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The Relationship Between Positive Academic and Behavior Support Services: School Failure Prevention-Plan

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Walden University

College of Social and Behavioral Sciences

This is to certify that the doctoral dissertation by

Tu`Jaim M. Berry

has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

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Walden University
2018

Abstract

The Relationship Between Positive Academic and Behavior Support Services: School Failure Prevention-Plan

by

Tu`Jaim M. Berry

MA, Grand Canyon University, 2008

BS, Berkeley College, 2000

AAS, Berkeley College, 1998

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

School Psychology

Walden University

August 2018

Abstract

Urban middle school students experience poor self-efficacy and poor attitudes toward school climates after being retained. Previous research has indicated that grade-level retention in primary and secondary education might cause long-term achievement gaps, school failure, and high school dropout rates. However, current research has yet to examine relationships between archival data retrieved on retained middle school students' achievement outcomes and perceptions of school climate. The purpose of this nonexperimental, quantitative study was to assess the relationships between retained middle school students' self-efficacy as measured by the School Climate Survey and their performance outcomes as measured by PowerSchool®. Bandura's theory of self-efficacy maintains that an individual must have the belief, motivation, determination, and drive to persevere when challenged. The archival data were collected from 1 northeastern urban middle school in the United States representing underachieving participants ($N = 45$) enrolled in the Postive Academic and Behavioral Support Program during the academic school years of 2017 and 2018. Population groups of female and male students ranged in age between 11–14 years old. A repeated measure design analyzed the same participants over a 6-month period by measuring archival data on achievement outcomes from GPAs, attendance, and demographics (sex and age). Results showed significant increases in GPAs and significant increases in males' positive perceptions of school over the school years of 2017 and 2018. The results of this study can be used to promote positive social change for education professionals working in urban school districts providing support services to at-risk students facing school failure.

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Dedication

I dedicate this project to my grandparents/caregivers, Mary L. Berry, Carrie Mae Newkirk, and Jacob Newkirk, for their unconditional love, patience, guidance, support, encouragement, and their relentless commitment to push to me to reach for the stars. I would also like to dedicate this project to my loving and patient children, Carl Driver Jr., Mi`Jaut Berry, Ta`Jeamah Anderson, Ta`Jeam Anderson, and my Godchildren, Aiyari and Tylonda, for their help, hugs, and belief in me to accomplish this goal.

I would like to also, dedicate this project to my rocks and village of support, Dr. R. Berry-James, S. Berry, L. Coleman, B. Williams-Pullen, T. Jones, R. McKinney Jr., C. McKinney, and Dr. M. Alfone. Also, D. Anderson, R. Rainey, C. Ford, M. Harper, L.Demery, V. Barone, V. Coley, T. Cooper, S. Armour, C. Sanders, and B. Barnes; you were all instrumental in helping reach this milestone.

Finally, I would like to dedicate this project to my seventh and ninth grade teacher, Dr. J. K. Flanagan, who pushed me to write and also knew that I would write something great one day. Lastly, however, not least by no means, I would like to dedicate this project to my mentor and supervisor, Dr. M. R. DeSantis, for seeing me through my dissertation. Also, her words of encouragement, helping me to think about my study differently, driving me to persevere through challenges, and providing the emotional support of making me believe that I have the ability execute this task.

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Chapter 1: Introduction to the Study

Introduction

Grade-level retention can result in many sociological problems across the lifespan of a student when he or she does not receive prosocial support (Marsh, 2016; Mellard, Frey, & Woods, 2012; Nocera, Whitbread, & Nocera, 2014). According to Vandecandelaere, Schmitt, Vanlaar, De Fraine, and Van Damme (2016), psychologists often describe the effects that grade-level retention can potentially have on the psychosocial development of students. Demographically, the U.S. Department of Commerce (2012b) reported that over a million students attending public schools in the United States encounter grade-level retention by at least one grade level. For instance, in 2013, it was estimated that 55.4 million students enrolled in U.S. public school systems in Grades K–12, and that, of those students, 2.2% would encounter grade-level retention that academic year (U.S. Department of Commerce, 2012a).

Researchers have found associations between grade-level retention in high school students and increased incidences of negative views of themselves (Gewertz, 2012). Within the findings were student self-images with poor attitudes toward school, poor academic achievement, poor attendance, and increased dropout rates (Gewertz, 2012; Meadan, Ayvazo, & Ostrosky, 2016; Shippen, Patterson, Green, & Smitherman, 2012). However, prior research has not substantiated any relationships between secondary data on low-performing middle school students' efficacy and their perceptions toward school climates when comparing grades, attendance, and demographics (sex and age). Several studies have focused on school-based protocols to change student achievement outcomes.

For example, researchers have found positive effects in remediating academic deficits through response to intervention (RTI), and school-wide positive behavior support (Feuerborn & Chinn, 2012; Griggs, Rimm-Kaufman, & Merritt, 2013; Saeki et al., 2011; Sosa & McGrath, 2013).

In this chapter, I will present a discussion on the psychological and sociological problems associated with retained middle school students, the purpose of the study, the background information, research questions, and an introduction into the hypothesis. Additionally, an introduction to the theoretical basis for the study with a focus on the theoretical foundations of self-efficacy. This chapter will also include the operational definitions used throughout the study; the assumptions, scope, delimitations, and limitations; and the significance of the study.

Background of the Study

Self-Efficacy and Academic Self-Concept

A student's perception of self when failing can interfere with their self-efficacy and negatively impact their academic development and social development when retained, leaving them to believe that they lack the capabilities needed to perform tasks and persevere through challenges (Bandura, 1997). A review of literature from the last 30 years indicated that retaining students is a traditional practice used in numerous classrooms by teachers in the United States (Lamote, Pinxten, Van Den Noortgate, & Van Damme 2014). A pivotal time in the retained adolescent student's life is when the sources of self-efficacy are low, resulting from a limited mastery of experiences, negative

social persuasion, limited vicarious experiences, and limited psychological mindset (Bandura, 2000).

A person's self-efficacy holds many sources and shapes such as self-image, self-concept, self-management, self-regulation, and self-development (Bandura, 2007). In previous literature, researchers have recommended that future research examine relationships between retained male and female middle school students in later grades and the relationships found in students with lower perceptions of their academic self-concept and achievement outcomes (Lamote et al., 2014). A definition of the School Climate Survey (SCS) notes that it is an assessment scale used to assess the development of a student's perception of themselves(Konold et al., 2014). Therefore, it is recommended for scholars' to use, sociological and psychological instruments such as the SCS to measure the perception of middle school and high school students academic self-view of school environments (Van Dinther, Dochy, Segers, & Braeken 2014).

Researchers have noted that a student's perceptual efficacy towards school social support (e.g., the morale of school environment, teacher support, and parent support) arrives from learning, achievement, and social development experiences (Konold et al., 2014). Low-performing students experience grade-level retention when they fall short in classrooms (Harklau, 2013). Often, teachers will make recommendations for students to be held back when they fail to make sufficient progress during marking periods on standardized tests, fail to master a certain quota of literacy skills, or fail to show growth in social development (Levine & Levine, 2012; Peterson & Hughes, 2011). However, extant research has not evaluated the relationships between low-performing middle

school students' responses as measured by SCS and the prosocial support they receive from educational professionals to reduce the need for retention when exploring achievement over a time span (Konold et al., 2014).

Grade Point Average and Achievement

Achievement and low achievement has been defined through a rating system that uses a weighted scale ranging from 0.000–4.000 to compute scores to generate a student's grade point average (GPA; Warne, Nagaishi, Slade, Hermesmeyer, & Peck, 2014). Researchers have reported that low-performing middle school students with a low GPA are at risk for developing the socio-emotional problems of poor self-efficacy and poor attitudes toward school climates (Braun, Gable, Billups, Vieira, & Blasczak, 2016; Haselden, Sanders, and Sturkie, 2012; Kirk et al., 2016). When deciding to retain low-performing male and female students, the initial goal of classroom teachers is to remediate academic problems by closing achievement gaps through allowing low-performing students more time to develop academic skills (Konold et al., 2014). Researchers have disputed this claim, noting that when analyzing data on retained male and female students for academic growth, adverse effects were shown in the area of academic gains over a time span in achievement (Lamote et al., 2014).

National research has shown that at least 10% of low-performing male and female students have been retained throughout K–eighth grades because they failed to meet grade-level expectations (Peterson & Hughes, 2011). The transition into middle school can be difficult for students, especially when they are failing; however, transition into high school and failing can contribute to increases in high school dropout rates (Andrews

& Bishop, 2012). Research conducted by, Bornsheuer, Polonyi, Andrews, Fore, and Onwuegbuzie (2011) reported that over 1.3 million failing students around the country have dropped out by the ninth grade. For instance, several studies have shown associations between grade-level retention increasing the chances of retained students exhibiting academic failures, multiple discipline referrals, and dropping out of school (Braun et al., 2016; Meadan et al., 2016).

Absenteeism in Retained Students

School districts define *student attendance* as a schedule of calendar days students are required to attend throughout a school year (SY), whereas *absenteeism* is a term used for students who miss a substantial amount of school days throughout an academic year (Reid, 2012). When underachieving urban middle school students are failing, they often lose self-interest in school, which increases their chances of absenteeism and high school dropout rates (Birioukov, 2016). Similarly, when observing absenteeism in low-achieving students, Reid (2012) reported that such students held the behavioral traits of poor academic self-concepts, poor self-directedness, poor-regard, and low self-esteem. Also, to substantiate their findings, researchers have explored student responses for the causes of absenteeism, reporting high levels of feeling too distressed to cope with school expectations and a dislike of many aspects of classroom rigor (Attwood & Croll, 2015).

In endorsing such psychosocial issues, Birioukov (2016); Gottfried (2012); Grigg (2012); and Kirk, Lewis, Brown, Karibo, and Park (2016) studied student behaviors of absenteeism and high levels of dissatisfaction with school expectations, classrooms disruptions that lead to suspension, student transients, low-parental support, and student

illnesses. Preventively, Reid (2012) suggested that future research is needed to explore relationships between school-student liaisons and attendance and graduation outcomes of low-performing students. Consequently, when low-performing students experience negative social interactions with teachers and peers within the classroom, researchers have found decreases in academically productive habits and increases in challenging behaviors, and therefore, increasing chances of absenteeism and retention (Meadan et al., 2016).

Demographical Characteristics of Retained Students

In social psychology, theorists studying the ramifications of retaining elementary school students or intermediate age students noted the long-lasting effects it has on students' self-concept and self-efficacy (Lamote et al., 2014). To date, research has highlighted the relationships between high school students' self-efficacy and perceptions toward school climates when comparing behaviors, achievement, and demographics over a time span (Kirk et al., 2016; Mallett, 2014; Semke & Sheridan, 2012). However, researchers have not exclusively analyzed the relationships between retained middle school students' self-efficacy and attitudes toward school climates and their achievement and attendance outcomes over a time span. In this study, I used archival data on low-performing middle school students to examine the relationships between self-efficacy and performance. In this study, I expanded on the findings of literature focused on preventative practices of prosocial school support and research designed to reduce adverse outcomes of at-risk students' experiences of grade-level retention (see Meadan et al., 2016).

Problem Statement

Academically, behavioral traits of low achievement found in students receiving grade-level retention lead to the students ranking lower in GPAs annually and being identified as lacking academic achievement skills that prepare them for future courses (Lamote et al., 2014). A review of gaps in the literature highlighted the need to examine relationships between archival data collected on the most vulnerable population of low-performing or retained urban middle school students because most researchers have studied low-performing or retained high school students in danger of adverse outcomes (Appelrouth, Zabrucky, & Moore, 2017). In theory, Bandura (1997) posited that an adolescent with low self-efficacy in their capabilities often experiences self-doubt when required to perform difficult tasks. Subsequently, many researchers have found evidence showing increased levels of low self-efficacy and low achievement outcomes in high school students after receiving grade-level retention, also noting an increased chance for such students to dropout high school (Ferrara, 2015; Gewertz, 2012; Lane, Oakes, Ennis, & Hirsch, 2014; Moran, 2013; Song, Bong, Lee, & Kim, 2015). However, within those findings, the researchers did not focus on archival data used to track outcomes found in low-performing middle school students' efficacy and achievement outcomes. Researchers have noted that future research needs to focus on prosocial support and support services (Braun et al., 2016; Demanet & Van Houtte, 2013; Edgar-Smith & Palmer, 2015; Orange & Ramalho 2013; Shippen et al., 2012; Song et al., 2015; Wilson, 2014). School-based interventions have been found to reduce retention rates found in low-achieving students

(Braun et al., 2016; Demanet & Van Houtte, 2013; Edgar-Smith & Palmer, 2015; Orange & Ramalho 2013; Shippen et al., 2012; Song et al., 2015; Wilson, 2014).

Behaviorally, at-risk students absent from classroom instruction can encounter unforeseen achievements gaps that cause such students to engage in behavior disruptions to escape classroom challenges. In a longitudinal study, Braun et al. (2016) found that 143 retained students in Grades 7–9, at risk of dropping out of high school were provided a tertiary intervention of social promotion. Braun et al. reported that 47% of retained students were socially promoted, eventually graduated high school. Researchers have found relationships between a student's disruptions and absenteeism from classroom lessons increased the chances of achievement gaps and school failure (Isaacson, 2016). Birioukov (2016) noted that involuntary absenteeism could arise from circumstances that are out of a student's control. Researchers have found that a significant relationship exists between learning deficits and criminal behavior in individuals who have contact with the juvenile justice system (Isaacson, 2016). For example, nationally, 342,000 adolescents were swept into juvenile detention centers, and of those detainees, approximately 35% were identified as adolescents with learning disabilities and learning deficits (Andrews & Bishop, 2012; Mallett, 2014; Song et al., 2015; Wilson, 2014). However, research has yet to show the significance of tertiary academic and behavior support services provided to retained intermediate school students at risk for the school-to-prison-pipeline (Andrewartha & Harvey, 2014; Gottfried, 2012; Heilbrun, Cornell, & Lovegrove, 2015; Lane et al., 2014; Skiba, Arredondo, & Williams, 2014). Not addressing this gap in the literature might result in school-based interventions being unimplemented as an option to

track the relationships found in middle school students at risk for a lower self-efficacy and lower achievement outcomes (Appelrouth et al., 2017).

Purpose of the Study

The purpose of this quantitative study was to compare relationships between archival datasets from the SCS and PowerSchool® (PS) records on urban middle school students enrolled in the positive academic and behavior support services (PABSS) program during the SY 2017 and SY 2018. The implications of school-based interventions have been extensively studied in regards to improving the outcomes of population groups of low-achieving and retained high school students; however, school-based interventions remain an area of interest regarding the improvement of outcomes for vulnerable population groups of low-performing or retained middle school students.

With this study, I intended to determine if there was a significant change in middle school students' self-efficacy and perceptions toward school climates, as measured by the SCS (the dependent variable [DV]), amongst the independent variables (IVs) of middle school students' GPA and attendance, as measured by the PS® records. Moreover, the personal demographic characteristic information of participants was used to measure the effects of the moderating variables (MVs) to examine for significant differences between archival data on age and sex (gender) to gain more understanding about the participants. My overall intention was to offer insights and awareness to school psychologists in the educational and clinical practice who encounter significant school-based issues from groups of low-achieving and retained middle school students found to

experience lower academic self-concept as well as to expand on the theoretical framework of this study.

Research Questions and Hypothesis

I developed the following research questions and hypotheses to guide this study:

RQ1: Is there a significant difference between SY 2017 and SY 2018 on the GPA outcomes of middle school students enrolled in the PABSS program, as measured by PS® records, and change in self-efficacy and perceptions toward school climates, as measured by SCS?

$H_0$1: There is no significant difference between SY 2017 and SY 2018 on middle school students' GPA outcomes, as measured by PS® records, and students' change in self-efficacy and perception toward school climates, as measured by SCS.

H_a1: There is a significant difference between SY 2017 and SY 2018 on middle school students' GPA outcomes, as measured by PS® records, and students' change in self-efficacy and perception toward school climates, as measured by SCS.

RQ2: Is there a significant difference between the SY 2017 and SY 2018 attendance outcomes of middle school students enrolled in the PABSS program, as measured by PS® records, and change in self-efficacy and perceptions toward school climates, as measured by SCS?

$H_0$2: There is no significant difference between the SY 2017 and SY 2018 middle school student attendance outcomes, as measured by PS® records,

and students' change in self-efficacy and perception toward school climates, as measured by SCS.

H_a2: There is a significant difference between the SY 2017 and SY 2018 middle school student attendance outcomes, as measured by PS® records, and students' change in self-efficacy and perception toward school climates, as measured by SCS.

RQ3: Is there a significant association between middle school students' age with a change in self-efficacy and perceptions toward school climates, as measured by SCS between SY 2017 and SY 2018?

H_03: There is no significant association between middle school students' age and a change in self-efficacy and perception toward school climates, as measured by SCS between SY 2017 and SY 2018.

H_a3: There is a significant association between middle school students' age and a change in self-efficacy and perception toward school climates, as measured by SCS between SY 2017 and SY 2018.

RQ4: Is there a significant difference between female and male middle school students concerning a change in self-efficacy and perceptions toward school climates, as measured by SCS between SY 2017 and SY 2018?

H_04: There is no significant difference between in female and male middle school students concerning a change in self-efficacy and perception toward school climates, as measured by SCS between SY 2017 and SY 2018.

H_a4: There is a significant difference between female and male middle school students concerning a change in self-efficacy and perception toward school climates, as measured by SCS between SY 2017 and SY 2018.

Theoretical Framework for this Study

The theoretical framework for this study was Bandura's (1977) theory of self-efficacy, particularly the ideas on a student's perceived capabilities about their academic self-concept when low-performing or retained in middle school. Bandura developed the theory of self-efficacy in an attempt to explain how environmental influences play a pivotal role in students' learning and social development. Bandura believed that an individual could exude confidence and belief when they needed to access motivation to perform tasks, persevere under pressure, and use developmental self-regulation skills and emotional regulation to cope through the completion of stressful class work. The self-efficacy theory has been used to identify different experiences that can be responsible for shaping an individual's academic self-concept (Bandura, 2000). Student's academic self-concept of themselves can often hold positive or negative perceptual beliefs of themselves in their capabilities to self-regulate, self-evaluate, self-react, and self-rely as well as feelings of self-doubt and self-worth (Bandura, 2007).

A student's self-efficacy is contingent upon their self-belief; if a student believes a task is within their ability, they will exude confidence and will more likely be motivated to engage in the challenge of completing the task (Bandura, 2000). However, a student with negative self-efficacy can exhibit disinterest in class assignments, or if the work

triggers stress, the student will not cope well and may shut down mentally when called upon to perform (Bandura & Locke, 2003). One key concept of self-efficacy is the notion that students depend on role models within their social setting to instill academic values of learning and achievement (Bandura, 2007). In theory, Bandura (2000) found that four sources contribute to self-efficacy: (a) the mastery of experiences, (b) vicarious experiences, (c) verbal persuasion, and (d) physiological and emotional states.

Bandura's (2000) theory of sources of self-efficacy directly related to this study, since it explained how low self-efficacy could increase the risk of school failure and high dropout rates. Low achievement and grade-level retention can impact how students perceive themselves in the future. Repeated failures can trigger a lack of self-confidence and motivation, increase stress and anxiety levels, and cause poor inhibitory control levels (Bandura, 1997). Lack of support in social learning environments can lead to low achievement scores, low self-concepts, and low self-worth (Bandura, 2000). Influences from social support systems in a school can mold a student's self-efficacy in a positive way that builds a strong, capable, and confident student; however, lack of support can create students who are unsure of their capabilities to execute the tasks (Bandura & Locke, 2003).

Nature of the Study

In this quantitative, nonexperimental study and retrospective analysis, I used existing data from an urban middle school in the Northeastern part of the United States. Archival data were gathered throughout the school years of 2017–2018 on GPA and attendance, as measured by archived PS® records, and on self-efficacy and perceptions

toward school climates, as measured by SCS, from participants enrolled in the PABSS program. Moreover, the collection of data gathered on demographical characteristics of lower-performing and retained middle school student participants included the MVs of age and sex (gender), as measured by PS® records. The nonexperimental approach implemented was more suitable for this intent, seeing that the IVs were not able to be manipulated and were controlled by the PS® records under a nonrandomized design. In kind, my use of a nonexperimental design served as a convenient method to study relationships from existing sample sets. I will provide a more detailed discussion of the research methods, psychometrics of the SCS and PS® records instruments, and nature of this study in Chapter 3. An ANOVA was used to analyze the collected data.

