study conducted between the SRI and the Lexile Framework

utilizing a sample of 512, 224 students from a moderate size state established normative information. The SRI was evaluated to ensure content, construct, and criterion-related validity. First, content validity ensures the assessment contains a sample of important content related to what it is supposed to measure: The content includes three skills key to reading comprehension. These skills are identifying key details, drawing conclusions and making comparisons. Second, the SRI was analyzed for construct validity (ensuring the test measures the trait is it designed to measure) through examining developmental changes in test scores across grades and correlations with similar tests designed to measure reading comprehension. Finally, because the SRI directly correlates with multiple state assessments, it is considered to have criterion-related validity, meaning it provides an accurate prediction of the test-taker's behaviors and abilities.

A number called the standard error of measurement (SEM) monitors the reliability of the SRI. This provides information about how accurately the test has measured the student's reading ability. Since the SRI is a computer adaptive assessment, it relies on an algorithm to estimate the student's reading level. Scholastic notes that "The algorithm uses prior information about students' levels to control the selection of questions and the calculation of each student's reading ability after they respond to each question" (Scholastic Inc., 2011, p. 21). The reliability increases when both the grade and reading level of the student are known; however, the majority of test scores will likely include some degree of error.

Procedure

This study was completed from November 2017 to January 2018. Teachers and administrators identified participants in the experimental group as at risk for more intense problem behaviors and/or at risk for academic failure because of observed behavioral patterns. The CICO intervention is designed to provide additional structure, support, and feedback for at-risk students. The control group was established during the time the intervention was being conducted. As the intervention progressed, a wait list of students who were not receiving an official PBIS intervention developed. Student in the control group had similar at-risk characteristics to the experimental group.

The pre-test was administered to students in September 2017, before beginning the CICO intervention. The students' fall SRI scores served as the pre-test for this study. Prior to the intervention, the mean SRI Lexiles of the check-in/check-out group (Mean = 492.07, SD = 284.19) did not differ significantly from the control group (Mean = 446.57, SD = 291.26) [$t(26) = 0.42$, $p = 0.68$].

After pre-test data were collected and documented for the experimental group, the CICO intervention was implemented. The typical duration for the CICO intervention is eight to 12 weeks. The experimental group received the intervention across nine weeks from November 2017 to January 2018. The only times the intervention did not occur were on days where the school was closed due to a holiday or inclement weather.

During the time this study was conducted, the CICO intervention was offered as a tier two PBIS intervention for students who were not responding to school-wide tier one supports. Teachers served as mentors in the CICO program on a volunteer basis and selected their mentees based on a pre-existing positive relationship. Some mentors taught

participants in previous years, while others established a relationship through passing interactions. Students checked in with their mentors at the beginning of the school day for approximately five to seven minutes during which time they set goals and decided on a reward. Mentors greeted the student, assessed the student's attitude towards the day, and helped ensure the student was prepared by providing reminders of appropriate behavior and expectations. The behavior report cards utilized to monitor student behavior throughout the intervention included student-specific goals that are designed to replace undesired behaviors with replacement behaviors and skills. Examples of targeted behaviors/skills include disruption, disrespect, organization, work completion, and impulsivity. Throughout the day during the intervention period, teachers provided feedback to the students and tracked student progress towards engaging in desired behaviors. At the end of each day, students checked out with their mentors before leaving for home. Mentors reviewed the student's points and goals, acknowledged their successes, and provided additional encouragement. At the time of the intervention, the school was not implementing the home-school communication component of the CICO program.

As part of the study, mentors were asked to complete a feedback survey at the end of the CICO intervention. Through this survey, teachers communicated student progress as well as reasons for possible continuation in or exit from the program. Feedback provided through this survey was utilized to determine whether students would be dismissed from the intervention or participate in a second intervention cycle.

At the end of the intervention period, students were assessed again using the SRI in January 2018. Student Lexiles from the control and experimental groups were compared using an independent sample t-test.