The variety of research questions and analytical phenomena within social sciences serve as examples to guide scholars-practitioners in selecting appropriate designs (Smolkowski & Cummings, 2015). Since I used retrospective data analysis in this study, the ability to assign groups randomly was not feasible, making the study design nonexperimental (see Green & Salkin, 2008). Nonexperimental approaches do not allow for reasonable control exerted over groups and they do not allow for causal inferences to be made (Ferreira & Gignoux, 2014). Moreover, each participant was part of the group before the research took place (see Green & Salkin, 2008). This retrospective data analysis represents characteristics seen in nonexperimental studies where independent or moderating variables cannot be manipulated or assigned such as the student participants' GPA, attendance, age, and gender. In this regard, existing datasets on student

participants were assessed through a nonmanipulated IV measurement (see Green & Salkin, 2008).

When taking into account the nature of the research questions and accessibility from the exportation of resources for research, I chose the exportation of the data collection of existing datasets via e-mail as a useful tool in addressing these queries, noting that the research topic and research questions might be sensitive. This allowed me a secure way of obtaining information on middle school students. The anonymity of secondary data offered unique safeguards by removing face-to-face contact with the students and giving them the ability to freely and honestly express themselves. The research questions warranted the examination of the IV of the PS® records by obtaining background information such as student's identified for receiving grade-level-retention and as low-performing students. Researchers sampling archival datasets have a unique way to gain access to student records and track lower-performing and retained student outcomes (Braun et al., 2016).

Operational Definitions

Absenteeism: Students who miss a significant amount of scheduled calendar days throughout a school year. Archival data has been observed in a substantial number of studies to measure relationships between school attendance and student outcomes (Birioukov, 2016).

Academic self-concept: The perception a student has of their unique attributes and how such attributes are a direct association with social relationships that are part of a student's immediate environment (Bandura, 2007).

Archival data tracking of grade point average/achievement: Cumulative records on student achievement, from GPAs of percentage scores ranging from 0–59 to 93–100 through a calculated weight scale using codes that range from 0.000–4.000 (Warne et al., 2014).

Archival demographic data: Data that are gathered and utilized on the student variables of gender (male/female) and age to predict students outcomes (Braun et al., 2016).

Perceptions toward school climates: School climate surveys are designed to assess a student's perception of his or her: (a) self-efficacy and (b) perceptions toward school environments (Konold et al., 2014; Lai, Stevens, Martinez, & Ye, 2015).

PowerSchool®: An education-web-based electronic technological term used in school districts to explain the procedure for storing students' archival records on grades, attendance, meal-plans, discipline, demographics, and schedules amongst education professionals and families (Porter, 2000).

Retention: An educational term for holding a student accountable to repeat the same grade when they fail to meet grade-level expectations due to attaining poor GPAs in common-core-curricular-contents. Retained students held low scores in criterion-based standardized tests and norm-referenced psycho-educational assessments and experience negative perceptions toward self-concept in school climates (Lamote et al., 2014).

Self-efficacy: An individual's cognitive ability to exude mental confidence, belief in them self to succeed, accomplish goals through motivation, and perseverance to execute the challenge of task required of them in specific social settings (Bandura, 1977).

Sources of self-efficacy: Four sources are involved in a person increasing a strong sense of them self: mastery of experiences, vicarious experiences, experiences of social persuasion, and a stable physiological and emotional state (Bandura, 2000).

Assumptions

In this research study, I assumed that the sample was representative of the larger population of interest based on available data from a pool of archival records (see Braun et al., 2016). Although the research questions presumed that changes in the DVs were related to changes in the IVs, it is possible that other contributing factors influenced the results reported here (see Creswell, 2009). The assumption in this case was that the archival data arriving from the middle school's web-based account truly represents student records on the SCS and PS®. Given this assumption about archival data, I cannot control for selection biases or confounding factors that might have contributed to the results of this study (see Ferreira & Gignoux, 2014). Furthermore, I cannot prevent selection and response biases found within the exportation process of data collected on responses from the SCS (see Creswell, 2009).

I also assumed that when analyzing self-reports of students' answers to questions on the SCS that they were a truthful and honest representation of their answers. Specifically, social desirability is a confounding factor that can have a significant impact on the way that self-report measures reflects completed responses (Tracey, 2016). Additionally, I made the statistical assumption that the SCS scale instrument would be used appropriately for measuring the dependent variables (see Smolkowski & Cummings, 2015). Since the groups compared arrived from school-based records, I assumed that any

variances found arrived from the IV. All assumptions are beneficial in nonexperimental studies where groups, or the IV, are already prepared for prior comparisons (see Creswell, 2009).

Scope and Delimitations

This scope of this study specifically looked at student participants at risk of being retained or already part of student grade-level retention (see Ferrara, 2015; Gewertz, 2012; Moran, 2013; Song et al., 2015). The transitional changes that underachieving students encounter can be irreparable when they receive grade-level retention, and as a result, poor self-efficacy and poor attitudes toward school climates arise (Lamote et al., 2014).The relationship between the intensified tertiary support provided to potentially retained and retained middle school students' self-efficacy and achievement outcomes are one area in professional research that has been overlooked and not previously investigated (Demanet & Van Houtte, 2013; Lane et al., 2014). Multiple researchers have implied that effective methods, such as universal, secondary, and tertiary support provided to low-performing students, could affect their social development (Andrewartha & Harvey, 2014; Demanet & Van Houtte, 2013; Lane et al., 2014; Shippen et al., 2012). However, an extensive literature search and review failed to locate any studies that demonstrated relationships shown between SCS and achievement of potentially retained or retained students enrolled in social supports programs (Levine & Levine, 2012).

With this study, I also aimed to examine the gap in the literature regarding relationships that exist between archival records of participants that will be part of the study. For this study to be feasible, I made the decision to examine the archival records of

the students within two markings to prevent maturation of data in a longer time frame. One focus of this study was to examine the importance of perceived social support from teachers, parents, and peers provided to the population of underachieving students. Song et al. (2015) found positive relationships between social supports and achievement over a time span. The guiding theory for this archival study is self-efficacy as it impacts female and male middle school students' achievement outcomes. The results of this study have the potential to demonstrate the positive impact of enrolling students in PABSS programs when they are underachieving.

Limitations

The limitations of this study were due to potential problems associated with the design of this study, regarding the internal and external validity issues. Although these threats can be unseen or minimum, these slight concerns were found internally with the sample selection biases, discrepancies found in the sample size, and deceptions found in self-reports as measure by the SCS. It was my responsibility as the researcher to ensure that safeguards were in place to reduce unfavorable circumstances or conditions that may have arisen as a result of inquiries related to this study.

One limitation to this study was the internal threats found within the methodological examination of sample selections, specifically my focus on the analysis of existing records. The lack of random selection makes the results prone to selection biases that can adversely impact the interpretations. Sample selection biases might include a limitation of concern when samples are not part of a random selection of

assignments, and given that this was a non-experimental design, it may have reduced such biases (see Smolkowski & Cummings, 2015).

The sample size in this study was relatively small, which may have indicated a lack of statistical power to detect meaningful associations and group differences (see Creswell, 2009). However, smaller sample sizes may also benefit from a lack of criterion-based elimination process or the need to withdraw cases from the study (see Green & Salkin, 2008). The proposed sample size of this study sufficed because it did not impact selection biases or cause discrepancies found in studies with larger sample sizes.

Another drawback of this study was the use of the SCS instrument and measurement. There are internal limitations found in self-reports, since researchers cannot guarantee participant honesty. It was likely that dishonest responses could be found in the self-reports; in some cases, there might have been inherent biases that were unseen about general behaviors. Researchers must take into account these unknown factors, noting that the researcher will not have control over the groups compared to the line of boundaries on what the data reveals (see Creswell, 2009). For example, if the participants chose to exaggerate or be dishonest, I would not have known it, nor was I able to control these mishaps. However, one of the major strengths in selecting a self-report method is the unique attributes of privacy because it affords students anonymity and the opportunity to freely respond to questions, based on their experiences, rather than observatory methods where researchers describe their behaviors (Creswell, 2009).

Externally, the generalizability of this study was limited since the sample may have differed regarding socioeconomic status (SES), age, and intelligence quotient (IQ)

relative to the general population (see Haberman & Yao, 2015). For example, I used a sample of existing records based on narrowly-defined criteria such as age (11–14 years old) and meeting the requirement of being a lower-performing or retained student in this study. Additionally, such students were enrolled in the PABSS program while attending one northeastern urban intermediate (middle) school in the United States between SY 2017 and SY 2018. It is unclear whether these results would differ in a suburban or rural middle school. Given this reason, the inclusion criteria served as external discrepancies and a limitation, since the sample was not a complete representation of all middle school students attending schools inside of and outside the United States. Consequently, issues concerning the extent of external validity adhere to the consistency that the participants in this study cannot be from an outside setting (Creswell, 2009). One advantage to examining participants from one environment is that it can reduce the threats to the external validity, since there may not be any environmental changes observed (see Green & Salkin, 2008).

Significance of Study

Significance to Theory

As previously discussed, the theory of self-efficacy notes the essential importance of developing a strong academic self-concept in population groups of underachieving students. In this study, I examined theories that relate to the four sources of a student's academic self-concept (i.e., mastery of experiences, vicarious experiences, social and verbal persuasion, and physiological and emotional states) as they related to the perceptual efficacy of themselves (see Bandura, 2000). Underperforming students

residing in urban environments are more at risk for retention, school failure, and underpreparedness for their futures (Gewertz, 2012; Shippen et al., 2012). Given the mixture of variables that I intended to examine in this study, this theoretical insight by adding a wider scope of understanding into an underachieving student's academic self-concept. Also, I examined relationships between students' efficacy and perceptions of school climates, as measured by the SCS, amongst student's academic behaviors, as measured by the PS® records. The findings of this study might assist in explaining how school failure could impact middle school students experiencing a poorer academic self-concept as it relates to their mental health and further psychological concerns of socio-emotional, academic, and behavioral distress.

Significance to Practice

The American Psychological Association (2018) noted that researchers studying disciplines of school-based practices need to assert competency and professional knowledge of human relations, confidentiality, and privacy as it relates to sensitive data on students. Researchers establishing an understanding of effective services in school practices offer expansion into factors associated amongst age and gender within psychological research and the practice of school psychologists (National Association of School Psychologists, 2018). Researchers have also discussed insights into preventative practices and intensified tertiary-intervention-based support services as a possible benefit to altering school failures and outcomes of middle school students enrolled in school support programs (Moran, 2013). The results of this study can inform psychological literature; hence, the findings will support the professional practices of school

psychologists by contributing to an understanding of traits found in vulnerable population groups of children (students) with poor self-efficacy. This contribution connects to my problem statement suggesting a social change by providing awareness to educational and clinical professionals.

The findings of this study could also contribute to the groundwork and expansion into the development of current research on understudied populations of retained and low-performing middle school students receiving an intervention of school-based services. Therefore, positive social changes could result via the dynamics of implementing school support as genuine efforts based on the results of this study to highlight the benefits of the PABSS program. School support could add to the significance of empowering at-risk students with positive school support and positive school outcomes. Additionally, my examination of specific demographic aspects of participants, such as age and sex, could provide researchers with insights to improve urban students' outcomes in the future.

Significance to Social Change

Psychosocially, I intended to ignite a positive social change with this study by providing insight and awareness into competency training for school psychologists and mental health professionals and adherence to ethical conduct in practice (see VanderPlaat, 2016). Psychosocial factors include providing innovative ideology to enhance school-based practices and to empower societal groups with the establishment of programs (Walden, 2009). I hope that the findings of this study concerning the provision of intensified tertiary support and wraparound services to urban middle school students in

danger of grade-level retention will be small steps toward a huge problem and help address this mitigation of school failure found in at-risk youth. The results of this quantitative, nonexperimental study can promote a positive social change as well as fill in gaps in the literature focusing on the tracking of archival reports on low-achieving and retained students (see Ferrara, 2015; Gewertz, 2012; Moran, 2013; Peterson & Hughes, 2011). Also, by expanding on this current research, education professionals can implement effective middle school support services as an intensive intervention and a comprehensive program to target at-risk students such as the PABSS designed to improve the outcomes of a failing student' academic self-concept.

Summary

In this chapter, a discussion entailing essential information on the importance of this study's magnitude, included the tracking of archival data on low-performing and retained students perceptual efficacy of the school support programs. I discussed the purpose of this study as well as the benefits towards social change that might be achieved by reducing these research gaps in the literature. Contributions from school psychologists using prosocial support have expanded into school-based services and mental health counseling (VanderPlaat, 2016). Scholars in the field of behavioral sciences have neglected to exclusively examine the tracking of archival data on low-achieving or retained middle school students' efficacy and achievement outcomes (Lane et al., 2012). As a result, I justified my choice of study approach and design to address the lack of tracking of secondary data on lower-performing middle school students.

In this study, I delved into background literature to offer historical contributions from research on the social behaviors of potentially retained or retained urban middle school students (see Vandecandelaere et al., 2016). I examined the perspective and knowledge from the discipline on low-performing or retained students through the lens of the theoretical framework of self-efficacy and focused on the IVs and MVs (see Bandura, 1977). Therefore, to achieve this goal, I provided a rationale for choosing a nonexperimental ANOVA design and the limitations that could have impacted this study.

In Chapter 2 of this study, I will review the literature as it relates to the selection of variables and themes on antecedent agents that can cause achievement gaps and the development of self-efficacy. Chapter 2 will also include an investigation into key elements that coincide with a student's perceptions of their academic self-concept. The review of literature will also include a combination of studies that addressed the outcomes of school failure and students found to have a lower academic self-concept. Lastly, I will conclude the chapter with a review of literature relating to school-based support from research on the RTI tertiary and PBSS models, noting the various components from these models that have been used to construct intervention-based protocols for low-performing or retained students as they relate to variables in this study.

Chapter 2: Literature Review

Introduction

Research has not highlighted the relationship between archival data collected on retained middle school students' self-efficacy and achievement (Appelrouth et al., 2017). Theoretically, Lane et al. (2012) and Rosário, Núñez, Valle, González-Pienda, and Lourenço (2013) found that retaining students was the number one factor found on high school students responses from self-surveys that indicated high levels of poor self-efficacy and poor self-concept. Researchers' recommendations for future research noted that self-efficacy and the outcomes of retaining a student in higher grades is an area of research that is needed (Lane et al., 2014; Song et al., 2015). In one study, Lamote et al. (2014) argued that retained students' quality of self-concept could be negative in the long run and reflective of low achievement outcomes in later grades. Haselden et al. (2012) noted that a 9-week intervention of self-efficacy training for low-achieving students was found to increase students' academic achievement. However, Hanson, Dietsch, and Zheng (2012) found the intervention of character building training to low-performing students was not significant since it did not increase academic achievement.

There are numerous factors associated with grade-level retention such as attendance and demographics. Demanet and VanHoutte (2013) found a relationship between grade retention and conduct problems, noting that retained students were 7% more likely to engage in disruptive behaviors than nonretained students. Wilson (2014) found relationships between student populations who encounter school failure and adolescents who interact with the juvenile justice system. Studies have also shown that

retained students suffer from underachievement aligned with behavioral problems; such problems often cause exposure to disciplinary referrals (Isaacson, 2016). Researchers have suggested that zero-tolerance discipline policies can open doors for students to enter into the maw of the school-to-prison pipeline (Ferrara, 2015; Gewertz, 2012; Mallett, 2014; Moran, 2013; Peterson & Hughes, 2011). Indeed, one of the highest challenges schools face is preventing behaviors from impeding a student's academic progress when the student already performs below grade level.

Another factor that leads to retention is absenteeism, which causes a countereffect of increased high school dropout rates. Increases in high school dropout rates and poor attitudes toward school climates indicated that retained students were at a higher risk of being truant from school (Matheson, 2015). Moreover, Mann, Smith, and Kristjansson (2015) also reported that poor attendance and poor academic achievement causes high rates of dropping out of school, high crime incidences, and delinquent behaviors. Although, Attwood and Croll (2015) found correlations between low-income students' poor perceptions toward school and high levels of truancy; conversely, Niehaus, Rudasil, and Rakes (2012) noted associations between low-income students positively supported by educators and those students' positive perceptions of school climates.

Dupont, Galand, and Nils (2015) reported that educational professionals debated over proactive methods used to prevent school failure and poor perceptions of school found in at-risk youth residing in urban communities. Some studies have investigated the relationship between student support provided to student populations and how they perceived school support from their peers, teachers, and family (Song et al., 2015). The

majority of literature and research on middle school programs has focused on examining the impact of programs that provide support services and interventions to retained students in elementary school grades (Vandecandelaere et al., 2016). Therefore, the purpose of this nonexperimental, repeated measure study was to determine if relationships exist between archival data retrieved on retained middle school students enrolled in the PABSS program on self-efficacy and achievement outcomes.

In this chapter, I will provide a description of my literature search strategy. The next section of the chapter will include a discussion of Bandura's (1977) social learning theory in conjunction with self-efficacy theory followed by reviews of studies that investigated grade-level retention in middle school students and their reduced efficacy, poor attitudes toward school climates, truancy, and poor academic achievement. Next, I will provide an explanation of the conceptual framework of this study and will discuss the variables significant to this study. This chapter will conclude with a summary of research that demonstrates the relationships between retained students and specific intervention support programs that effectively increase school outcomes.

Literature Search Strategy

My literature search strategy was based on a list of problems found in low-achieving and retained middle school students as it relates to their academic self-concept. I conducted my literature review search in EBSCO databases accessed through the Walden University Library that hold scholarly and peer-reviewed literature: (a) ERIC databases, (b) PSYCArticles, and (c) PsycINFO. I also used the Google Scholar search engine to locate literature for this review. Tthe keyword search terms I used for literature

on the IV were: *at-risk students, low achievement, retention, archival records, grade point average,* and *absenteeism.* The second sequence of key terms included the MVs of age and gender. These key terms involved the following combination of demographic characteristics: *lower-performing and retained urban middle school students with academic problems.* I searched for literature on educational support services using the terms: *Response to Invention, Positive Behavioral Intervention and Support, parents/caregivers, educational professionals, student support team, and family-school-empowerment of school liaisons,* and *academic and behavioral coaches.* Lastly, the psychological terms of *self-efficacy* and *the academic self-concept on student's perceptions toward school environments* were searched to collect literature about the DV.

The sources of literature I reviewed were from publication dates between 1966 and 2017. Because of the theoretical framework and historical contributions throughout history from a melting pot of theorists, I also included seminal literature in my review. Additionally, peer-reviewed literature held limitations on MVs, seeing that the extent of research on age and gender associated with middle school student's academic self-concept and perceptions of school environments. I reviewed 150 articles, but only used 119 articles as sources in this study.

Bandura's Theoretical Foundation

Self-Efficacy Theory

The theoretical framework of this study examined relationships between low-performing students and low-perceptual efficacy toward school climates basis was Bandura's (1977) self-efficacy theory. Originally, Bandura's social learning theory of

perceived self-efficacy posited that an individual's ability to learn comes from life experiences. Bandura (1977, 1997) defined self-efficacy as a perceptual belief in students' academic capability to execute tasks. Bandura (2000) stated that the perceptional ability in an individual derives from their belief and determination that they can successfully perform, accomplish tasks, and achieve goals. Self-efficacy predicts a low-achieving student's functional skills to sustain in the classroom and a lack of academic support can impact their self-achievement, causing such students to experience lack of motivation, low-confidence, anxiety, poor inhibitory control, and low self-esteem (Bandura, 1977).

Bandura (2000) theorized a student's sense of self is from perceptions connected to environmental experiences; students learn by observing modeled behaviors from teachers, peers, and parents. Bandura and Walters (1997) researched many aspects of social psychology on the development of self-efficacy, theorizing that capabilities stem from the fundamental determinants embedded within a student's unconscious mind. Bandura (1977) reported on the idea of social learning filtration in cognition and skill development of self-efficacy, noting that a person's perceptions of themselves are a result of external factors from observatory models. Bandura viewed self-efficacy as behavioral changes that an individual perceived in themselves when they approach a task or challenge.

The sense of self-efficacy activates through environmental triggers that ignite how a student views him or herself within a classroom. Bandura (2000) identified four principles that influence self-efficacy: (a) mastery of experiences, (b) vicarious

experiences, (c) social and verbal persuasion, and (d) an individual's physiological and emotional states. These principles clarify academic performances observed in low-achieving students and retained students who exhibit poor self-efficacy. Low-performing and retained students with poor self-efficacy have been found to hold negative attitudes toward school climates and low-achievement outcomes (Peters, 2013). In contrast, Moran's (2013) work added to theories on self-efficacy by highlighting approaches used to enhance a student's sense of self-worth before being retained to the same grade.

Sources of Academic Self-Concept Theory

The first source of self-efficacy is individuals' mastery of academic experiences that exist within their social setting (Howardson and Behrend, 2015). Theoretically, Bandura (2000) posited that self-efficacy has a connection to a person's mastery of experiences and belief system. In task-oriented behaviors, a student's perception of the task can influence achievement outcomes (Siegle, McCoach, & Roberts, 2017). Mastery of experiences is an essential attribute in learning; when a student masters a challenging task, that student feels a greater sense of self-efficacy (Bandura, 2000). If a student does not master the work, it undermines the mission and leaves the student feeling a sense of poor self-efficacy (Bandura, 2000). Researchers, Howardson and Behrend (2015) expanded on this theory, noting that a student's self-efficacy depends on external environments to shape his or her academic self-concept and, depending on the school and home environments, to guide the student into being capable of sustaining in various situations.

Social support service for middle school retained students is a concern. Theorists believe active support approaches from student support teams, academic/behavioral coaches, and school liaisons can ensure achievement outcomes in a student's academic self-concept (Harn et al., 2015). The origins of the RTI framework and PBIS align with Bandura's early work on an individual's social learning of their academic self-concept and exhibition of capabilities to retain concepts in classroom settings. Evidence has also shown that a low-performing student's social development was dependent upon classroom experiences to develop their self-efficacy and self-concept (Flook, Goldberg, Pinger, & Davidson, 2015; Moran, 2013).

The evidence-based interventions RTI and PBIS model multi-tiered systems of support (MTSS) monitor academic, socio-emotional, and behavioral outcomes among students who are ill-prepared to handle the dynamics of school environments (Harn et al., 2015; Mellard et al., 2012; Saeki et al., 2011). Additionally, Utley and Obiakor's (2015) study conducted evidence-based protocols designed under the RTI model and the PBIS model MTSS to provide support to all children and youth who experience poor achievement outcomes. Satisfactory results were shown in their study, noting that female and male students' GPA increased.

Song et al. (2015) conducted a 3-year longitudinal study to examine students in Grades 7–9. In this study, researchers found positive relationships that exist between social agents; parents, teachers, and peers. For example in the year-2 study showed strong relationships between emotional supports from parents and increased achievement outcomes (Song et al., 2015). Noting, family involvement has been predictive in showing

positive results of establishes relationships with school personnel when tracking a student's efficacy academic achievement, socio-emotional stability, and behavior (Dupont et al., 2015; McNeal, 2014; Reschly & Christenson, 2012). Another study by Hoigaard, Kovac, Overby, and Haugen (2015) noted that school liaisons influenced positive outcomes in participants Grades 9–10. Results showed that 46% of the participants perceived that school support assisted with goal orientation, structuring schedules, organization skills, and self-efficacy in achievement.

The second source of self-efficacy is vicarious experiences of observing others. Schwinger, Wirthwein, Lemmer, and Steinmayr (2014) explored relationships between low-performance of students in Grades K-12 and their attitude towards school, as measured by self-handicapping scale. Findings showed decreased levels of self-esteem and increased levels of perceptions of academic failure. Connolly's (2017) work also expanded on self-efficacy theories of vicarious experiences by examining the relationship between observatory social models and the effect it has on their view of themselves. Bandura (1991) theorized that one's ability to learn in different social settings encodes daily occurrences of a sequence of peripheral associations from environmental influences perceptually stored into one's short- and long-term memory.

An underachieving student can often achieve or falter in school depending upon the support they receive or lack thereof from parents, teachers, and peers (Song et al., 2015). Social learning states that expectations of the desired behaviors are a counter effect of an external model that stimulates students to observe and imitate the skill taught to them (Bandura & Walters, 1966). Students who are low-achieving run into poor

conditioning of self-efficacy, noting that self-efficacy is reliant upon social learning and cognitive grooming, by socially internalizing environment influences from peers, parents, and educational professionals. Bandura (2000) posited that vicarious experiences begin with observing an individual carry out a particular duty and handle a specific task.

Low-performing students receive a decision for retention will often depend upon team members to intervene by implementing action plans to target achievement gaps. For example, if an individual observes positive and successful role models, it often increases positive perceptions of themselves. However, an individual observing negative and unsuccessful role models who appear to fail often decreases self-image, causing a negative perception of themselves. Researchers found that school support models of collaborative team members of teachers, guidance counselors, members of special services, and parents who collectively worked together were able to increase the outcomes of students at risk for retention (Nocera et al., 2014). Therefore, theoretically, self-efficacy holds a core belief that social influences can affect motivation, how humans approach learning, and perseverance when facing challenges (Bandura & Walters, 1966).

The third source of self-efficacy is social persuasion and verbal persuasion. Bandura (2000) also posits that verbal persuasion involves constructive feedback that encourages belief in capabilities by boosting self-confidence to persevere through challenges. A study conducted on students' perceptions toward mastery of concepts found that when using social persuasion, a positive relationship existed between students' competency and efficacy toward learning (Van Dinther et al., 2014). Social persuasion was an essential component that was used to improve perceptions of ones-self (Connolly,

2017). Evidence showed that small children experienced poor self-efficacy when teachers did not persuade positive self-worth while encouraging students to persevere through academic frustrations (Moran, 2013).

Bandura and Locke (2003) noted that negative self-doubt arises in themselves when fearful thoughts manifest, causing them to feel unable to perform when a task becomes too difficult to achieve. Moran (2013) found that teachers using positive words choices of *us* and *we* (solidarity) during reading conferences boosted self-motivation and self-confidence outcomes, noting, slight increases in self-efficacy, self-worth, and academic achievement. For example, students in danger of being often retained lack self-confidence in some cases, doubting themselves and weakening their sense of self-efficacy. Therefore, confidence is an instilled belief in a person's self-worth and belief that they possess the skills necessary to execute tasks and challenges (Bandura, 2000).

Bandura and Locke (2000) stated that individuals with weak planning skills, organizational, task-orientation skills, and poor inhibitory control, will require self-management training from role models who offer support (e.g., academic/behavioral coaches and school liaisons) to develop self-regulation in themselves to improve academic skills and responsibilities. Behavioral learning is contingent upon a student's social adaptive behavior to conform, observe, and imitate external stimuli's impacts on engagement in the learning environment (Bandura, 1977).

Academic coaches are defined as a tier-three intervention that provides one-on-one academic support to a student who has learning deficits and achievement gaps (Garcia et al., 2013). To further expand on Bandura's self-efficacy theory, Phan and Ngu

(2016) determined that personal self-efficacy focus on a student's capabilities to believe in oneself to be structured, organize, and focused on attaining concepts taught to them. Academic coaches offer students' individualized support to train student's to use mindfulness techniques of focusing skills, organizational skills, time-management skills, and study skills (Leland, 2015).

Cuenca-Carlino, Freeman-Green, Stephenson, and Hauth (2016) examined six middle school students classified as severely learning disabled in math. The RTI was implemented alongside the "Self-Regulated Strategy Development," (SRSD) for 12 weeks, 4-days a week, and 45 minutes each session. The most distinctive piece of evidence was the finding that revealed functional relationships between SRSD instruction and increases in self-efficacy when student interviews were compared (Cuenca-Carlino et al., 2016).

Also, Haselden et al. (2012) found that results showed students responses before the intervention and after the intervention change, noting observations of lower scores in the pre-test, illustrates a 48% increase in the posttest on self-concept. Kelm and McIntosh (2012) conducted a quantitative study on 62 educators to examine relationships between teachers efficacy and attitude about at-risk students achievement outcomes as measured by, "Teachers' Sense of Efficacy Scale" (TSES). The finding showed, 80% percent of teachers reported: "somewhat of a positive impact" on students' achievement, behavioral, and growth of social outcomes.

Societal influences in school environments are social guides that motivate learning via instruction material and social skills of adaptation within classroom

environments (Pattison, 2014). School support has been used to increase self-efficacy through verbal persuasion in which school liaisons and behavioral and academic coaches will use positive words to enhance the student's self-efficacy. Garcia et al., (2013) used the Texas assessment measure of middle school students in Grades 6-8 to show different relationships between one school that provided academic coaches and another school that did not. Findings showed students receiving support from academic coaches had increased grades in science and social studies.

Academic coaches can benefit underachieving students identified for retention by offering support of mindfulness techniques that can improve a student's academic self (Leland, 2015). Phan and Ngu (2016) studied school coaches training students' self-efficacy and found they used self-efficacy's four principles to model improved achievement outcomes for students. Adolescents recommended for retention experience sociological disconnections and maladaptive behavior when they fail to get their hierarchy of academic needs met; however, deep-rooted problems of low-level self-efficacy mediates through positive academic support (Mann et al., 2015; Matheson, 2015; Orange & Ramalho 2013).

Behavioral coaches are defined as interventionists who train students to use self-regulatory skills (Ehrenreich et al., 2012). In theory, Bandura (1997) social cognitive learning and regulations derive from triadic reciprocal observations: (a) high and lows in personal self-efficacy of one's potential, (b) behavioral responses after a performance, and (c) environment support that influences success in a person. Behavioral coaches offer students' individualized support using mindfulness techniques for processing their

decision-making skills and emotional regulation techniques to cope with classroom environments (Leland, 2015). Researchers, Fallon, Zhang, and Kim (2011) and Wilson (2014) report preventative methods that schools are using to change behaviors outcomes. The researcher's found such behavior interventions include: (a) cognitive behavioral therapy training, (b) referring in-school community-based counseling agencies, (c) Functional Behavior Assessment (FBA), and (d) behavior intervention plans.

Ehrenreich et al. (2012) qualitative case study noted that one student felt that having a behavioral coach gave support necessary to be cognizant of oneself and that the coach would always have his best interest at heart. McDaniel, Flower, and Cheney (2011) found relationships between PBIS (e.g., behavioral coaches) and "Check, Connect, Expect" (CCE) approach. The CCE intervention uses Tobin Sprague's principles as the approach to measuring the effectiveness of the behavioral coaches. The principles are: (a) small student/teacher ratios, (b) structured classrooms/school environments, (c) positive classrooms/school environments, (d) school-based training, (e) social skills training, and (f) parent involvement (McDaniel et al., 2011). Significant relationships between coaches who offered students' behavioral training found increases in achievement and decrease in conduct after the treatment (McDaniel et al., 2011). As a result, the behavioral coaches can train students to self-reflect, be self-aware, and self-regulate during classroom dynamics.

School liaisons support families by empowering parental engagement in creating a self-management guide for their child's education and assisting parents in developing a repertoire of advocacy skills to interface with school personnel (Edgar-Smith & Palmer,

2015; Lower et al., 2016). Bandura (1997) noted that self-efficacy is the belief that the sense of oneself associates with the perceptions of others within an immediate environment such as school influences, family influences, and peer influences. School liaisons serve as a tier-three intervention; they are responsible for visiting a student and family, settings up self-management. Action plans in education (academic/behavioral coaches, homework help) and plans for home (homework/study, schedules, and communication (e.g., calls, text messages, or emails) to correspond about the student concern (Dupont et al., 2015). Research prescribed that the PBIS and RTI tier-three model provide a relationship between school liaisons, teachers, and families by offering the ability to create systems of interfacing for the singular purpose of ensuring student's success (Dupont et al., 2015; McNeal, 2014; Semke & Sheridan, 2012).

The fourth source of self-efficacy is the physiological capabilities and emotions about oneself. A human's physiological and emotional states can guide subsequent behaviors modeled before them, reflecting within a person's actions when they are required to use self-reflective, self-reliant, self-control, and self-regulatory skills (Bandura, 1991). Theoretically, Bandura (1991) believed that academic preparedness of an individuals' self-efficacy has to incorporate self-regulation techniques via self-monitoring, self-observing, and self-correcting.

The physiological state can emotionally impact an individual's ability to handle stress or exude confidence when required to execute a task (Bandura & Locke, 2003). Connolly (2017) presented the theory that physiological experiences of self-doubt can hinder perceptions of themselves, causing a person to become counterproductive when

they believe that they will perform poorly. Researchers found that when a student's emotionally experiences stress, the limbic nerve will become triggered, causing students to go into fight or flight mode (exhibit behavior disruptions) to escape the learning environments (Mathur & Nelson, 2013).

Negative perceptions toward self-image, self-esteem, and self-efficacy found in 894 low-achieving middle and high school students in Grades 7-10 (Booth & Gerard, 2014). Over time, the perceptions felt toward a person's self about their physical size after retention can be devastating to a student. For example, older students reported perceptually experiencing high levels of frustration and humiliation towards themselves when they are older than their peers (Booth & Gerard, 2014).

In 21st-century learning concepts, discussions point to the significance of using social support provided to at-risk youth of science, technology, engineering, and math (STEM) programs to examine the impact on their school outcomes. Researchers found high increases in college selections, academic achievement, and self-efficacy in students that enrolled in STEM programs (Rice, Barth, Guadagno, Smith, and McCallum, 2013; Wright, Jenkins-Guarnieri, & Murdock, 2013). An overview of research by Matheson (2015) found that using an academic intervention model of goals, beliefs, and expectations within the school increased student achievement outcomes and graduation rates.

Matheson (2015) found relationships between 230 low-performing students, self-report scale results noting, that the majority of students reported decreased levels of efficacy and attitudes toward school climates, motivation, and achievement. Rosário et al.

(2013) argued that positive self-efficacy could lead to positive academic performance when strategies use self-regulatory techniques for middle school and high school students. Therefore, further studies noted evidence showing that using such strategies decreased the potential of grade-level retention and increased grade point averages, contributing to making educators knowledgeable of phenomena of positive academic support (Rosário et al., 2013).

Literature Review Related to Key Variables

The key variables were examined in this study to show the perceptual efficacy of low-performing or retained students enrolled in a program. The program that provided school-based interventions and supports services. Therefore, the examination conducted upon archival records on achievement (GPA), attendance, and demographic information (age and gender) can explain the effectiveness or ineffectiveness of the program.

Grade Point Average and Achievement

GPA is an indicator of female and male students' academic achievement outcomes. Unfortunately, low-achieving students cannot exhibit higher levels of motivation to learn with a goal- and task-oriented behaviors, perseverance through challenges, and are motivated to increase their knowledge (Litalien, Morin, & McInerney, 2017). However, research states that academic underachievement observed in female and male students is usually illustrated by poor GPA. These students lack fundamental skills, lack attainment of contextual material, and exhibit poor academic habits or developmental delays (Banerjee, 2016; Faria et al., 2017; Range, Pijanowski, Holt, & Young, 2012). Moreover, evidence shows that underachieving individuals at risk

for academic failure and grade-level retention will experience lower levels of self-efficacy and achievement outcomes (Moran, 2013). Noting that researchers, Daly, Moolenaar, Liou, Tuytens, and del Fresno (2015) found that students performing below grade level have shown low levels of academic efficacy and perceptions toward school culture.

Lamote et al. (2014) argued that retaining low-achieving students might have a positive effect on high levels of academic self-concept after the retention year; however, post years of retention, the student's academic self-concept may decrease. Social promotion has been argued by researchers suggesting it can produce positive or negative side effects on student's achievement outcomes (Lynch, 2013). For example, Braun et al. (2016) found positive relationships between social promotion and increases in students GPA in Grades 7-9 in students identified as at-risk for dropping out of school. However, Lynch (2014) also found poor relationships shown between GPA and standardized test from students socially promoted. Lamote et al. (2014) stated that retained and socially promoted middle school students were compared, showing that students socially promoted showed growth in GPA scores and academic self-concept, whereas retained students GPA and academic self-concept declined.

The literature discussed that a student’s social learning and self-efficacy psychosocial behaviors exhibit either strong adaptive behaviors or weak adaptive behaviors, reinforcing learned behaviors from others in their learning environment (Bandura, 1977). The ideology reinforcing the school-to-prison-pipeline suggests a direct correlation between underachievement in urban environments and negative school

experiences that affect many future outcomes of students (Mallett, 2014; Mathur & Nelson, 2013). For example, researchers have noted that punitive practices used in school impact achievement by causing students to fall behind academically, form negative perceptions about self, become at risk for retention, and become increasingly likely to drop out of school (Skiba et al., 2014). Researchers proclaimed that school-based interventions designed to reduce grade-level retention rates found that at-risk youth, was necessary for increasing achievement outcomes, therefore, it is imperative for schools to develop practical approaches for dealing with students identified with having learning problems combined with behavior problems (Mathur & Nelson, 2013).

Absenteeism in Retained Students

Studies revealed that frequent absenteeism observed in school systems in the United States is associated with underachievement found in students in Grades K-12. Finding in literature explains that, adolescents receiving at least one grade-level retention may experience a negative shift in their behavior, attitude, and attendance outcomes (Birioukov, 2016; Lynch, 2013). For example, Attwood and Croll (2015) found that the "Household Panel Survey" administered to 770 truant and low-economic students between 11 to 15 years of age revealed that students highly rated that they held poor perceptions toward their teachers, peers, and school environments. Niehaus et al. (2012) longitudinal quantitative comparative study provided empirical support to substantiate this claim noting, that students negative attitudes toward school satisfaction correlates with high rates of absenteeism.

In that study, the "Needs Satisfaction Scale and the Scale of Caring Adult Relationships in School measurement was given to 360 sixth-grade failing or retained students" (Niehaus et al., 2012, p. 448). The scales showed increased levels of response in areas of perceiving disinterest in school and dissatisfaction with the operational practices of school systems (Niehaus et al., 2012). Chronic absenteeism is a large problem that can lead to grade-level retention. One cause of absenteeism found in students that encounter grade-level retention was increases in lower academic self-concept and lower academic self-esteem (Reid, 2012). Students who were found not to meet annual academic standards, reported feeling poor self-efficacy and far less adequate in comparison to their counterparts (Niehaus et al., 2012).

In this literature review it found a negative association between SES and academic achievement, absenteeism, and parental involvement that predicts future outcomes of high school dropout rates (Parr & Bonitz, 2015). For instance, in 2011, it was estimated that 7.1% of students in the United States dropped out of school (U.S. Department of Commerce, 2015a). Additionally, the U.S. Department of Commerce (2015a) estimated that between the years of 2000-2015, the percentage of students who dropped out of school between the ages of 16-24: (a) 4.4% of White, (b) 6.2% Hispanics, and 7.3% of African Americans. Research studies have shown that when students lack external support, it increases chances of dropping out of school, and increases the risk of becoming a menace to society (Parr & Bonitz, 2015).

In the United States, many students encounter transient school problems that affect absenteeism; research suggests that school changes can have a direct impact on

academic achievement and behavioral outcomes (Grigg, 2012). Also, a student's life experiences can affect their regular engagement in attendance within school environments. Birovkov (2016) found voluntary/involuntary absenteeism links to failing students: (a) cognitively, students struggle to self-motivate or adjust to hostile learning environments, (b) students from low-income are required to work to supplement income, and (c) students will malinger to escape from stressful school settings.

A case study was conducted to measure 1,020 sixth-grade students through a self-report to show relationships between maladaptive academic behaviors (e.g., concealment, confusion, and self-pity) and increased absenteeism (Skinner, Pitzer, & Steele, 2013). Another factor that associates with retention and absenteeism within student populations shows that students often find themselves in a loco parentis (parentified) role within their household, leaving them little time to attend to their academic responsibilities as well as sustain attendance (Mallett, 2014).

Retained students need a different alternative other than social promotion to remedy academic failure and frequent absenteeism. The “Self-System Model of Motivational Development” (SSMMD) posits that individuals have the innate abilities instilled within them to connect with other people in their natural environment such as parents, peers, and teachers (Fall & Roberts, 2012). Although many students are disadvantaged in receiving academic and social support, some students will thrive because of social support systems (Niehaus et al., 2012). VanderPlaat (2016) argued that community-based prevention programs that have been designed to attack truancy, absenteeism, and dropout rates found that relationship between school-based-services and

the positive outcomes shown in student's academic achievement, socio-emotional adjustment, and behavioral.

For example, evidence has shown that 48 females at-risk for failure and truancy benefitted from positive reinforcements of two sessions of a 3-day intervention, showing a positive relationship between the intervention and the females' pro-social behaviors of connecting with school, their identity, and self-efficacy (Mann et al., 2015). In another study, findings showed that social support from teachers, peers, and family predicted students' self-perception and self-motivation, increased attendance, improved behaviors, and upgraded academics (Fall & Roberts, 2012). Therefore, Vandecandalaere et al. (2016) theorized that when low-performing students receive prosocial support services, finding show increases in self-efficacy, academic achievement, and attendance rates.