CHAPTER IV

RESULTS

This study examined academic achievement (as measured by SRI Lexiles) of at-risk third through fifth grade students who participated in the CICO intervention and a similar group of at-risk students who did not receive the intervention. The nine-week CICO intervention consisted of checking in with a mentor teacher before school to be greeted and set goals for the day and checking out with a mentor teacher at the end of the day to celebrate successes and receive additional encouragement.

Following the intervention, the mean SRI Lexiles of the check-in/check-out group (Mean = 575.36, SD = 267.75) did not differ significantly from that of the control group (Mean = 468.43, SD = 290.06) [$t(26) = 1.01$, $p = 0.32$] (see Table 1). Therefore, the null hypothesis that there would be no significant statistical differences between the SRI Lexiles of at-risk elementary school students who participate in a check-in check-out intervention and a control group of at-risk students failed to be rejected.

Table 1

Means, Standard Deviations, and t-test Results for SRI Lexiles of the Check-In Check-Out Group and the Control Group After the Intervention

Group	N	Mean	Std. Deviation	*t*-statistic
Check-in Check-out	14	575.36	267.75	1.01 (NS)
Control	14	468.43	290.06	

NS= non-significant at p < .05

CHAPTER V

DISCUSSION

The purpose of this study was to examine the effect of intentionally provided positive teacher-student relationships on students' academic achievement. The researcher sought to answer the question of whether establishing and maintaining an additional positive relationship through the CICO intervention would affect students' academic performance as measured by SRI Lexiles. The null hypothesis that there would be no significant statistical differences between the SRI Lexiles of at-risk elementary school students who participate in a CICO intervention and a control group of at-risk students failed to be rejected.

Implications of Results

According to the results of the study, there is not significant evidence to support that the CICO intervention is effective in improving students' academic performance. However, though the researcher's primary interpretation is that there is not statistically significant evidence that the intervention was effective in improving academic achievement of students in the experimental group relative to a control group, the researcher collected qualitative data to support the positive effects of the intervention on student attitudes and behavior.

Teacher feedback is a standard and valuable component of the CICO process. At the end of each intervention cycle, mentors and classroom teachers are asked to complete a CICO Renewal/Dismissal Form on which they describe any progress made while participating in the program. Mentors also are asked to provide a recommendation for continuation or exit with reasons to support their recommendation. This qualitative

feedback supports the claim by Jennings and Greenberg (2009) stating that schools need interventions that help teachers develop positive relationships with students that will in turn promote student engagement and connectedness. For example, one mentor who participated in the study noted that her mentee was able to remain engaged and on track for the day when he met with her in the morning. On the other hand, a classroom teacher of a participant stated that on days her student did not check in with his mentor, he reverted back to engaging in inappropriate and disruptive behaviors. Several mentors noted that students were not checking in on a regular basis. In some cases, the inconsistency was due to chronic absences.

In addition, according to mentor feedback, all but one student who participated in the program benefitted from the additional supportive adult relationship, constructive feedback, and positive attention. Mentors reported that students who participated in the program made progress in the areas of demonstrating respect, following directions, completing assignments, making smart choices, increasing confidence, increasing academic efforts, and demonstrating a determination to meet goals. Students who met the criteria for exit demonstrated consistent success in meeting daily goals and an increase in confidence and independence regarding academic efforts and behavioral choices. Students recommended for continuation in the program demonstrated a need for consistent support and feedback in order to maintain behavioral improvements and progress.

There are trends in the data to support the observational information indicating that participation in the CICO helps aid students in academic skill development. While the mean score of the experimental group was higher prior to the intervention, the gap in

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achievement grew larger after the intervention was completed. While the scores did not differ at a statistically significant level, they demonstrate the potential for the intervention to increase academic achievement.

In terms of its application, this intervention can be moderately difficult to implement with consistency and fidelity. CICO requires minimal training for teachers who work in a PBIS school, as this is an extension of tier one best practices designed to support students through positive relationships, feedback, and reinforcements. However, this intervention requires structure and routine in order to implement it with fidelity and maximize its effectiveness. Students and teachers must be able to make adequate time to meet and confer at the beginning and end of each day. Another constraint of the CICO intervention is that the program can accommodate only as many students as there are volunteers willing to act as mentors. Depending on the number of teachers available, this factor can decrease the reach of the intervention in a significant manner. Based on trends in the statistical and qualitative data, CICO has the potential to be a worthwhile intervention, provided that the teachers and students meet consistently.