Demographic Characteristics of Retained Students

Researchers asserted that demographical characteristics identified in retained students attending urban schools represent several factors (Braun et al., 2016; Strong & Harder, 2011). Researchers noted these factors: (a) genders of male and female, (b) ethnicities of Hispanic, African American, Asian, White, or other), (c) SES free-lunch-programs, and (d) middle school ages of (12-15) in grades 6-9 from archival records. Characteristics found in urban communities show a greater risk for predisposing students to academic failure and a multitude of other school-related issues. In the United States, researchers note that African American males arriving from urban communities risk adverse outcomes and high level of school failure (Rodríguez & Greer, 2017). In this study, Gottfried (2012) reported the rate of grade-level retention has grown to

approximately 10% in the United States; however, within that rate, 30% of African Americans were retained at least one grade level.

The dynamics of an urban environment can trigger disconnects when educators are not culturally aware of a family's SES and the stressors that at-risk students experience. Findings specified that in the United States, 87% of all teachers are Caucasian females (Banks & Obiakor, 2015). Researchers, Dupont et al. (2015) theorized that teachers from higher SES and higher levels of education might consequently hold different cultural norms and beliefs, causing negative feelings about low-income minority-based families. Competency of social and emotional experiences of urban environmental stressors is essential in identifying anxiety and depression in students. Banks and Obiakor (2015) found that a significant amount of retained students from lower SES risk engaging in volatile behaviors and suffer from anxiety, depression, self-isolation, or withdrawal from school environments.

Niehaus et al. (2012) reported that inner city youth experience severe poverty, high crime rates, violence, and drug trafficking. In many cases, research has shown that retained students face stressful home lives that can impede their academic performance, also illustrating reduced adaptive coping skills (Skinner et al., 2013). Although many children encounter negative environmental influences, some minorities will beat these odds. Rodríguez and Greer (2017) stated that an African American male shared his struggles growing up in an urban environment. He reported growing up with no father figure and a drug-addicted mother, saying he often was absent from school, neglected to

complete homework, and resided with a majority of his family members; however, through self-determination and peer-support, he was able to obtain his Ph.D.

Skinner et al (2013) found that students of a lower SES typically experience academic stressors of confusion in the classroom, use disruptive tactics to escape from classes, conceal learning deficits, and feel sorry for themselves. Additionally, Braun et al. (2016) found that urban middle school female and male students who fail core content classes are at a greater risk of dropping out in high school and school failure. Experts explain that school failure associates with developing poor social relationships, lower employment opportunities, higher chances of interactions with the judicial system, and possible incarceration (Montague, Enders, Cavedish, & Castro, 2011).

Evidence has shown relationships between higher levels of academic failures of middle school females and poor self-efficacy when compared to their peers who are academically achieving and ranking elevated levels of self-efficacy (Mann et al., 2015). Similarly, research summarized on Black males who experience school failure shows that they experience low levels of self-efficacy, self-perceptions, self-concepts, and self-esteem when compared to Black females, White females, and White males (Wilson, 2014).

Braun et al. (2016) reported that through the Urban Collaborative Accelerated Program, 125 female and male students in Grades 7-9 were socially promoted and provided academic support to measure achievement outcomes, noting positive correlations and high GPAs. Niehaus et al. (2012) conducted a longitudinal quantitative comparative study to analyze specific connections perceived by youth during their middle

school years. Participants in Niehaus's study were 300 sixth-grade students recruited from two different middle schools. The results showed that supported students in the treatment group had less of a reduction in their GPAs when compared to students who did not receive school support (Niehaus et al., 2012). Also, the results showed that females ranked higher on academic achievement but lower on behavioral reports when compared to their male counterparts (Niehaus et al., 2012).

Summary and Conclusion

In this chapter, a review of the literature presented current scientific evidence on low-achieving students' self-efficacy that derives from Bandura (1977) social learning theory, which will guide the theoretical framework grounded in this study. Researchers have flooded literature with the purpose of school programs implementing approaches such as the PBIS and RTI models for high school student at risk for school failure. However, research is lacking in measuring underachieving middle school students enrolled in school support programs from archival records on efficacy and achievement. The dominant focal point of analyzing these studies is to gather distinctive evidence shown on associations and relationships between underachieving students' self-efficacy and attitudes toward school support and grades, behavioral concerns, and attendance problems. Researchers have extensively examined the sociological effects and characteristics of demographic traits in underachieving students. The social risk and consequences of retaining students in elementary school and middle school without widespread school support have not been exclusively measured and examined at length (Shippen et al., 2012). Adolescents residing in urban communities who have learning

problems combined with behavioral problems rank higher in negative correlations of societal outcomes in mental disorders, substance abuse, teenage pregnancy, and incarceration (Mallett, 2014). Academic coaches, behavioral coaches, student support teams, school liaisons, families, and community based-services can work collectively to offer intensive tertiary-level wraparound supportive services to low-achieving or retained students (McDaniel et al., 2011).

Researchers suggest that without intensified tertiary student support, low-performing students are at risk for impaired academic and behavior development (Greene, 2014; Scott & Cooper, 2013; Utley & Obiakor, 2015). Low-achieving students have higher rates of dropping out of school and greater chances of delinquent behaviors in the future (Wilson, 2014). Intensified tertiary supportive programs have been developed using the PBIS and RTI as school-family-interface approaches to at-risk adolescents with academic support from academic coaches, behavior support from behavioral coaches, and family support from school liaisons so that students receive a host of wrap-around services. Researchers' observations of school programs lack research on systematic evaluations of students' perceptions of their efficacy toward school support when tracking archived data to show relationships between grades, attendance, and discipline (Edgar-Smith & Palmer, 2015). This study strives to fill several gaps in the literature. Therefore, more evidence is called for to demonstrate the effectiveness of how school preventative programs that align with PBIS and RTI can assist with the academic self-concept observed in low-performing or retained students.

In chapter 3 of this study, I will discuss research methods and the groundwork for this nonexperimental quantitative study. Chapter 3 will also include the research and design, the setting, as well as the sampling process. Lastly I will conclude a discussion on the instruments and retrieval of archival data collection process, the data analysis protocol, the ethical considerations, and participant protection of rights.

Chapter 3: Research Methods

Introduction

The purpose of this archival, quantitative, nonexperimental, repeated measure (ANOVA) design was to examine the relationships found between self-efficacy and achievement of retained intermediate age students enrolled in the PABSS program. I used a repeated measure design to explore the relationships between archival data and analyze changes that existed in the outcomes found in secondary data when tracking results throughout SY 2017 and SY 2018. In this study, I sought to evaluate the relationships between six criterion-based variables: efficacy, attitude toward school support as measured by the SCS, achievement (GPA), attendance, and demographics (age and gender) as measured by PS® school-web-based electronic program to store records.

In this chapter, I will present the research design and rationale for this study. Further, I will discuss the methodology to include the population, sampling process, procedure for recruitment, and the data collection process. Lastly, the ethical considerations of the procedures for collecting data, analyzing data, statistical validity, and the steps that were taken to stay within the ethical guidelines of the code of conduct will be discussed.

Research Design and Rationale

This research study was a quantitative, nonexperimental, repeated measure design using secondary data over a time span of two marking periods. In this study, I examined changes in underachieving middle school students enrolled in the PABSS program. The IVs were archival data obtained from student records on achievement (GPA), attendance,

and demographics (age and gender). The DVs were tracked using archival results from the SCS (efficacy and perceptions of school climates).

The most common approach to this type of study is to use a quantitative, repeated measure design since these methods are frequently used in examining relationships that exist between variables (Mann et al., 2015). The key attributes in a repeated measure design are used to investigate and observe for changes over different times (Temel, Erdogen, Selvi, & Kaya, 2016). I used a repeated measure design to address the research questions by determining if a relationship existed in the same group before and after the intervention to demonstrate its effectiveness (see Gravetter & Wallnau, 2016). I used the repeated measure design to investigate the effectiveness of the PABSS program and intervention by examining secondary data on participants' scores and comparing one marking period to the next marking period over a 6-month timeframe.

One limitation of this design is my lack of control over participant selection as the researcher, which poses a threat to the internal validity of the study. Furthermore, the archival secondary data did not afford me the ability to manage threats because repeated measures hold mean values that will be present (see Mann et al., 2015). However, using archival data is a practical method that is widely used to measure associations like the ones that were investigated in this study (see Braun et al., 2016). Since I was not involved in the data collection process, the assumption was that the data collected had been correctly documented.

Methodology

In this section, I will cover the population and sampling procedures for using archival data from low-performing or retained students in this study. Additionally, the section will include the process of recruitment and participation. In the last subsection of this methodology section, I will explain the data collection and analysis plan.

Population

The secondary data included student participants between the ages of 11 to 14 years of age. The research method of using secondary data via student members applies to a quantitative study because the focus of performing the secondary analysis is on information stored in computerized databases designed for government agencies such as school districts (Cohen, 2016). The sampling identification process for recruitment arrived from participants enrolled in the PABSS program and from a random sampling of members registered in the program. In the study, there was a sample size of 45 participants who were part of the program at the time of the study.

Sampling Procedure for Using Archival Data

The sampling method I employed in this study used archival data from a random sampling of participants enrolled in the PABSS program. I derived statistical power and sample size estimates using G*Power 3.1 (see Faul, Erdfelder, Lang, & Buchner, 2007) to compute appropriate sample sizes, alpha level, power, and effect size to determine statistical power (Gravetter & Wallnau, 2016). Researchers often use an alpha level of 0.05 and statistical power of 80% to determine the appropriate sample size for research studies (Gravetter & Wallnau, 2016). Therefore, to achieve 80% power with an alpha of

0.05, this study required a sample size of at least 34 participants to detect an effect size 0.25 in one group with two measurements, assuming that the correlation between measurements is at least $r = 0.50$. I calculated this estimate using the "ANOVA: Repeated measures, within factors" function under the "*F* tests" test family.

Procedure for Recruitment, Participation, and Data Collection

I used secondary data to track potentially-retained students and retained middle school students enrolled in the PABSS program. The superintendent of study site's school district provided me with a letter granting permission to collect archival data from the director of technology. I contacted both the superintendent and director of technology by e-mail to introduce the study. The director of technology is trained to export PS® records to researchers who require pre- and postarchival scores from the SCS (self-efficacy and attitude toward school support) and pre- and postarchival scores from PS® records (attendance, gender, achievement, and age). I collected archival data from SY 2017 and SY 2018. In my e-mail communication with the superintendent and director of technology, I explained the purpose of asking permission to track archival records from SCS reports and PS® records on an approximate group of 45 participants who were students between the ages of 11–14 years old to collect the following information:

- School Climate Survey (SCS)
  - Physical environment (attitude toward school climates)
  - Teaching and learning (attitude toward school support)
  - Morale in the school community (efficacy)
  - Student relationships (efficacy)

    - Parental support (Efficacy)
    - Safety (attitude toward school climates)
    - Emotional environment (attitude toward school climates)
- PowerSchool® (PS®)
    - SY 2017 and SY 2018
    - Achievement (GPA)
    - Attendance
    - Gender (male/female)
    - Ages (11–14)
    - Grades (sixth–seventh and seventh–eighth)

I received approval from the Walden University Institutional Review Board (IRB), committee members, and University Research Review before starting data collection. The documentation of these request letters/e-mails (see Appendix A) and the superintendent signed consent forms granting me permission to conduct research and collect secondary data (see Appendix B). Also, a request letters/e-mails (see Appendix C) and the PowerSchool® consent permitting me to reference their company in my study (see Appendix D). The letters included descriptions of the study (see Appendix E) and the purpose as well as confidentiality statements safeguarding the secondary data, agreements, and the ability of the study site to opt out at any time from providing secondary data for this research study (see Appendix F). I used electronic security measures for the secondary data that held computerized links and e-mails. The

documentation I obtained from the director of technology and stored until the release time of the secondary data from the SCS reports and PSR.

I tracked and collected archived results from two quantitative instruments, the SCS and PS® records. My collection of secondary data categorized information in a quantifiable way for future usage. Archived data holds de-identified data sets of secondary information, making it less cost-effective, yet cost-efficient for researchers when collection data takes place (Eichler, Pétavy, Pignatti, & Rasi, 2013).

The purpose of the SCS is to identify strengths and weaknesses that exist in the climate of school environments by tracking and collecting secondary data from the survey (New Jersey Department of Education, [NJDOE], 2012a). The ethical principles, procedure and guidelines under the protection of rights for human research collection of data do not require researchers to gain permission before use of the SCS instrument, because it is within a public sector (see NJDOE, 2012b). For example, the website states, "the SCS is a free resource within the public domain that is designed for school districts to administer with the flexibility to use in a way that best fits the school's needs" (see NJDOE, 2012b, p. 1). I will provide the website and a description of sample questions from the SCS instrument (see Appendix G) and descriptions of both of the instruments in the following subsections. Therefore, I used this procedural design to collect, analyze, compare, and track students' responses. Also, I used these domain questions to assess their self-efficacy and attitude toward school support using these seven predictors: (a) physical environment, (b) teaching and learning, (c) morale in school community, (d)

student relationships, (e) parent support, (f) safety, and (f) emotional environment (NJDOE; 2012b).

The purpose of the PS® records is to store cumulative records on the student populations, and it offered me a unique ability to collect archived data from educational professionals, families, and students. PS® is a web-based design that is used to archive, collect, compare, and track students' records on: (a) grades, (b) attendance, (c) gender, and (d) age (Porter, 2000). The PS® is used as an assessment measurement to rank data that shows quantifiable growth or weaknesses (Porter, 2000).

Instrument and Operational Constructs

A. School Climate Survey (SCS). The SCS scale is for middle school and high school students between Grades 6–12 (see NJDOE, 2012a). This demographic questionnaire assesses the age, race, gender, and educational experiences (see NJDOE, 2012b). The NJDOE (2012b) in conjunction with the Bloustein Center designed the scale for survey research at Rutgers University. The SCS asks 61 questions on a 5-item, Likert-type scale (see NJDOE, 2012b). The SCS scale yields items that measure students on their self-efficacy and perceptions toward school environments and uses seven-predictors: (a) physical environment, (b) teaching and learning, (c) morale in school community, (d) student relationships, (e) parent support, (f) safety, and (f) emotional environment (see NJDOE, 2012b).

Reliability and Validity of the Instrument

B. School Climate Survey (SCS). The reliability and validity of the SCS construction of the instrument hold unique procedures. The SCS scales are known for

measuring and analyzing scores derived from each of its domain scales (see NJDOE, 2012b). The SCS uses a Likert scale from 1–5, rating options from the nine domains in required responses. The Cronbach's alpha reliability statistical procedure on the SCS scale notes that it holds an excellent score of .90 or more, a good score of .80 to .90, an acceptable score of .70 to .80, a questionable score of .60 to .70, and a poor score of .50 to .50 (see NJDOE, 2012b). The Cronbach's alpha reliability descriptive data holds a coefficient of determination to explain validity, standard root mean remaining, and the Tucker-Lewis Index that compares data (see NJDOE, 2012b).

Researchers measured the statistical reliability and validity of the SCS, a study was conducted on a group's middle school students to assess the perception of their school experience (see NJDOE, 2012b). The predictive validity showed that their responses fell within a normal range (see NJDOE, 2012b). For example, the predictive validity of the descriptive statistical finding reported that middle school students perceived their physical environment as unacceptable ($\alpha \leq 0.44$). Also, they perceived their learning and teaching experience to be acceptable ($\alpha \geq 0.87$), and they perceived their morale in the school community to be acceptable ($\alpha \geq 0.82$). Lastly, they perceived their student relationships as acceptable ($\alpha \geq 0.83$), perceived their parent support as questionable ($\alpha \leq 0.63$), they perceived their safety as acceptable ($\alpha \geq 0.72$), (NJDOE, 2012b). The SCS scale adds further reliability construct that affords researchers an opportunity to collect data from test-retest on participants from the sample selected so that individualized tests and retest can offer comparable results.

PowerSchool®. The chief operating officer and president of PowerSchool® Greg Porter, created this school-web-based electronic program as an educational instrument designed to track student records (Porter, 2000). Porter's web-based program (PowerSchool®) allows for data to be electronically stored in the student information system (SIS). PowerSchool® programmatic design singlehandedly gathers information on grades, attendance, meal-plans, discipline, demographics, and schedules (Bird, 2006). PowerSchool® is unique in regards to empowering administrators, teachers, families, and students with the ability to share a web of information on students (Bird, 2006). Another unique attribute about PowerSchool® is that it is compatible with many products that require Internet access such as computers, phones, tablets, and laptops (Porter, 2000).

PowerSchool® offers school district's the technological advantage of accessing and tracking archival data on student's ranging back in years. The specialized databases provide effectual real-time gains since it is one of the largest school-based Internet instruments used to collect data, track student outcomes, share information, view virtual information on students, and measures student outcomes (Bird, 2006). Thus, administrators, teachers, families, and students can correspond and display a significant amount of data such as corresponding e-mails, monitoring of grades/assignments, and observations of the student's progress (Porter, 2000). School districts in the northeastern part of the United States widely use PowerSchool®, researchers have shown that early research on PowerSchool® showed that 7,000 school districts are actively using Power School across the country (Bird, 2006).

Porter assembled the web-based technological program for school districts to provide continuous training to directors of technology to keep them competitive in analyzing and exporting data from PowerSchool® to educational professionals within schools (Porter, 2000). For example, the Westside School District alongside director of technology was examined to look at the relationship between PowerSchool® and the number of time students logged into the site throughout the school year of 2004-2005 (Bird, 2006). The analysis showed that 90% of the student population logged onto the PowerSchool® site with their student passcodes (see Bird, 2006). Therefore, no direct contact used to collect archival data in this study since secondary data was directly exported from the director of technology. Moreover, the director of technology will be the only person authorized to gather and export archival records from PowerSchool® on grades, attendance, meal-plans, discipline, demographics, gender, and age.

Data Analysis Plan

Archived data in this study arrived from the superintendent and director of technology at an urban middle school in the Northeastern part of the United States. The analysis plan for this study was to utilize a repeated measure approach to analyze archival data. The superintendent and director of technology received informed consent forms in a letter to request permission to retrieve archival data, a data use agreements, and confidential agreement. The documents explained the dynamics of the study, procedural guidelines for inclusion in the study, the rules of confidentiality as well as risk, and contact information available for all inquiries about the study. I was responsible for

maintaining forms, records, securing all classified information, and I was the only people who have access to the data.

The data in this study was collected from archival records on two different instruments to measure middle school participants enrolled in the PABSS program and students who are not in the program. The first measurement was from the SCS which is a measure of participants' archived responses on efficacy and attitude towards school support. The second measurement was on middle school students' archival records from PS® records on attendance, age, gender, and grades. The Statistical Package for the Social Sciences (SPSS) was used to analyze the data to evaluate the effectiveness of the school-based program psychometrically. Table 1 provides a snapshot of the data analysis plan.

Table 1

Data Collection & Analysis Plan: Research Questions, Variables, Statistical Test, Effect Sizes, Sample Sizes

Research Questions	Dependent Variable	Independent Variables	Statistical Test	Effect Size	Sample Size
RSQ 1: Is there a significant difference between SY 2017 and SY 2018 on the GPA outcomes of middle school students enrolled in the PABSS program, as measured by PSR, and change in self-efficacy and perceptions toward school climates as measured by SCS?	SCS	GPA	Repeated Measure ANOVA	Medium Effect Size f^2 =.25	N = 34
RSQ 2: Is there a significant difference between the SY 2017 and SY 2018 attendance outcomes of middle school students enrolled in the PABSS program, as measured by PSR, and change in self-efficacy and perceptions toward school climates, as measured by SCS?	SCS	Attendance	Repeated Measure ANOVA	Medium Effect Size f^2 =.25	N = 34
RSQ 3: Is there a significant association between middle school students' age with a change in self-efficacy and perceptions toward school climates, as measured by SCS between SY 2017 and SY 2018?	SCS	Age	Repeated Measure ANOVA	Medium Effect Size f^2 =.25	N = 34
RSQ 4: Is there a significant difference between females and males middle school students concerning a change in self-efficacy and perceptions toward school climates, as measured by SCS between SY 2017 and SY 2018?	SCS	Gender (M/F)	Repeated Measure ANOVA	Medium Effect Size f^2 =.25	N = 34

Restatement of Research Questions and Hypothesis

The datasets that I used in this study, contained two different instruments used to measure middle school participants enrolled in the PABSS program. The first measurement was the SCS that measured participants' archived responses on efficacy and attitude towards school climates. The second measurement was the middle school students archival records that was electronically stored in computerized databases such as PS® records on SY 2017 and SY 2018 attendance, sex, age, and GPAs. Based on this knowledge, the following restatement of research questions and hypothesis as conveyed in Chapter 1 were as follows:

RQ1: Is there a significant difference between SY 2017 and SY 2018 on the GPA outcomes of middle school students enrolled in the PABSS program, as measured by PS® records, and change in self-efficacy and perceptions toward school climates, as measured by SCS?

$H_0$1: There is no significant difference between SY 2017 and SY 2018 on middle school students' GPA outcomes, as measured by PS® records, and students' change in self-efficacy and perception toward school climates as measured by SCS.

H_a1: There is a significant difference between SY 2017 and SY 2018 on middle school students' GPA outcomes, as measured by PS® records, and students' change in self-efficacy and perception toward school climates, as measured by SCS.

RQ2: Is there a significant difference between the SY 2017 and SY 2018 attendance outcomes of middle school students enrolled in the PABSS program, as measured by PS® records and change in self-efficacy and perceptions toward school climates as measured by SCS?

$H_0$2: There is no significant difference between the SY 2017 and SY 2018 middle school student attendance outcomes, as measured by PS® records, and students' change in self-efficacy and perception toward school climates, as measured by SCS.

H_a2: There is a significant difference between the SY 2017 and SY 2018 middle school student attendance outcomes, as measured by PS® records, and students' change in self-efficacy and perception toward school climates, as measured by SCS.

RQ3: Is there a significant association between middle school students' age with a change in self-efficacy and perceptions toward school climates, as measured by SCS between SY 2017 and SY 2018?

$H_0$3: There is no significant association between middle school students' age and a change in self-efficacy and perception toward school climates, as measured by SCS between SY 2017 and SY 2018.

H_a3: There is a significant association between middle school students' age and a change in self-efficacy and perception toward school climates, as measured by SCS between SY 2017 and SY 2018.

RQ4: Is there a significant difference between female and male middle school students concerning a change in self-efficacy and perceptions toward school climates, as measured by SCS between SY 2017 and SY 2018?

$H_0$4: There is no significant difference between in female and male middle school students concerning a change in self-efficacy and perception toward school climates, as measured by SCS between SY 2017 and SY 2018.

H_a4: There is a significant difference between female and male middle school students concerning a change in self-efficacy and perception toward school climates, as measured by SCS between SY 2017 and SY 2018

A repeated measure ANOVA was employed using a matched design to assess the change in SY 2017 and SY 2018 variables (controlling variables of GPA, attendance, age, and gender, as measured by the PS® records model) between the psychological variables (self-efficacy and perceptions). An assumption of normality called for a procedural evaluation that adheres to the inclusion/exclusion criteria to screen responses from the DV to ensure that the analysis yielded valid results. To address this criteria's assumption, an analysis conducted on these parameters checked normality, differences amongst normal distributions, and sphericity of equal variances amongst cases. Also, verification check under the Levene's assessment such as the sphericity assumption and homogeneity of variance were tested to ensure that the proposed analyses yielded valid results for the data. Descriptive statistics, such as the mean and standard deviation, are

reported as an additional way to evaluate data. The inclusion of these descriptive statistics is also helpful in interpreting the statistical analyses for pair-wise comparisons of mean scores. Other statistical measurements assessed datasets for an equal/weighted number of matched subjects, noting that any unequal subjects sample sizes can cause unequal variances of confounding and extraneous issues, simple main effects, and equivalency issues. Therefore, each hypothesis concedes that self-efficacy and perceptions of school as measured by the SCS, the dependent variable, noting that all RQs' hypotheses necessitated the IV of GPA (only two levels). RQ2 considered attendance (two levels), RQ3 age (two levels), and RQ4 gender (two levels), as measured by PSR. These are the corresponding IVs.

The results were interpreted based on these parameters of this statistical analysis. Within the first analysis, there were no outside influences to alter changes in the IV or DV, thus, noting there were no confounding variables included in this pair-wise repeated measure analysis. Furthermore, any patterns showing interactions and associations held a continuous response variable and continuous categorical predictor variable. The predictor variables included GPA and attendance using a generalized linear model. However, an analysis conducted on the MVs age, and sex was done to examine for additional interactions and associations amongst the DV. An assessment of this interpretation viewed interaction of the key parameters set at a 95% confidence interval. Also, the SPSS procedural analysis conducted a repeated measure linear regression model to help explain if there is a statistically significant difference or change found in the variability of self-efficacy or perceptions over time (R^2). Lastly, the analysis established the simple main

effect/time effect (β) on GPA, attendance, age, and genders and determined interactions between self-efficacy or perceptions.

Therefore, this repeated measure analysis and a general linear regression model was used to assist in the interpretation of the Pearson correlation coefficient of *(R)* for all variables, a beta (β) level analysis main effect. The standard error for the main effects, and an assessment of the null hypothesis to determine if possible interactions exist between the MV's. Additionally, the standard error, the covariance, degrees of freedom, and the variance explained under the *F* test family were interpreted. Lastly, the statistical significance values were used to determine statistical relationships or associations between the IV and the DV.

Threats to Validity

External Validity

The ideology behind external validity refers to the degree to which a study's results could be generalized to reflect the setting, SES, and IQ on participants (Creswell, 2009). Many threats were eliminated seeing that this study is nonexperimentally offered preexisting and postexisting datasets on a single group using a matched sample design (Green & Salkin, 2008). The external validity threats that bypassed included: analyzing and testing interactions, time effects, and inferences upon differences shown over time (Creswell, 2009). The uniqueness of this study's sample is that the archival data came from a single environment on a defined group of participants. Therefore, this matched sample design's inherent aim was to collect archival data to reduce the risk of

generalizability vehemently and to have generalized results on specified samples (Creswell, 2009). In this study, there were no unforeseen external threats.

Internal Validity

Internal validity refers to the methodological examination of sample selection as it relates to the degree to which the results of the study can be inferred toward other research questions while acknowledging a reasonable degree of error. Thus, the results should adequately contribute to answering queries drawn from the psychological variables in this study. For instance, measurements upon preexisting datasets hold the probability of unseen confounding issues when safeguards are applied to minimize errors during the sample selection process. In this case, many of these expected threats invalidity found in this study consisted of the sample selection within/ between interactions and the statically linear regression. A recommended response to address this problem is to use a randomly selected sample to minimize selection biases (Creswell, 2009). However, noting that nonexperimental studies cannot randomly assign cases, this study can serve as an internal threat. A random sample assumes that each individualized case has the same probability of being selected into the sample (Gravetter & Wallnau, 2016). Consequently, Creswell (2009) asserts that random sampling may have negative impacts on internal validity; however, when the researcher uses nonrandom selection, the probability across individuals is thought to remain constant.

Construct Validity

This research may have been affected by construct validity, noting the extent to which an instrument does not measure the content it was intended to measure. The

significance of this kind of validity rest upon the capability to subscribe to the incumbent theoretical framework (Creswell, 2009). As introduced in Chapter 1 and 2, the theoretical groundwork position on underachieving student's academic self-concept makes known the assumption about educational experiences, noting they can either increase or decrease a student's efficacy and perceptions of school climates. The construct approach to self-efficacy and perceptions of school environments as measured by the SCS, was implemented to tie the IV and intertwine the theoretical framework upon this study. Green and Salkin (2008) recommend that attaining a method may be through a repeated measure pair-wise analysis on the study above's variable. Specifically, this dissertation was in search of inspection and examination of secondary data upon achievement outcomes to determine if a relationship could exist between self-efficacy and perceptions over time. As a result, within the time frame of this study, there was no extraneous circumstance upon the confounding variables found that would impact the expectation upon this study.

Ethical Procedures

In gaining access to archival data throughout SY 2017 and SY 2018, an informed consent letter/email and agreement of the dissemination to collect archival datasets was sent to the school superintendent. A copy of the superintendent letter to request existing datasets is available in Appendix A of this study. The response letter of consent and agreement from the school superintendent granting permission for retrieval of archival data from the director of technology is in Appendix B of this study. Also, an informed consent letter/email was sent to the PowerSchool® to request permission to reference their

company in my study is in Appendix C of this study. A follow-up response letter of consent to reference the PowerSchool® is in Appendix D of this study. The data use agreements and confidential agreement terms explaining the dynamics of the study, procedural guidelines for inclusion in the study and contact information for all inquiries, are placed in Appendix E of the study. Lastly, confidentiality as well as risk agreement forms are in Appendix F. American Psychological Association (2018) explains that ethically any treatments proposed in research projects with the intent of gathering archival data, adhere to mandates that researcher's apply and request institutional approval to conduct research, before collecting data. By adhering to this ethical issue, the data collection plan included and following terms from the IRB guidelines. The procedural guidelines noted, "participants including screening, consent, human protection training, and data collection, as well as any piloting, follow-up, debriefing, or sharing of research results" (Walden University, 2009, p. 1). Furthermore, there was no request to obtain a participant pool, noting that there was no recruitment procedure needed for this study.

Once gaining approval from the IRB, the request letters/e-mails were sent to the school superintendent requesting the exportation of archival datasets from the SCS and PS® records on students enrolled in the PABSS program. The ethical issue as it relates to the research problem rationale for gathering archival data on low-achieving participants will not be to marginalize them further; therefore, student's records will be guarded to maintain trust and respect of the participant's integrity (Creswell, 2009).

In adhering to ethical guidelines during the data collection, security methods were put in place to secure all records. I made known in the data agreement-the procedures for maintaining forms, records, securing all classified information, and guidelines for all individuals who have access to these datasets. The ethical issues within the archival dataset anticipate anonymity upon participants, the procedure for discarding archival data, and methods for interpreting data (Creswell, 2009). To adhere to these mandates, I numerically coded archival records of names of participants to maintain confidentiality, so the participants remain anonymous. Also, scores will be coded to represent and conceal identities of matched subjects. Archived data will receive codes with A SY 2017 for designated form and B SY 2018 for the other designated form in the pre and post datasets to distinguish between the two. Ethically, interpreting archival data will be an accurate account of the finding of this study. All information gathered will remain separate, secure, and confidential while separated informed consent will explain procedural guidelines for protecting archived data. I will discard all of the information about this study upon completion of the study.

Summary

The purpose of this quantitative study was to examine relationships between efficacy and attitude toward school, as measured by the SCS and school attendance, achievements, and demographics. Also, using archival data collected during SY 2017 and 2018 obtained from an urban middle school in the United States on participants enrolled in a PABSS program. An agreement between the school superintendent and researcher will have a clear understanding of the rules of confidentiality. Approval of this

proposal will come from the IRB and Walden's committee members' granting permission to collect archival data. The purpose of this study is to collect archival scores from the SCS and scores from the PS® records to show relationships that exist when groups are compared to show if correlations exist between groups. Scores will be tracked and analyzed within a six-month period. The statistical analysis affords a repeated measure design on archived results from SCS and PS® records. Also, the SPSS will be used to measure and provide descriptive data on the participants' efficacy, attitude toward school, attendance, discipline, gender, age, and grades. In Chapter 4 of this study, I will discuss the results displayed from the archival data from the SCS and the PS® records.

Chapter 4: Results

Introduction

The purpose of this quantitative, nonexperimental research study was to determine if there were different relationships between middle school students' enrolled in the PABSS program, achievement outcomes, and changes in the students' perceptual efficacy of their school climate between SY 2017 and SY 2018. I used repeated measures ANOVA and correlation analysis to examine these relationships. I developed RQ1 to examine the relationship between GPA outcomes and change in self-efficacy and perceptions toward school climate, RQ2 to determine the association between attendance outcomes and change in self-efficacy and perceptions toward school climates, RQ3 to address the association between the MV of age (MV1) and change in self-efficacy and perceptions toward school climates, and RQ4 to examine the association between the MV of middle school students' gender (MV2) and their change in self-efficacy and perceptions toward school climates. Statistical tests with p values greater than 0.05 resulted in a failure to reject the null hypothesis of each research question.

This chapter will include the time frame, response rates, and screening of the data collection that encompassed my use of archival data in this study. Additionally, the chapter will include a discussion of the statistical procedure of the baseline descriptive and demographic characteristics. In closing, I will discuss the statistical assumptions, preliminary analysis, major findings, and results of the study.

Data Collection

Time Frame and Recruitment

In adhering to the federal and institutional guidelines, I sent an application to the Walden University IRB on October 26, 2017 to request permission to conduct this study. This application included a request letter sent to the superintendent to collect $N = 45$ archival records. Documentation of these request letters/e-mails sent to the superintendent can be found in Appendix A and the superintendent's letter granting permission to collect archival data in Appendix B. Also, documentation of letters/e-mails sent to PowerSchool® to request to reference the company can be found in Appendix C and consent to reference the PowerSchool® company is in Appendix D. An agreement to use data (see Appendix E) and a confidentiality agreement (see Appendix F) for the director of technology to release archival records was also part of the application process. Likewise, I included a copy of the SCS (see Appendix G) with the application. This application process mandated that I successfully complete the Human Research Protections training from the National Institute of Health's Office of Extramural Research. As a result, the Walden University IRB permitted me to conduct the study on December 7, 2017, with an IRB Approval Number of 12-07-17-0184355.

Response Rates

In using archival data for this study, I recruited no additional participants to collect data. After receiving approval from the IRB, I sent an e-mail to the director of technology for the study site on December 8, 2017, requesting secondary datasets containing 45 participants. On January 4, 2018, the director of technology finalized and

electronically exported me archival records containing 45 datasets of participants enrolled in the PABSS program during the SY of 2017 and SY of 2018.

My data analysis procedure included the use of the SPSS, Version 24.0 software package that is compatible with the Microsoft Windows to screen datasets. As a means to adhere to the assumptions discussed later in this chapter, I screened for any missing scores within the datasets that could hinder the data analysis process by performing frequency analysis on each variable. The responses had significant mean scores of equal variances from each of the compared samples, revealing no missing scores. Next, I conducted a statistical analysis for the assumption of normality and examined the distribution of independence among cases for skewness normality, illustrated by the probability plot values. An analysis was also conducted on the distribution sample sizes for skewness values of variables and this came back between -1.00 to +1.00 for the normality assumption, and therefore, addressing normality using the Levene's test for the equality of variances. I then conducted an examination on all archival datasets through SPSS on archival results from PSR and archival results from the SCS. The desired sample size for this study was estimated at 34 participants (see Faul et al., 2007). However, after screening datasets, I kept all the data resulting in a $N = 45$ or 100% response rate.

Discrepancies in Data Collection

In this process, I conducted an examination for discrepancies in the data collection plan. To ensure adherence to guidelines from the IRB approval to collect archival records, I received documentation showing that permission was granted from the

superintendent for the director of technology to release archival datasets to me. The director of technology exported clean data, which were all present and accurate and contained 45 participant datasets. The web-based data accounts of middle school students records came from the SCS and PS® records between SY 2017 and SY 2018. I performed an analysis of archival results on GPA, attendance, age, gender, self-efficacy, and student perceptions towards school, so there was no need to request participation pools and no need to amend the proposed plan because the data pool of archival datasets was sufficient. There were no discrepancies found in the datasets and no need to eliminate any of the participants in the study.

Baseline Descriptive and Demographic Characteristics

The sample of 45 participants was taken from students enrolled in the PABSS program in one Northeastern urban middle school in the United States during the SY 2017 and SY 2018. The PABSS program intervention provided low-achieving students with academic coaches, behavioral coaches, and school liaisons over two marking periods to meet the criteria of the study. I examined descriptive statistics for the IVs of GPA and attendance and demographic characteristics of the MVs on age and gender as they related to the target population for this study. The variables at hand were either ordinal or nominal. All of the IVs and MVs descriptors were broken down into eight sections to represent each level of the characteristic samples and percentages. The first and second section contained the demographic characteristics of the MV1 of age, and this category represented an age range of 11 to 14 years old between SY 2017 and SY 2018. The third section displayed the MV2 of 19 female (42.22%) and 26 male (57.78%)

students. The fourth and fifth sections illustrated the period of 45 days within the marking periods of SY 2017 and SY 2018 in which data were collected. The sixth and seventh section consisted of the GPA samples that ranged from 64.4–90.4. Lastly, the final section was representative of the target populations' demographic characteristics of 68.90% of the sample that either received at least one grade-level retention and 31.10% low-achieving students who did not receive grade-level-retention throughout any grade levels. Table 2 summarizes the descriptive demographic characteristics of the participants.

Table 2

Demographic Characteristics of the Study Sample (N = 45)

Characteristics	*N*	%
Age SY 2017		
11	4	8.90
12	10	22.20
13	22	48.90
14	9	20.00
Age SY 2018		
11	0	0
12	6	13.30
13	25	56.60
14	14	31.10
Gender		
Female	19	42.22
Male	26	57.78
Attendance SY 2017		
1.00 (27-35) days present	4	8.90
2.00 (36-39) days present	6	13.30
3.00 (40-45) days present	35	77.80
Attendance SY 2018		
1.00 (27-35) days present	1	2.22
2.00 (36-39) days present	6	13.33
3.00 (40-45) days present	38	84.44
GPA SY 2017		
1.0 GPA scores between (64.4-69.4)	9	20.00
2.0 GPA scores between (69.5-79.4)	27	60.00
3.0 GPA scores between (79.5-90.4)	9	20.00
GPA SY 2018		
1.0 GPA scores between (64.4-69.4)	6	13.33
2.0 GPA scores between (69.5-79.4)	28	62.22
3.0 GPA scores between (79.5-90.4)	11	24.44
Grade Level Retention		
Yes	31	68.90
No	14	31.10

Note. $N = 45$.

Study Results

Preliminary Data Analysis

In the preliminary data analysis screening, I tested sphericity violations and normality assumptions for the DVs to justify using the repeated measures ANOVA (see Green & Salkin, 2008). For DVs, skewness values between -1.00 to +1.00 indicated that

the data reached normal distribution. Q-Q (quantile-quantile) plots also indicated that the assumption of normality was met (see Green & Salkin, 2008). Skewness values for the composite scores were as follows: SY 2017 efficacy = 0.37, SY 2018 efficacy = 0.47, SY 2017 perceptions = 0.21 and SY 2018 perceptions = 0.98. These values indicated that the DVs did not violate the assumption of normality. Tests for equality of variance for SY 2017/2018 efficacy and SY 2017/2018 attitude found no significant differences (efficacy, $p = 0.06$ and perceptions, $p = 0.52$). The skewness values and equality of variance results indicated that the results yielded from parametric tests are valid.

An a priori sample size estimate showed that $N = 34$ participants would allow for a Pearson correlation of at least $r = 0.50$ to detect and to achieve 80% power.
In most cases, the sphericity is always in violation when computations on the within-subject factors and between-subject factors have Type I or Type II errors (Green & Salkin, 2008). However, when a researcher uses two-levels, there is no possibility of violating sphericity, since the scores hold only two variances and one covariance that is measured two times (Green & Salkin, 2008). For example, in verifying this assumption under the Levene's assessment of homogeneity of variance or homoscedasticity, a researcher can assess this assumption and the null hypothesis by measuring if the population variance is equal (Green & Salkin, 2008).

Statistical Analysis Findings

I carried out a one-way repeated measure ANOVA with a statistical significance of $p < .05$. The IVs were archival results on GPA and attendance while the MVs were of archival records on age and gender. The DVs were used to assess archival results

gathered on responses from the SCS on self-efficacy and perceptions toward school climates. In this study, I examined if there was a significant relationship first between SY 2017 and SY 2018 GPA and then between attendance to check for changes in self-efficacy and perceptions toward school climates. In conducting a two-way repeated measure, I set the statistical significance at $p < .05$ on the third and fourth research questions to assess for a significant relationship between SY 2017 and SY 2018 age groups and gender when assessing for changes in self-efficacy and perceptions toward school climates.

The key variables setting was on an ordinal and nominal scale for GPA, attendance, age, gender, self-efficacy, and perceptions toward school climate. The independent variables and moderating variables mean scores examined for statistical relationships that exist over time within PS® records during the SY 2017 and SY 2018. PS® measurement produced pre- and post scores on GPA, days of attendance, age, and gender (Porter, 2000). The GPA scores ranged was 64.4-90.4 2017 SY mean of 74.83 (*SD* = 4.43) and 2018 SY mean of 75.38 (*SD* = 5.23). Attendance scores ranged from 27 to 45 with 2017 SY mean of 41.18 (*SD* = 3.78) and 2018 SY mean of 42.42 (*SD* =2.46). Ages ranged from 11 to 14 with 2017 SY mean of 12.80 (*SD* = .869) and 2018 SY mean of 13.18 (*SD* = .650).