Theoretical Consequences

Although the results did not demonstrate statistical significance, trends in the qualitative data provide support for establishing additional positive teacher-student relationships. Through CICO, mentors were able to affect children's attributions to support a sense of industry. If the students did not meet their goal for the day, the mentor would not attribute it to a lack of ability, but instead to a lack of effort: with increased effort, goals can be met on a consistent basis. Through reflection and discussion, the mentors provided support through continued feedback within a caring and helpful

context. According to Berk (2014), "An intervention called attribution retraining encourages learned-helpless children to believe that they can overcome failure by exerting more effort" (p. 334). CICO operates on a similar principle: students who are at-risk for increased behavioral issues or academic failure will benefit from repeated feedback and encouragement to help them revise their attribution coupled with positive reinforcement when goals are met. Mentors reported that as the students mastered their goals, they demonstrated increased confidence in their abilities and developed a new sense of independence. In addition, CICO provides additional positive relationships with teachers so that students feel more secure in their learning environment; therefore, they are more willing to meet behavioral expectations and exert more academic effort.

Threats to Validity

There are multiple threats to validity within this study. First, the sample size was small, therefore reducing the power to find group differences. In addition, the subjects were not randomly assigned to groups. This study included a differential selection of participants. Although the experimental and control groups were similar in terms of characteristics and achievement, there were differences in that one group of students was given priority to participate in the intervention over students in the other group. For one reason or another, teachers and administrators determined that these students were more at risk for increased behavioral issues or academic failure than the other students. These differences likely could have affected results of the study. This nonrandom selection of participants greatly limits the generalizability of the study.

Another threat to the validity of the study was student attendance. Seven out of the 14 mentors of students in the program noted issues with students consistently

checking in. For two students, absences were beyond their control and attributed to illness or home issues; however, the other five students simply did not check in on a routine basis.

Furthermore, these results cannot be generalized beyond the narrow scope of the study. The participants in this study were general education students in grades three through five. It is also important to note that the school at which this study took place is a Title I, PBIS school. Duplicating this intervention in a different setting likely would yield different results. In a setting where the school does not implement school-wide PBIS, teachers likely are unfamiliar with the tiered supports provided through this program. Without established tier one supports and school-wide expectations, the school will need to establish a baseline of behavioral expectations before implementing a targeted tier two support such as CICO. Teachers would also require detailed training before implementing a new initiative.

Additionally, the only measure of achievement in this study was academic achievement as measured by SRI Lexiles. Because this measure is based on a specific reading test that is completed independently, the researcher cannot generalize the results of this study to other aspects of classroom/academic performance such as attention and work completion.

Connections to Previous Studies

A study conducted by Campbell and Anderson (2011) examined the effects of teacher feedback provided through the CICO intervention. The researchers collected data regarding occurrences of "problem behavior, academic engagement, and the percentage of points earned" (p. 319). Campbell and Anderson further defined problem behavior as

disruption, out of seat or location, noncompliance, and negative verbal or physical interactions. "Academic engagement was defined as following teacher requests within 10 seconds, having eyes oriented toward teacher or relevant materials for the task, and working on in-class assignments (p. 319). During the baseline, teachers conducted class and managed student behavior according to their typical practices. Students received instruction regarding the CICO routine as well as examples and non-examples of expected behaviors. They also were given time to practice engaging in the CICO routine. During the intervention, students checked in each morning with the CICO coordinator, engaged in feedback sessions throughout the day with their classroom teacher, checked out each afternoon with the CICO coordinator, and took a feedback report home at the end of each day. The results indicated that the implementation of CICO resulted in increased academic engagement for all participants. Additionally, this study supports previous findings by March & Horner and McIntosh stating that CICO is effective for students who are motivated by increased adult attention but ineffective for those students who are motivated by escape or avoidance of academic assignments (as cited by Campbell & Anderson, 2011).