The DV mean scores examined statistical relationships that exist over time within SCS during the SY 2017 and SY 2018. Archival datasets in this study, items from the SCS questionnaire of 49 responses from the seven domains, were then broken down into two groups of self-efficacy and perceptions towards school climates. Self-efficacy

covered questions under the areas of "Morale in School, Student Relationships, and Parental Support" (NJDOE, 2012, p. 27). For this entire sample, 2017 self-efficacy scores ranged from 77 to 125 with a mean of 99.38, (*SD* = 11.22) and 2018 self-efficacy scores ranged from 61 to 146 with a mean of 100.93, (*SD* = 15.25). Additionally, perceptions towards school climates enveloped questions about "physical environment, teaching and learning, safety, and the emotional environment" (NJDOE, 2012, p. 27). Also, for this entire sample, 2017 perceptions scores ranged from 63 to 113 with a mean of 88.18, (*SD* = 10.84) and 2018 perceptions scores ranged from 68 to 131 with a mean of 92.40, (*SD* = 11.96). The descriptive statistics for the independent and dependent variables are in Table 3.

Table 3

Descriptive of Means and Standard Deviations for Variables of Self-Efficacy and Perceptions, GPA, Attendance, Age, and Gender

Variables	*N*	SY 2017 *M*	SY 2017 *SD*	SY 2018 *M*	SY 2018 *SD*
GPA	45	74.83	5.43	75.38	5.23
Attendance	45	41.18	3.78	42.42	2.46
Age	45	12.80	.869	13.18	.650
Gender					
Female	19				
Male	26				
Perceptions Toward School Climates (DV)	45	99.38		100.93	15.25
Self- Efficacy (DV)	45	88.18		92.40	11.96

The first analysis tested for a significant association between GPA and changes in self-efficacy, or perceptual attitudes toward school climates. The beta (β) level, confidence intervals lower and upper, and *p* values of the DV and independent variables are in Table 4 and no significant associations found.

Table 4

Repeated Measure Correlations on GPA, Self-Efficacy, Perceptions, Beta Level, Confidence Intervals Lower and Upper, and p Value

		95% Confidence Interval (*CI*)		
Assessment of Correlations	β	*CI Lower*	*CI Upper*	*p*
GPA and Self-Efficacy	0.01	-0.01	0.03	0.36
GPA and Perceptions	-0.006	-0.03	0.02	0.67

The second analysis tested for a significant association between attendance and changes in self-efficacy, or perceptions toward school climates. The beta (β) level,

confidence intervals lower and upper, and *p* values the dependent variable and independent variables are in Table 5 in which there were no significant associations found.

Table 5

Repeated Measure Correlations on Attendance, Self-Efficacy, Perceptions, Beta Level, Confidence Intervals Lower and Upper, and p Value

		95% Confidence Interval (*CI*)		
Assessment of Correlations	*β*	*CI Lower*	*CI Upper*	*p*
Attendance and Self-Efficacy	-0.007	-0.10	0.08	0.88
Attendance and Perceptions	-0.05	-0.15	0.08	0.37

The third analysis tested for significant correlations between age and changes in self-efficacy, or perceptions toward school climates. The beta (*β*) level, confidence intervals lower and upper, and *p* values the dependent variable and independent variables are in Table 6 in which there were no significant associations found.

Table 6

Repeated Measure Correlations on Age, Self-Efficacy, Perceptions, Beta Level, Confidence Intervals Lower and Upper, and p Value

		95% Confidence Interval (CI)		
Assessment of Correlations	*β*	*CI Lower*	*CI Upper*	*p*
Age and Self-Efficacy	-3.04	-7.64	1.56	0.19
Age and Perceptions	-0.66	-4.62	3.30	0.74

The fourth analysis tested for a significant difference between males and females differences in self-efficacy, or perceptions toward school climates. The mean difference, confidence intervals lower and upper, and p values the dependent variable and independent variables are in Table 7 where no significant difference in efficacy was noted, however males were significantly lower than females on perceptions.

Table 7

Repeated Measure Correlations Males and Females, Self-Efficacy, Perceptions, Mean Difference, Confidence Intervals Lower and Upper, and p Value

		95% Confidence Interval (*CI*)		
	MD	*CI Lower*	*CI Upper*	*p*
Gender (M/F) and Efficacy	-3.97	-12.04	4.11	0.33
Gender (M/F) Perceptions	-7.03	-13.58	-0.49	0.04

Major Findings

A Pearson correlation between the dependent variables from first and second assessments for efficacy and perceptions were consistent with the proposed sample size estimates (efficacy: $r = 0.53$, $p < 0.001$; perceptions: $r = 0.52$, $p < 0.001$). The sample consisted of 19 females and 26 males and had an average age of $M = 12.80$, $SD = 0.87$ with a range of 11 to 14 years. For the entire sample, the mean 2017 GPA was $M = 74.83$, $SD = 5.43$ and the mean 2018 GPA was $M = 75.38$, $SD = 5.23$. The difference in 2017 and 2018 GPA was statistically significant (mean difference = 0.55, *SD* of mean difference = 0.98, $t = 3.78$, $df(44)$, $p < 0.001$). Additionally, males ($M = 7.19$, $SD = 12.02$) and females ($M = 0.16$, $SD = 8.69$) did show a significant difference in change in perception of school environment (mean difference = -7.03, 95% CI: (-13.58, -0.49), $t = -2.17$, $df(43)$, $p < 0.04$). A snapshot of the repeated measures analysis and correlations between GPAs and genders will be in Table 8.

Table 8

Summary of Repeated Measures Analysis of Correlations Within and Between Variables on GPAs and Genders

Variables	*SDMD*	*t*	*df*	*p*
2017-2018 GPAs	0.98	3.78	44	0.001
2017-2018 M/F Perceptions	-7.03	-2.17	43	0.04

Note. N = 45.

Research Questions Results

I conducted a data using a one-way and two way repeated measure ANOVA. I used this statistical procedure repeated measure analyses to measure pre- and post scores from SY 2017 and SY 2018. This repeated measure also, analyses the outcomes of middle school students enrolled in the PABSS program.

Research Question 1

The initial analysis examined the impacts on 2017 and 2018 GPAs, with the exclusion of MV's of age and gender. The H_0 and H_1 within this analysis carried out as follows:

RQ1: Is there a significant difference between SY 2017 and SY 2018 on GPA outcomes of middle school students enrolled in the PABSS program as measured by PS® records, and change in self-efficacy and perceptions toward school climates as measured by SCS?

$H_0$1: There is no significant difference between SY 2017 and SY 2018 on middle school students' GPA outcomes as measured by PS® records and

students' change in self-efficacy and perception toward school climates as measured by SCS over SY 2017 and SY 2018.

H_a1: There is a significant difference between SY 2017 and SY 2018 on middle school students' GPA outcomes, as measured by PS® records and students' change in self-efficacy and perception toward school climates, as measured by SCS over SY 2017 and SY 2018.

Change in self-efficacy between SY 2017 and SY 2018 was not significantly associated with a change in GPA (β = 0.01, 95% *CI*: (-0.01, 0.03), $p = 0.36$; Figure 1); therefore, it failed to reject the null hypothesis. The change in perception of school environment also showed no significant association GPA (β = -0.006, 95% *CI:* (-0.03, 0.02), $p = 0.67$; Figure 2); therefore, the null hypothesis could not be rejected.

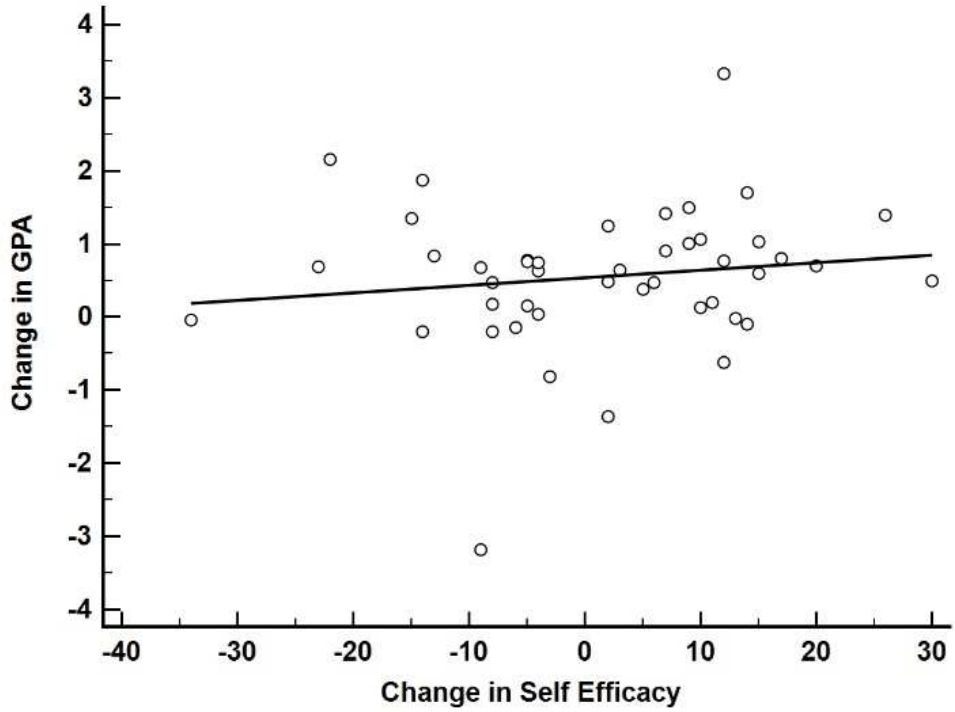

Figure 1. Linear association of 2017 and 2018 self-efficacy and GPA.

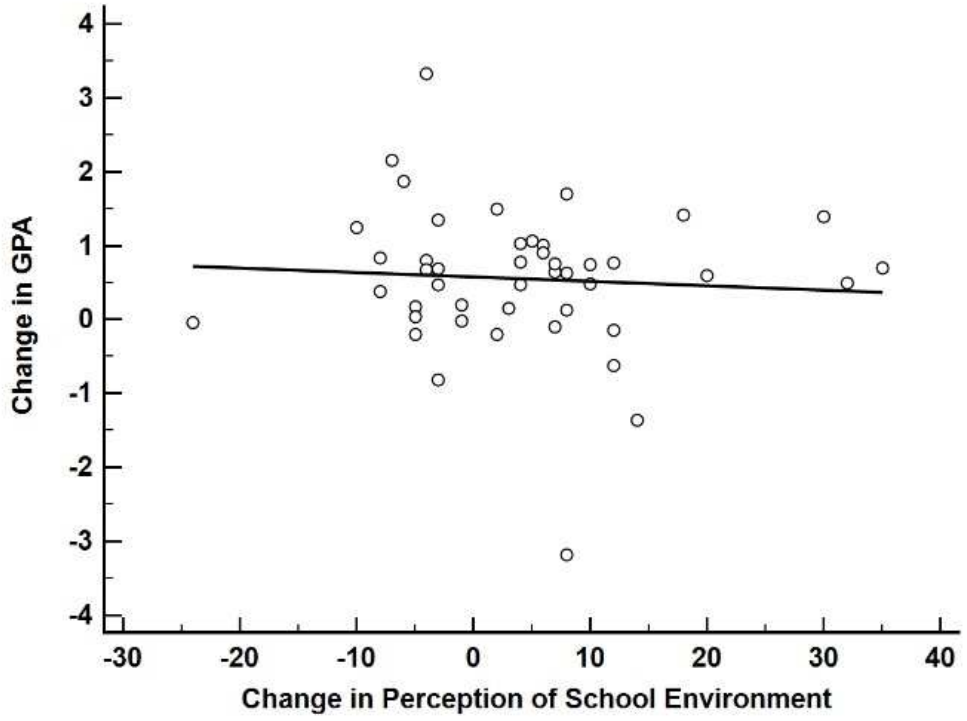

Figure 2. Linear association of 2017 and 2018 perception and GPA.

Research Question 2

In the second analysis examine the impacts of 2017 and 2018 attendance, with the exclusion of MVs of age and gender. The H_0 and H_1 within this analysis carried out as follows:

RQ2: Is there a significant difference between SY 2017 and SY 2018 attendance outcomes of middle school students enrolled in the PABSS program, as measured by PS® records and change in self-efficacy and perceptions toward school climates as measured by SCS?

$H_0$2: There is no significant difference between SY 2017 and SY 2018 middle school students' attendance outcomes, as measured by PS® records

and students' change in self-efficacy and perception toward school climates, as measured by SCS.

H_a2: There is a significant difference between SY 2017 and SY 2018 middle school students' attendance outcomes, as measured by PS® records and students' change in self-efficacy and perception toward school climates, as measured by SCS.

Change in self-efficacy did not show a significant association with a change in attendance (β = -0.007, 95% *CI*: (-0.10, 0.08), $p = 0.88$; Figure 3); therefore, the null hypothesis was not rejected. The perception of school environment also showed no significant association attendance (β = -0.05, 95% *CI*: (-0.15, 0.08), $p = 0.37$; Figure 4); therefore, the null hypothesis was not rejected.

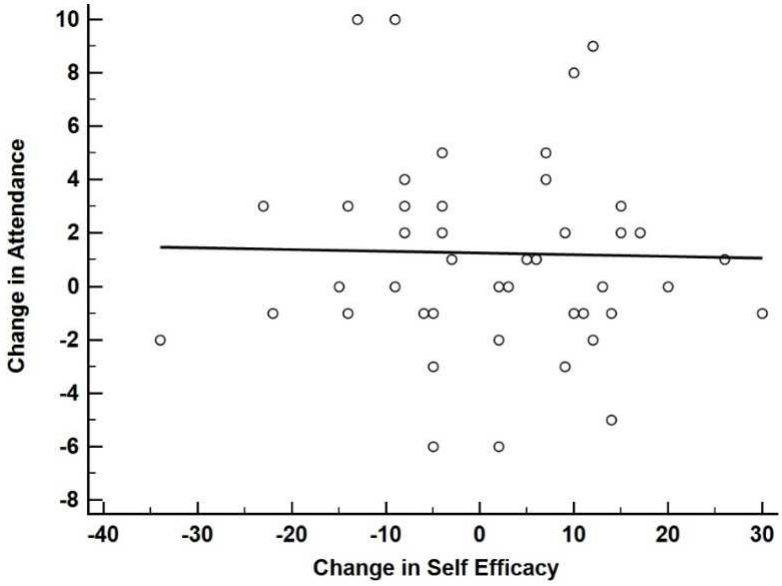

Figure 3. Linear association of 2017 and 2018 self-efficacy and attendance.

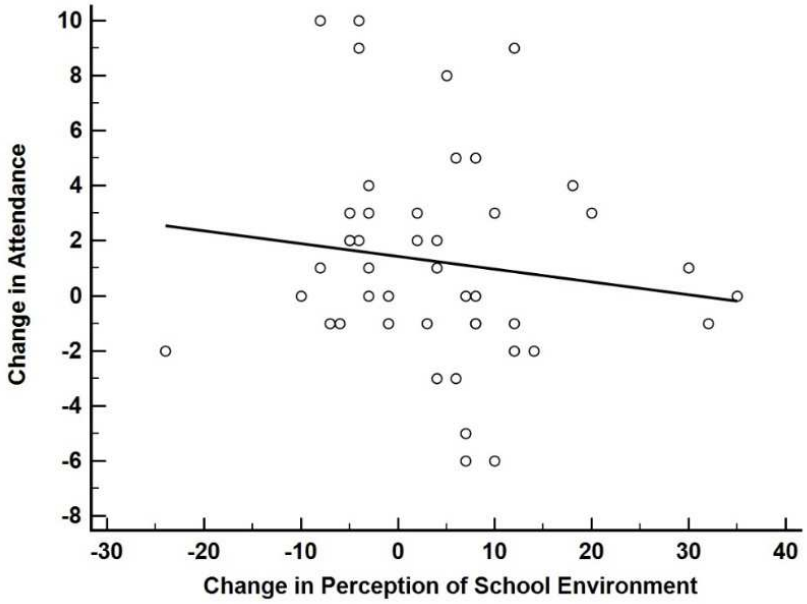

Figure 4. Linear association of 2017and 2018 perceptions and GPA.

Research Question 3

In the third analysis performed on the MV1 of age examined indirect changes between that impacts self-efficacy and perceptions toward school.

RQ3: Is there a significant association between middle school students' age with a change in self-efficacy and perceptions toward school climates as measured by SCS between SY 2017 and SY 2018?

$H_0$3: There is no significant association between middle school students' age, and change in self-efficacy and perception toward school climates, as measured by SCS between SY 2017 and SY 2018.

H_a3: There is a significant association between middle school students' age and change in self-efficacy and perception toward school climates, as measured by SCS between SY 2017 and SY 2018.

Age was not associated with change in self-efficacy (β = -3.04, 95% *CI*: (-7.64, 1.56), $p = 0.19$; Figure 5); therefore, the null hypothesis was not rejected. The change in perception of school environment also showed no significant association (β = -0.66, 95% *CI*: (-4.62, 3.30), $p = 0.74$; Figure 6); therefore, the null hypothesis was not rejected.

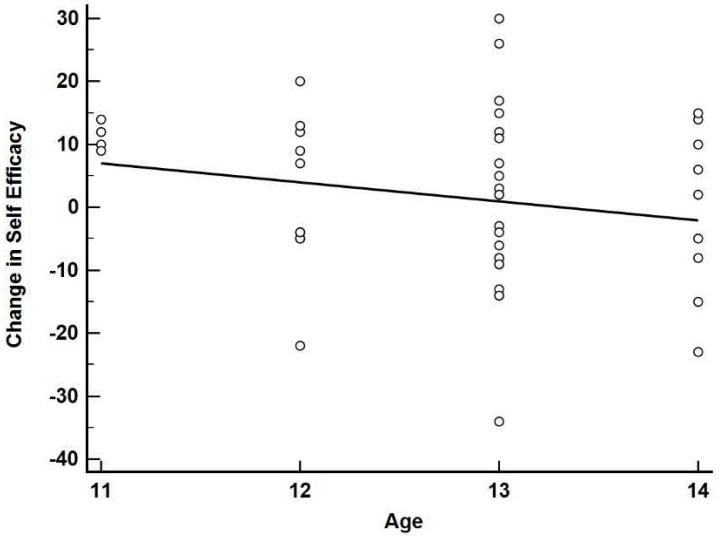

Figure 5. Linear association between self-efficacy change and age.

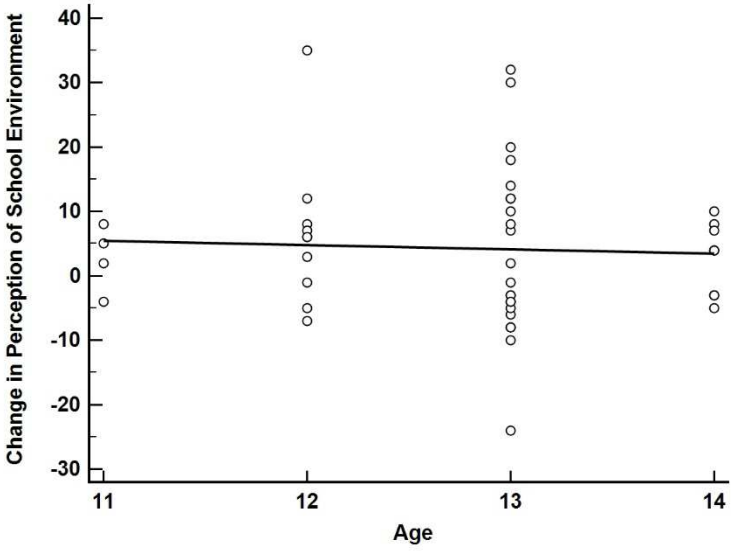

Figure 6. Linear association between perceptions and age.

Research Question 4

In the final analysis using a repeated measure pair-wise analysis examined for indirect changes in the MV2 of sex difference between self-efficacy and perceptions toward school.

RQ4: Is there a significant sex difference in females and males for change in self-efficacy and perceptions toward school climates as measured by SCS between SY 2017 and SY 2018 among middle school students?

$H_0$4: There is no significant sex difference in females and males for change in self-efficacy and perception toward school climates, as measured by SCS between SY 2017 and SY 2018.

H_a4: There is a significant sex difference in females and males for change in self-efficacy and perception toward school climates, as measured by SCS between SY 2017 and SY 2018.

Males (M = 3.23, SD = 14.00) and females (M = -0.74, SD = 12.17) showed no significant difference in self-efficacy change (mean difference = -3.97, 95% *CI:* (-12.04, 4.11), t = -0.99, df(43), p = 0.33); therefore, the null hypothesis was not rejected. However, males (M = 7.19, SD = 12.02) and females (M = 0.16, SD = 8.69) did show a significant difference in change in perception of school environment (mean difference = -7.03, 95% *CI*: (-13.58, -0.49), t = -2.17, df(43), p = 0.04)); therefore, the null hypothesis was rejected. Sex differences for change in self-efficacy and perception of school environment are shown in Figure 7.