Although the studies cited above cannot be directly compared due to differences in the dependent variables, there are various connections that can be made. Similar to the Campbell and Anderson (2011) study, this study sought to analyze the effect of teacher feedback provided through CICO; however, the focus of this study was extremely narrow in that it focused solely on academic achievement as defined by SRI Lexiles provided by one assessment. While this study failed to examine other aspects that contribute to academic performance such as following directions, remaining focused and on task, and

completing assignments, this study did produce qualitative feedback that matches the findings by Campbell and Anderson. In place of a CICO coordinator, this study employed teacher volunteers to serve as CICO mentors: individuals in both roles served a similar purpose- to reflect with the student, celebrate successes, set goals, and provide encouragement. In both studies, students received feedback from their classroom teachers throughout the day as the CICO forms were completed.

Additionally, both studies were conducted within the context of similar school populations. Both schools were elementary schools with an established school-wide PBIS program and 70 percent or more students receiving free or reduced lunches. While Campbell and Anderson's (2011) participants included four purposively selected students, this study utilized a purposive sample of 28 students ranging from grades three to five. In both studies, participants were selected based on factors along with teacher nomination and feedback.

Implications for Future Research

Future research related to ways in which teacher-student relationships can improve student achievement might address threats to validity identified in the current study. For example, future research should include more participants and the participants should be randomly assigned to the control and experimental groups. Such design considerations would eliminate potential issues such as the effect of having students in each group with either particularly high or low academic achievement. A broader, more representative population would limit the impact on study results of participants who may over or underachieve. Random group assignment also would control for any pre-existing differences in at-risk characteristics.

Additionally, future research could build on elements of this study by selecting students from different referral subgroups. By comparing the impact of CICO on different groups of students, the researcher could determine if there is a difference in the effect on students who are disruptive or noncompliant. There are various functions to student misbehavior such as gaining power or control, obtaining attention, exacting revenge, and avoiding work or potential failure. It would be beneficial to compare subgroups of students with different functions for misbehavior in order to target the students who would benefit most from the CICO intervention.

Furthermore, future research should consider adding an aspect to the intervention that would increase consistency in students visiting their mentors. Half of the mentors of students participating in the intervention identified student attendance as an issue that may have hindered student progress in the program. Future researchers should consider tracking student attendance at their daily check in and check out meetings. A study designed to compare students who consistently met with their mentors and those who did not consistently meet with their mentors may help the researcher identify the impact of student attendance on the effectiveness of the CICO intervention. There may be differences in the behaviors and academic engagement of students who regularly meet with their mentors in the morning and afternoon, students who only meet with mentors once per day, and students who avoid meeting with their mentors. It is important to note reasons for gaps in student attendance. For example, researchers might examine if students are present at school and avoiding meeting with their mentors or if the students have chronic absences from school due to extenuating circumstances such as illness or home concerns.

Because academic performance involves more than just achievement, it would be valuable to explore the effect of the intervention on additional elements such as the frequency of problem behaviors and facets of academic engagement such as attention, following directions, and effort. In addition, it may be helpful to explore the possibility of the intervention having an indirect influence on academics because students who have a stronger positive relationship may demonstrate increased academic effort and engagement.

Summary/Conclusion

In summary, creating a positive classroom climate and providing effective teacher support through positive teacher-student relationships are essential components in meeting the academic, social, and emotional needs of students. This study examined the effect of an additional positive teacher-student relationship provided through the CICO intervention on academic achievement as measured by SRI Lexiles. The intervention used in this study is a common tier two intervention that is implemented in PBIS schools to support students who do not respond to tier one supports and are at risk for increased misbehavior or academic failure.

The results of this study combined with previous research suggest that CICO has the potential to impact academic achievement through increased engagement and motivation. According to qualitative data, all but one student benefitted from the additional positive attention and support provided through the CICO program. Mentors noted that students who participated in the program demonstrated respectful attitudes more frequently, followed directions given more often, completed more of their assignments, made smarter choices regarding their behavior, displayed increased

confidence, increased their academic efforts, and demonstrated a determination to meet their goals. Therefore, it is reasonable to assume that, while there was not statistically significant data, the CICO intervention has the potential to positively impact academic engagement and achievement. When students feel supported by their teachers and other adults, they may likely become more motivated to succeed.