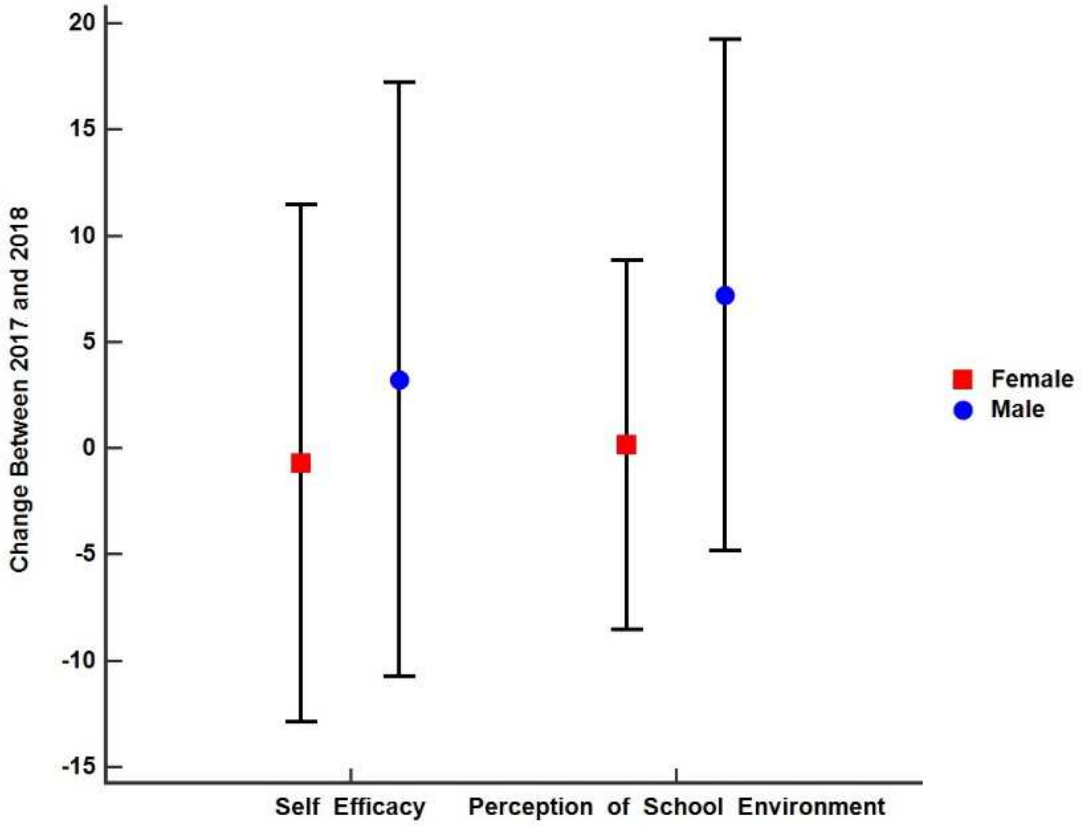

Figure 7. Sex differences for change in self-efficacy and perceptions.

Summary

Based on the results of this study, there was no significant evidence to support that there was a relationship between middle school students enrolled in the PABSS program achievement outcomes and self-efficacy. Research Question 1 set in examining for a relationship amongst middle school students, 2017 and 2018 GPA outcomes, as it related to changes in self-efficacy and perceptions toward school environments. The research question created as a way to compare one-level of the IV (2017 and 2018 archival results on GPAs) without considering the effects. Although, there was significant evidence to support changes found in 2017 and 2018 GPAs outcomes in

middle school students, this slight interaction does not impact the strength of the study since there was not a significant relationship between the IV or changes in the DVs (self-efficacy and perceptual attitudes toward school climates).

Consequently, the analysis in this study failed to reject the null hypothesis. These subsequent research questions, which analyzed the effects or associations on the rest of the variables observing for differences between relationships to show changes in self-efficacy and perceptions toward school environment in middle school students. In regards to the second research question, the objective was to examine interactions amongst middle school students' attendance, as there was no evidence to support this claim which failed to reject the null hypothesis. Additionally, the third research question intended to investigate effects on middle school students age, as there was no evidence to support significant differences which failed to reject the null hypothesis. Lastly, research question four focal point was to detect differences in male and female middle school students and changes between 2017 and 2018 in their self-efficacy and perceptions of school. Although, there was no evidence to support significant differences in middle school male and female students as it related to self-efficacy, significant evidence of differences found relating to changes in male and female perceptions of school environments. In this analysis, there was a rejection of the null hypothesis. As a result, in accounting for the variables of middle school students enrolled in the PABSS program. During SY 2017 and SY 2018 archival datasets on GPAs, attendance, age, gender, reported no significant evidence found to suggest that the PABSS program related to changes in middle school students-self-efficacy or-perceptual attitudes toward school

climates. The variables present in research questions one and four showed a relationship in 2017 and 2018 GPAs and changes between male and female groups could account for increases found in males perceptions toward school climates based on the time of males being in the PABSS program.

In Chapter 5, I will include a summary of this study. I will discuss the interpretation of the research questions and results. Additionally, I will present the recommendations based on the study's limitations strengths and weaknesses along with the implications of this study. Lastly, Chapter 5 will conclude with the implication for positive social change. Also, the implications for methodological, theoretical, and recommendations for practice.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The purpose of this quantitative, nonexperimental study was to examine the relationship between archival datasets containing achievement outcomes and efficacy among middle school students attending a Northeastern school in the United States, that were enrolled in the PABSS program during SY 2017 and SY 2018. In this study, I sought to investigate relationships between GPA, attendance, age, and gender, as measured by PS® records, and changes in efficacy and perception towards school climate, as measured by the SCS, in low-achieving and retained urban middle school students enrolled in the PABSS program. I developed four research questions to guide this study:

RQ1: Is there a significant difference between SY 2017 and SY 2018 on the GPA outcomes of middle school students enrolled in the PABSS program, as measured by PS® records, and change in self-efficacy and perceptions toward school climates, as measured by SCS?

RQ2: Is there a significant difference between SY 2017 and SY 2018 attendance outcomes of middle school students enrolled in the PABSS program, as measured by PS® records, and change in self-efficacy and perceptions toward school climates, as measured by SCS?

RQ3: Is there a significant association between middle school students' age with a change in self-efficacy and their perceptions toward school climates as measured by SCS between SY 2017 and SY 2018?

RQ4: Is there a significant difference between female and male middle school students' changes in self-efficacy and perceptions toward school climates as measured by SCS between SY 2017 and SY 2018?

The results of this study indicated a statistically significant relationship between the mean difference in changes in SY 2017 and SY 2018 GPA outcomes in middle school students enrolled in the PABSS program. However, there was no mean difference found between 2017 and 2018 GPAs and changes in self-efficacy and perceptions toward school climates outcomes. Furthermore, there was no mean difference found between 2017 and 2018 attendance and changes in self-efficacy and perceptions toward school climates outcomes. There were also no differences observed between self-efficacy and perceptions attitude amongst age groups. Although results did not show significant differences between male and female self-efficacy, the findings did show that male students had a statistically significant increase in their perceptual attitudes of school climates compared to female students. My analysis of the data found females to have statistically significant decreases in their perceptual attitudes of school climates.

This chapter will include a description and a review of the research questions alongside my interpretation of the findings of this study. I will also provide a discussion and explanation of my interpretation of critical findings as they relate to peer-reviewed literature and the theoretical conceptual framework presented in Chapter 1 and 2 of this study. Furthermore, in this chapter, I will address the limitations to the generalizability, my recommendations for action, and my recommendations for future research of this study. I will then present potential implications for social change in regards to

methodological, theoretical, and empirical practice. This chapter will conclude with a summary and conclusion.

Interpretation of Findings

2017-2018 GPAs Self-Efficacy and Academic Self Concept

Literature review and research findings. My first analysis resulted in evidence showing that there was no statistically significant mean difference found in archival results of SY 2017 and SY 2018 GPAs and changes in low-achieving or retained middle school students' self-efficacy or perceptual attitudes toward school climates. These results confirmed the previous research of Braun et al. (2016) and Kirk et al. (2016) who found that low-achieving middle school students with lower GPAs risk developing psychosocial problems of poor self-efficacy and poor academic self-concept. Many researchers have found associations between low achievement, poor self-efficacy, and school failure and increased levels of poor attendance and high school drop rates (Ferrara, 2015; Gewertz, 2012; Moran, 2013). However, evidence from my first analysis also revealed a statistical association between increased changes in SY 2017and SY 2018 GPAs over time when students enrolled in the PABSS program. These results offer a counterclaim that expands on Lamote et al.'s (2014) belief that closing achievement gaps in low-performing via academic interventions will lead to academic growth and gains in achievement over a span of time.

The finding from this study also corroborated by Haselden et al. 's (2012) finding on school-based interventions designed to increase self-efficacy in low-performing students. For example, low-performing students who received a 9-week training

intervention were found to show increased levels of self-efficacy and increases in academic achievement (Haselden et al., 2012). In contrast, Hanson et al. (2012) claimed that intervention-based protocols were not found to significantly increase academic achievement outcomes, noting that evidence showed that character building training does not statistically change low-performing students outcomes. However, other researchers believe that offering academic interventions (i.e., providing support services via academic coaches, behavioral coaches, and school liaisons) can positively improve the outcomes of low-achieving or retained middle school students (Andrewartha & Harvey, 2014). Consequently, the lack of research conducted on archival datasets of low-achieving or retained middle school students might provide a rationale for this particular finding in this study that shows a correlation between the PABSS program and GPAs over time.

Theoretical framework and research findings. As I previously discussed, the theoretical framework for this study was Bandura's (1977) self-efficacy theory, which suggests that student's social learning experiences arrive from social connections in the student's immediate environment. In turn, social influences from teachers, parents, peers, and the community are responsible for shaping a student's perceptual attitude toward school climates (Hoigaard et al., 2015). Within this scope, an individual's belief in their academic self-concept is contingent upon whether learning experiences are positive or negative (Bandura, 2007). The theoretical interpretation based on previous literature suggests that students' academic capabilities are contingent upon their perceptual self-

efficacy and belief in themselves that they hold the ability persevere through challenges and exude confidence to succeed under pressure (Bandura, 1977).

The academic self-concept frameworks have been previously researched with researchers mainly focusing on the perception a student has about their views of school as it relates to social relationships (Bandura, 2000). The school of thought on a student's mastery of experiences theorizes that such experiences entwine into a student's academic self-concept (Bandura, 2007). The transitional changes that low-achieving students encounter can directly impact their academic self-concept. I would suggest that researchers in the educational field examine low-achieving students' self-efficacy and perception of school environments.

Additionally, my finding showed no significant differences found in relationships between student self-efficacy and their perception of school environments extends knowledge upon the psychological zeitgeist of previous research that focused on low-achieving or retained middle school students (Ferrara, 2015; Gewertz, 2012; Moran, 2013; Song et al., 2015). This finding also addresses one area in professional research that has been overlooked and not previously investigated concerning archival results on low-achieving students' self-efficacy and perception of school environments (see Lane et al., 2014; Demanet & Van Houtte, 2013). An expansion into research, could be further explained by focusing on tracking archival data on low-achieving or retained middle school students who might be experiencing low-levels of self-efficacy when compared to student's that are higher-achievers.

2017-2018 Attendance and Retained Students Self-Efficacy

Literature review and research findings. My second analysis resulted in evidence revealing that there was no statistically significant mean difference found in archival results of SY 2017–SY 2018 attendance and changes in low-achieving or retained middle school students' self-efficacy or perceptions toward school climates. Previous researchers had hypothesized that underachievement found in adolescents that are held back a grade level negatively impacts attendance outcomes and their perceptual attitude toward school (Birioukov, 2016; Lynch, 2013). Moreover, other literature linked self-doubt and negative self-images to absenteeism, stating that in some cases students encounter frustration or feel stress due to tedious classroom instruction, and in turn, adopt behaviors to escape that learning environment (Connolly, 2017). School environments offer students an opportunity to make a natural connection via support from parents, peers, and teachers; in some cases, students will do well regardless. However, previous empirical researchers reported that when school-disconnections and when academic support is nonexistent, this can often cause students to become disengaged with school environments, which in turn results in low attendance rates (Fall & Roberts, 2012). School failure can negatively impact students' academic self-concept when they perceive they lack academic support from teachers, peers, and parents (Appelrouth et al., 2017).

This interpretation disconfirmed the findings of VanderPlaat (2016) who argued that community-based prevention programs that target at-risk students engaging in truancy and absenteeism found that positive relationships were shown between school-based-services and academic achievement and attendance outcomes. In this study

regarding the archival results of SY 2017– SY 2018 attendance, I found no statistically significant changes in low-achieving or retained middle school students' self-efficacy or perceptions toward school climates.

Theoretical framework and research findings. The theoretical foundation of self-efficacy bridging into a students' academic self-concept and emotional state of mind when negative attitudes toward school dissatisfaction supported finding that correlated with high rates of absenteeism (Niehaus et al., 2012). According to the framework of Bandura and Locke (2003), a student's physiological state of mind can impact their emotional bearing to sustain when they lack the confidence required to execute the task at hand. Within this scope, preconditions where student's physiological state of mind may be in jeopardy when they are encountering grade-level retention (Bandura, 2000). The theoretical interpretation was that student's who lack academic support are often less likely to meet annual academic standards and report feeling poor self-efficacy and far less adequate in school environments (Niehaus et al., 2012).

Furthermore, Niehaus et al. (2012) found that threats to students' academic self-concept have been linked to poor standardized scores and increased levels of students feeling poor self-efficacy and inadequacies when compared to their counterparts. Similarly, Connolly (2017) who theorized that when students experience self-doubt, it has been found to emotionally hinder their perceptions of themselves, in turn causing them to become counterproductive when they believe that they will perform poorly. On the other hand, in an expansion of Bandura's self-efficacy theory, Phan and Ngu (2016) noted that a student's capabilities lie in believing in themselves to be structured,

organized, and focused on attaining the concepts presented to them. Consequently, underachieving students who are held a grade-level behind their peers will adversely develop patterns in which they lack the motivation to execute a task, often becoming more anxious, withdrawn, or showing signs of low self-esteem (Bandura, 1977).

The theoretical foundation purports social learning is the gateway into a student's academic self-concept, mastery experiences, and emotional state of mind. Socially, one of the leading causes of absenteeism found in student's with lower academic self-concept and lower academic achievement was environmental factors of a negative association between families from lower SES and who lack parental involvement (Mallett, 2014; Parr & Bonitz, 2015; Reid, 2012). Based on the framework by Bandura's (1977) behavioral learning arrives from an individual's adaptiveness of social behaviors, to learn and conform to behaviors modeled before them. In some cases, increased absenteeism found in students required to miss school to tend to home responsibilities via babysitting younger siblings or working to assist with household expenses (Skinner et al., 2013).

Also, researchers have shown that absenteeism was linked to a lack of academic support due to single family households where one parent is working more than one job (Mallett, 2014). An interpretation corroborates suggestions from Howardson and Behrend's (2015) theory, confirming that students' self-efficacy is contingent upon guidance from external environments (school and home environments) to a shape a student's academic self-concept to be capable of sustaining in versatile situations. Therefore, based on this theoretical framework, the scope could imply that archival

results on low-achieving students attendance outcomes and perceptual efficacy are an indication of social influences upon their academic self-concept and social development.

2017-2018 Moderating Variables of Age and Sex

Literature review and research findings. Lastly, in the third and fourth analysis, I sought to examine correlations between age and sex for changes in 2017-2018 on archival results of middle school students' perceptual efficacy. My analysis resulted in evidence revealing that there was no statistically significant mean difference found in archival results of 2017-2018 age and changes in underachieving middle school students perceptual efficacy. Also, my fourth analysis resulted in evidence that was no statistically significant mean difference found in archival results between 2017-2018 middle school male and females students' self-efficacy. However, evidence from my analysis revealed there was a significant difference shown in changes 2017-2018 middle school students male and females perceptions of school climates. My analysis, showed evidence of increases found in males' perceptions toward school climates. Consequently, my finding revealed that there were decreases found in female s' perceptions toward school climates.

Prior research in this area could explain the mixed results in my study and argue that significant findings can be expanded through literature to offer additional insight into males and females perception of the school. Previous research by Mann et al. (2015), confirmed that there was significant finding showing relationships between academic failures found in middle school females and lower-levels of perceptual efficacy found in middle school females, when compared to their peers. On the contrary to this study, in

this case study, findings suggested that African American males are more likely to experience academic failure also to show decreased levels of self-efficacy, self-perceptions, self-concepts, and self-esteem, when compared to their counterparts (Wilson, 2014). Similarity, female students and male students between the school of age 11-15 also, residing in urban settings were found to have lower GPA before receiving academic interventions (Attwood & Croll, 2015; Braun et al., 2016).

Researchers have duly noted that school failure is a predictor of lack of academic support during middle school years (Ferrara, 2015; Gewertz, 2012; Lane et al., 2014; Moran, 2013; Song et al., 2015). These findings can validate literature showing associations between students receiving positive academic support showed increases in a student self-concept of achievement as well as their perception of self-efficacy (Moran, 2013). To further elaborate on this study, achievement outcomes found in middle school students receiving active social support from teams of academic/behavioral coaches and school liaisons showed a positive increase in their academic self-concept and achievement outcomes (Harn et al., 2015).

Theoretical framework and research findings. These findings confirmed the theoretical foundation that provides evidence-based approaches prescribed to improve underachieving middle school student s' perceptual self-efficacy. Based on this framework by Bandura and Locke (2000), noted that underachieving students benefit from role models who offer support (e.g., academic/behavioral coaches and school liaisons) to assist in developing self-regulation in a student's academic self-concept. Positive or negative perceptual beliefs toward a student's academic self-concept can be

weak or strong depending on the challenge of the classroom activity (Bandura, 2007). Social persuasion and verbal persuasion can negatively embed thoughts within an underachieving student's brain, but studies have shown that academic coaches can rewire self-confidence through encouraging positive feelings of self-worth and confidence (Connolly, 2017; Leland, 2015). Finding in this case corroborated that retained students often experience a poor sense of self-worth when failing to master academic content, through academic support, the underachieving-student can master challenges and experience a greater understanding of their academic self-concept (Matheson, 2015).

Theoretically Bandura (1997) pointed out that self-efficacy aligned with social learning theory groundwork provided a new foundation for this study in regards to students being dependent upon positive sources of school experiences. Numerous studies have cited that social learning models have shown positive correlations between cognitive shaping and skill development in a student's self-image, as well as self-reliance, which is needed to learn and achieve (Flook et al., 2015; Moran, 2013). Therefore, this study implies that when underachieving students experience weak relationships between their self-efficacy sources of mastery, vicarious, verbal persuasion, and physiological experiences, they are inclined to develop negative attitudes toward school climates and towards themselves (Peters, 2013).

As a result, the interpretation of these results corroborates and disputes the suggestion that underachieving students will possibly develop positive views of themselves when supported. At-risk youth who reside in urban communities are at a higher risk for school failure. However, literature has found that support can assist in

successful future outcomes. As previously mentioned by, Rodríguez and Greer (2017), although male participants growing up in an urban environment can encounter academic challenges, research shows that through academic support, hard work, perseverance, self-determination, and peer-support, a person can beat the odds and become successful.

In another study, Braun et al. (2016) found that positive correlations in high GPAs of 25 female and male middle school age students who partook in the Urban Collaborative Accelerated Program where the student's received social promotion of academic support when measuring achievement outcomes. An overview of research by Matheson (2015) found that using an academic intervention model of goals, beliefs, and expectations within the school increased student achievement outcomes and graduation rates. Although this study examined the student's academic self-concept and achievement outcomes, archival data on middle school students found partial correlations between the PABSS program and statically significant changes in GPAs and males perception towards school.

Limitations of the Study

Internal Validity

This section highlights the limitations and essential problems discussed in Chapter 1 and 3 on the usage of archival datasets in my study's methodological approach. A quantitative repeated measure ANOVA measurement included an analysis of archival datasets during the 2017 and 2018 school year. The internal threat inside this statistical measurement as it relates to inferences made from DV self-efficacy and perceptions as measured by the SCS. In acknowledging such internal threats, there is a reasonable

amount of errors that psychological variables hold such as unseen selection biases. These selection biases can filter into discrepancies found in the sample size and deceptions found in self-reports. The Levene's test of homogeneity of variances was responsible for answering some of the research questions that might have had an impact on the results (Creswell, 2009). The main concern was the statistical threats within pair-wise repeater analysis from the SCS. For example, informed consent from the school superintendent to release preexisting datasets prevented the ability to randomly assigned samples or screen for deceptions within the self-reports. However, the nonrandom sampling procedure conducted on archival subsets statistical population measured each of the participants over time (Green & Salkin, 2008). This type of random sampling procedure was done to ensure that the student participants had an equal probability of being chosen and that separate selection was able to stay constant. A pairwise repeater analysis was implemented to minimize discriminatory factorial information so that I could adjust sample repeaters and treat sample selections biases (Haberman & Yao, 2015). For that reason, this awareness can account for the overall findings as well as weaknesses reported on 2017 and 2018 self-efficacy and perceptions.