References

Barile, J. P., Donohue, D. K., Anthony, E. R., Baker, A. M., Weaver, S. R., & Henrich, C. C. (2012). Teacher-student relationship climate and school outcomes: Implications for educational policy initiatives. *Journal of Youth and Adolescence, 41*(3), 256-267. http://doi.org/10.1007/s10964-011-9652-8

Berk, L. E. (2014). *Development through the lifespan*. Upper Saddle River, NJ: Pearson Education, Inc.

Brackett, M. A., Reyes, M. R., Rivers, S. E., Elbertson, N. A., & Salovey, P. (2011). Classroom emotional climate, teacher affiliation, and student conduct. *The Journal of Classroom Interaction, 46*(1), 27-36. Retrieved from http://search.proquest.com.goucher.idm.oclc.org/education/docview/915267885/E73431539F624ABCPQ/1?accountid=11164

Caldarella, P., Shatzer, R. H., Gray, K. M., Young, K. R., & Young, E. L. (2011). The effects of school-wide positive behavior support on middle school climate and student outcomes. *Research in Middle Level Education Online, 35*(4), 1-14. Retrieved from http://search.proquest.com.goucher.idm.oclc.org/education/docview/928761235/abstract/66C187B2A5B14880PQ/6

Campbell, A., & Anderson, C. M. (2011). Check-in check-out: A systematic evaluation and component analysis. *Journal of Applied Behavior Analysis, 44*(2), 315-26. http://doi.org/10.1901/jaba.2011.44-315

Dotterer, A. M., & Lowe, K. (2011). Classroom context, school engagement, and academic achievement in early adolescence. *Journal of Youth and Adolescence, 40*(12), 1649-1660. http://doi.org/10.1007/s10964-011-9647-5

Evertson, C.M., & Poole, I.R. (2008). Chapter 14: Proactive Classroom Management. In *21ˢᵗ century education: A reference handbook.* Retrieved from

http://doi.org/10.4135/9781412964012.n14

Jennings, P. A., & Greenberg, M. T. (2009). The prosocial classroom: Teacher social and emotional competence in relation to student and classroom outcomes. *Review of Educational Research, 79*(1), 491-525. http://doi.org/10.3102/0034654308325693

Klem, A. M., & Connell, J. P. (2004). Relationships matter: Linking teacher support to student engagement and achievement. *The Journal of School Health, 74*(7), 262-273. Retrieved from https://goucher.idm.oclc.org/login?url=http://search. proquest.com/docview/215675398?accountid=11164

LaRocque, M. (2008). Assessing perceptions of the environment in elementary classrooms: The link with achievement. *Educational Psychology In Practice*, *24*(4), 289-305. http://doi.org/10.1080/02667360802488732

Scholastic, Inc. (2011). *Scholastic reading inventory educator's guide: An overview of SRI software and teacher support*. Retrieved from http://52.1.239.6/product-support/content/techsupport/sri/manuals/SRI_Educators_Guide.pdf

Spilt, J. L., Hughes, J. N., Wu, J., & Kwok, O. (2012). Dynamics of teacher-student relationships: Stability and change across elementary school and the influence on children's academic success. *Child Development*, *83*(4), 1180-1195. http://doi.org/10.1111/j.1467-8624.2012.01761.x

Sulak, T. N. (2016). School climate and academic achievement in suburban schools. *Education & Urban Society, 48*(7), 672-684. http://doi.org/10.1177/0013124514541465

Todd, A. W., Campbell, A. L., Meyer, G. G., & Horner, R. H. (2008). The effects of a

  targeted intervention to reduce problem behaviors: Elementary school

  implementation of check in-check out. *Journal of Positive Behavior*

  Interventions, 10(1), 46-55. http://doi.org/10.1177/1098300707311369

Toste, J. R., Heath, N. L., & Dallaire, L. (2010). Perceptions of classroom working

  alliance and student performance. *The Alberta Journal of Educational Research,*

  56(4), 371-387. Retrieved from https://goucher.idm.oclc.org/login?url=http://

  search.proquest.com/docview/1544870582?accountid=11164