Another shortcoming in this study was that although, the SCS scale is valid and reliable self-report, I could not measure if the responses were dishonest or honest, seeing that the instrument design measures student's perceptual efficacy towards school climates. I had control over analyzing and comparing the datasets, however, I did not have influence over the collection of data exportation of self-reports or what they revealed. For example, the SCS allowed students to openly interpret questions, thus,

influence how they would respond to the questions. Although, all scores were equally distributed amongst samples measured, I could not ensure that the correct inferences were made about the archival samples. Therefore, if debated, it could be said that probability in this study can hold inherent limitations found when instruments of self-reports measures are secondary samples. Also, taking into account the distribution of the secondary subsets to me was second-handed. Lastly, maintaining confidentiality was a priority in my study so that I could ensure anonymity as it relates to the sensitivity upon archival datasets. In exerting confidentiality, it reduced limitations within self-reports, seeing that this unique attribute offers privacy to students' rights to anonymity by allowing them to freely express themselves based on their experiences, when they responded to questions (Creswell, 2009). Noting that in some cases, researchers use observatory methods where researchers describe their behaviors (Green & Salkin, 2008). Therefore, these are the limitations in this study's results in being an honest and trustworthy representation of the participants.

External Validity

The external limitations of this study regarding the generalizability characteristics arriving from the results. My study included archival datasets arriving from a one Northeastern middle school representing students residing in an urban community in the United States. For example, examinations performed on archival datasets during the 2017 and 2018 school year, represented low-achieving and retained middle school students demographic and background information on age and sex (gender). There were inherent issues of external threats concerning the fact that this study does not reflect all

school-aged students attending public or urban schools in the United States. Although, there was a slight sex/gender difference found $n = 19$ females to $n = 26$ males, the majority of participants were males. The generalized sample size was adequate for this sample which reduces external problems found in larger samples that causing exclusion of samples.

Furthermore, the generalizability of this study finding on $N = 45$ middle school datasets may serve a limitation since 2017-2018 results showed no changes in self-efficacy. Previously, findings on relationship differences in students' perceptions of social learning support found changes in student's responses were either positive or negative in regards to perceptions toward school support (Connolly, 2017). The last limitation of this study was that the general students' level of self-efficacy and perceptions of the school environment was unknown. Consequently, issues concerning the extent of external validity adhere to the consistency that the participants in this study cannot be from an outside setting (Creswell, 2009). Benefits of reducing these types of threats to external validity make mention of the fact that there were no outside environmental changes from extraneous variables to influence the results (Green & Salkin, 2008).

Recommendations for Action

Methodological Guidance

The recommendations of this study may offer insight for expanding into future research based on the groundwork, strengths, and limitations in this area of research. There are two essential recommendations on future methodological limitations found

concerning archival datasets internal validity. This present study's methodological approach was a quantitative measurement using a repeated measure ANOVA approach. Future researchers could expand on this study by using a qualitative methodological approach for students at-risk for adverse outcomes. A qualitative study could offer theoretical insight into positive academic support services when measuring statistical significance since comprehensive studies can explain relationships that exist between archival data-sets retrieved on low-performing middle school students' self-efficacy and achievement outcomes.

The sample selection can affect unseen biases that are likely to hold detrimental factors during the non-random sampling process on archival datasets, resulting in many of the non-statistically significant results. Noting that, secondary sampling does not allow for the researchers to influence the collection of data or control what the data reveals. Thus, there could have been unseen discriminatory factors and biases in how middle students responded to questions on the SCS that could in turn indicate deception. A possible way to maybe reduce discriminatory factors holding deceptions, is to consider redundancy found in repeating the same measure twice on the sample set. However noting, that discriminatory factors holding deceptions, repeater techniques must hold an adjustment to exert prudence, and to be in compliance with legal and ethical boundaries (Haberman & Yao, 2015). Alternatively, to avoid selection biases on archival data sets that are analyzed more than once, future researchers can make use of experimental designs where selection methods randomly assign samples to avoid confounding issues concerning internal validity. Conversely, nonrandom sampling procedures on archival

datasets from the SCS instrument could assist in the avoidance of face value characteristics to reduce secondary analysis where participants inclination to "fake good" in regards to self-efficacy and perceptions toward school climates.

Recommendations for Future Research

Researchers interested in expanding on this study's efforts can address mixed finding in literature illustrated in Chapter 2 and also address the limitations discussed in this present Chapter on external validity. This study has highlighted literature reviews supported by Appelrouth, et al. (2017), on using archival data to examine relationships between self-efficacy and achievement outcomes specifically, found in middle school students. Also, literature reviews supported by Lane et al. (2012) asserted that self-surveys on underachieving students and students who have received grade-level retention, are most likely to show decreased levels of self-efficacy. Therefore, self-surveys from the SCS could provide other evidence on contributing factors that may have nonsignificant results.

Additionally, my results in this study indicated that male students in this study had a significantly higher level of changes in their perceptual attitude towards school than female students. Thus, researchers can expand on this research by researching male students who are not enrolled in a PABSS program to examine for changes or differences amongst relationships over time. Researchers previously noted poor social learning support could lead to poor self-confidence and poor self-worth when a student is academically failing (Lane et al., 2014; Song et al., 2015). Prosocial support and school-based intervention services can influence decisions whether or not to retain or promote a

student. Additional research needs to examine archival records of behavioral consequences to see if a significant relationship exists between time removed from classroom instruction and changes in self-efficacy and perceptual attitudes towards school climates.

The repeated measure ANOVA measurement used to examine relationships in this study may not have had an adequate sample size, therefore, using a larger sample size may yield different results when a researcher investigates relationships that exist amongst these variables. Thus, it is noteworthy to explain that archival datasets from GPA showed significant changes over time. Additional research could also examine the relationship between low-achieving middle school students GPA outcomes and changes in discipline records over time. A substantial amount of research has examined the effect of grade-level retention, and low-achieving students need an opportunity to share their experiences to allow for insight into the potential long-term effects on their future outcomes. Many researchers can encounter barriers in tracking and collecting vulnerable yet sensitive archival records on student records. However, it is important for researchers to be persistent in conducting a similar study to ensure that an understanding of challenges an at-risk low-achieving and retained student can face throughout their educational lifespan.

Implications

Implication for Social Change

Individual impacts. The implication for positive social change is the potential impact scholars might have on the improvements of low-performing and retained middle

school students who attend schools in an urban setting. This study was conducted to provide social awareness to educational professionals. Essentially, the essence of this research was to expand the literature on low-performing and retained students perceptual efficacy by providing scholar-practitioners with insight into educational practices and to revitalize social change in educational practices. The key finding in this study provided awareness into the relationship between self-efficacy and low achievement found in middle school students enrolled in the PABSS program.

As noted in Chapter 4, the noteworthy finding was the significant relationship found in GPAs over time and increases in males' perception towards school climates over time. Findings have shown that responses to self-surveys can vary from either positive or negative when measuring low-performing students' perceptions of school (Connolly, 2017). However, there was no significant relationship found in GPA, attendance, or age on changes in self-efficacy or perceptual attitudes toward school climates.

To further elaborate on this study, increases found in GPAs over time, might be a factor associated to school-based interventions, due to lack of literature on tracking archival data found it low achieving middle school males experiences. Moreover, increases found in males perceptual of school may serve as a contributing factor associated with school support. Literature has suggested that achievement outcomes found in middle school students receiving active social support from teams of academic/behavioral coaches and school liaisons showed a positive increase in their academic self-concept and achievement outcomes (Harn et al., 2015). Researchers are supportive of implementing prosocial support and school-based interventions that reduce

retention rates (Braun et al., 2016; Demanet & Van Houtte, 2013; Edgar-Smith & Palmer, 2015; Orange & Ramalho 2013; Shippen et al., 2012; Song et al., 2015; Wilson, 2014).

Here researchers have duly noted, that school failure is a predictor of lack of academic support during middle school years (Ferrara, 2015; Gewertz, 2012; Lane et al., 2014; Moran, 2013; Song et al., 2015). Proponents for social change notes as a method to achieve a positive social experience for at-risk students, vulnerable population of underachieving students may benefit from receiving positive academic support to increase a students' academic self-concept and perceptual efficacy (Moran, 2013). Consequently, scholar-practitioners that sufficiently identify these educational nuances, not only support improvement to educational practices but is supportive of improving the future outcomes of vulnerable populations of students' who receive grade-level-retention and also benefit from PABSS programs.

A substantial amount of existing research focuses on poor academic self-concept and underachievement found in retained high school student participants. However, this study specifically looked at archival data on low-achieving middle school students, since they tend to be less represented in research (Ferrara, 2015; Gewertz, 2012; Lane et al., 2014; Moran, 2013; Song et al., 2015). Research studies have noted that the effects of grade-level-retention directly associates with the risk of school failure and increased high school dropout rates (Braun et al., 2016).

The problem found in low achievement and grade-level retention in middle school students is that it increases their chances of developing a poor academic self-concept, self-image, self-confidence, and self-worth (Flook et al., 2015; Moran, 2013). Moreover,

this social stigma is reflective of studies tracking students with low-achievement showing negative future outcomes of truancy, school failure, dropouts, and interaction with the juvenile justice system (Connolly, 2017). However, this research hopes to change the discussion on the social stigma of poor outcomes in low-performing students by providing a new discussion on preventative protocols of positive support services used to change the outcomes of low-achieving students.

Methodological, theoretical, and empirical impact. The potential impact for positive social change, at this level, stems from this study's three literature contributions: previous methodological insufficiencies, the theoretical expansion into research, and the empirical findings. First, the research included the elimination of methodological research limitations in prior literature finding that impacted sampling selection biases (Creswell, 2009) and random sampling repeated analysis (Haberman & Yao, 2015).

Secondly, this study also provided support on the impact of positive social change on the perceptions of low-achieving and retained middle school students found to at-risk for experiencing poor achievement outcomes and lower levels of self-efficacy. However, a person could draw such conclusions without the conceptualization of the self-efficacy and social learning theoretical foundations. Bandura's (1997) theoretical framework was beneficial in the subsequent expansion into archival records on low-achieving and retained middle school during the school years of 2017 and 2018 on GPAs, attendance, age, and gender as measured by PS® records and self-efficacy and perceptions toward school climates as measure by the SCS.

Lastly, there was significant evidence to support that genders of males and females can perceive school environments positively or negatively when they have been found to be underachieving (Connolly, 2017). As a result, my knowledge into comparisons primarily focused on archival data obtained from students who receive grade-level- retention or students identified for low achievement outcomes. Indeed, researchers have emphasized that the tracking of archival data. Since it tends to be an area of concern, less represented in research on low-achieving middle school students (Ferrara, 2015; Gewertz, 2012; Lane et al., 2014; Moran, 2013; Song et al., 2015). Although, low self-efficacy and low achievement outcomes is a widely studied phenomenon, preventative protocols of positive support services is a continuous necessity. Therefore, all three components of this research could be the catalyst for social change and expansion of future research.

Practice implication. Several ethical principles in the field of school psychology are upholding human relations, privacy, and confidentiality (American Psychological Association, 2018; National Association of School Psychologists, 2018). The practices of scholar-practitioners fulfillment in training by adhering to a code of conduct where they reduce causing harm to school-age students by keeping all student records private and confidential. Thus, to enhance awareness, scholar-practitioners in the field of school psychology are required to partake in evidence-based educational courses and mental health training that teaches effective approaches designed to help students' succeed emotionally, behaviorally, socially, and academically (National Association of School Psychologists, 2018a). This educational requirement rests upon characteristics seen

between archival records on lower-achieving and retained middle school students' self-efficacy and achievement outcomes.

Secondly, another recommendation is the analysis of the treatment of intervention (PABSS program) and educational policies in place for vulnerable student populations identified for poor self-efficacy and poor achievement outcomes. Scholars determining adequacy for treatment of intervention towards this vulnerable student population adheres to influential guidelines for research on educational and clinical practices (American Psychological Association, 2018). Additionally, scholar-practitioners are also required to examine how clinical educational policies applied to a school-based intervention designed to benefit students at-risk for poor outcomes. Approaches from the RTI models and PBIS have been instrumental in managing academic, socio-emotional and behavioral problems.

By understanding intervention-based services designed for underachieving students at risk for school failure, this can better service low-performing students residing in urban communities. The evaluation of school-based intervention is considered a necessity for practitioners contributing to the welfare of the most cherished students who exhibit emotional, social, behavioral, and academic concerns (National Association of School Psychologists, 2018a). Therefore, this research study suggests that potential recommendations are for educational professionals to expand in the literature by examining preventive models and school-based intervention that are designed to show positive relationships between students' self-efficacy and achievement outcomes.

Conclusion

In this study, there was a sample size of $N = 45$ participants from SY 2017 and SY 2018 archival datasets from underachieving middle school students enrolled in the PABSS program in the northeastern part of the United States. The retained and low-achieving student's assisted in the examinations of relationships between achievement outcomes and self-efficacy along with the theoretical expansion. The purpose of this quantitative study was to examine the relationship between differences found in underachieving middle school students' GPA, attendance, age, and gender as measured by PS® records and to observe for changes in their self-efficacy and perceptions toward school as measured by SCS.

This study hypothesized that a significant relationship between variables on archival datasets from SY 2017 and SY 2018 GPA scores, attendance, and demographics, would demonstrate substantial changes in the students' self-efficacy and perception toward school climates. An extensive amount of literature noted the essential importance, when considering the benefits and impacts on students who encounter grade-level-retention or who are underachieving while in middle school. Thus, literature supportive of at-risk youth development substantiates such backgrounds within research, practice, and most importantly how each factor into school psychologists clinical roles to serve throughout educational institutes as well as in the community.

This research study aimed to provide awareness to educational professionals noting, that intervention-based support services to address underachieving students self-efficacy. However, the lack of significant findings in a study in regards to achievement

outcomes and self-efficacy could still be partly consistent with some of the literature. The consistency in this study based on previous studies that explained the lack of tracking secondary data on the outcomes of underachieving middle school students and their academic self-concept as a need for continuous research to determine or discard a mixture of findings. The significance of preserving awareness upon these factors served within research and practice displays scholar-practitioners commitment to the field of school psychology and underrepresented groups. Moreover, this study allotted for the recognition and identification in which literature reviews might coincide with discussions on the most cherished population of urban middle school students.

This study provided insight on the impact of PBIS support services of academic coaches, behavioral coaches, and school liaisons while tracking secondary data within a specific time frame. Thus noting, the harmful effects that the secondary data might contain in the exportation process of PS® records and students' responses from the SCS. Here, the tracking of archival datasets on PS® records and SCS assisted in expanding of research to offer an understanding on how academically supported students can show changes in achievement outcomes and self-efficacy overtime, but rather, how researchers' and scholar-practitioners comprehend such nuances. Thus, these nuances within 2017 and 2018 GPAs might if overlooked could affect the categorization of the same group of students, since limitations in empirical research available on the tracking of vulnerable populations of underachieving students, has served as an area of interest. In this study the nuances considered significant in the reporting process on archival datasets of self-

efficacy and perceptions when analyzing lower-performing middle school students responses.

Likewise, archival data did not indicate that middle school student enrollment in the PABSS program influenced the relationship between achievement outcomes and changes in self-efficacy. Indeed surprisingly, it is important to mention that there was a significant relationship found in GPA outcomes and changes in males' perceptions of school environments. This study's findings support that further research can expand on the effects of worldviews of school support services given that student outcomes over time may reveal other unique factors given the backgrounds found between achievement and self-efficacy that exist among underachieving middle school students.

Additionally, the results of this study suggested the need for professional research on the vulnerable population of male and female middle school students' perceptual attitudes toward school. The individuals from this group, such as male and female middle school students are less likely to receive school support services, therefore, more likely to hold poor perceptions of school and poor perceptions of their academic self-concept to believe in themselves. This study, also found unexpected findings on males and females middle school students enrolled in the PABSS programs' archival records during 2017 and 2018 noting, increased in changes in GPAs over time.

Furthermore, finding of males and females showing significant differences in their perception of school climates, in regards to increased changes in males perception toward school or decreased changes in females perception of their school over a time frame. The lack of prior research addressed the impact of PBIS for underachieving

middle school students and this study's intent for addressing these gaps by illustrating that the inclusion of school-based support services may be an area explored and embraced in the field of psychological services.

In closing, my hopes and wishes are that these findings assist future researchers exploring school failure prevention plans for students at risk for adverse outcomes. With the rapidly changing culture of educational practices, the needs of all students experiences require diverse approaches that are befitting, yet, within the scope of ethical guidelines and with the discipline of scientific research that could infuse into practice. School psychologist quality of practice depends on the ability to provide educational and clinical support to students populations equally represented, valued, and indicated by research. Thus, this increasing demand is pertinent when implementing school-based services into everyday school and clinical practice to address the need of continuous research on the vulnerable populations of middle school students underachieving or students held back a grade level. Moreover, awareness and insight particularly in developing, implementing, and creating curricula guides that include PBIS to adhere to their academic needs as well as add to future research in this area. Therefore, I hoped that this study's limitation strengths and weaknesses of this type of research could contribute to an avenue of advocacy, scholarly development, and a positive social change as it serves as a stimulant in upcoming research needed to help all students at risk for poor outcomes.

References

American Psychological Association. (2018). Ethical principles of psychologists and code of conduct with 2011 and 2017 amendments. Retrieved from http://www.apa.org/ethics/code/index.aspx

Andrewartha, L., & Harvey, A. (2014). Willing and enabled: The academic outcomes of a tertiary enabling program in regional Australia. *Australian Journal of Adult Learning*, *54*(1), 50-68.

Andrews, C., & Bishop, P. (2012). Middle grades transition programs around the globe. *Middle School Journal*, *44*(1), 8-14.

Appelrouth, J. I., Zabrucky, K. M., & Moore, D. (2017). Preparing students for college admissions tests. *Assessment in Education: Principles, Policy & Practice*, *24*(1), 78-95.

Attwood, G., & Croll, P. (2015). Truancy and well-being among secondary school pupils in England. *Educational Studies*, *41*(1-2), 14-28.

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, *84*(2), 191.

Bandura, A. (1991). Social cognitive theory of moral thought and action. *Handbook of Moral Behavior and Development*, *1*, 45-103.

Bandura, A. (1997). Self-efficacy: Insights. *Harvard Mental Health Letter*. *An International Journal, 13*(9), 4-7.

Bandura, A. (2000). Self-efficacy. In A. E. Kazdin (Ed.), *Encyclopedia of psychology,* (Vol. 7; pp. 212-213). Washington, DC: American Psychological Association. doi:10.1037/10522-094

Bandura, A. (2007). Albert Bandura. In G. Lindzey & W. M. Runyan (Eds.), *A history of psychology in autobiography* (Vol. IX; pp. 43-75). Washington, DC: American Psychological Association. doi:10.1037/11571-002

Bandura, A., & Locke, E. A. (2003). Negative self-efficacy and goal effects. *Journal of Applied Psychology, 88*(1), 87-99.

Bandura, A., & Walters, R. H. (1966). Social learning and personality development. *American Sociological, 31*(1), 128-130.

Banerjee, P. A. (2016). A systematic review of factors linked to poor academic performance of disadvantaged students in science and maths in schools. *Cogent Education*, *3*(1), 1-17

Banks, T., & Obiakor, F. E. (2015) Culturally responsive positive behavior supports: Considerations for practice. *Journal of Education and Training Studies 3*(2), 83-90.

Bird, K. (2006). Student information systems: How do you spell parental involvement? Student information systems. *Technological Horizons in Education. Journal*, *33*(7), 38-42.

Birioukov, A. (2016). Beyond the excused/unexcused absence binary: Classifying absenteeism through a voluntary/involuntary absence framework. *Educational Review*, *68*(3), 340-357.

Booth, M. Z., & Gerard, J. M. (2014). Adolescents' stage-environment fit in middle and high school: The relationship between students' perceptions of their schools and themselves. *Youth & Society*, *46*(6), 735-755.

Bornsheuer J. N., Polonyi M. A., Andrews M., Fore B., & Onwuegbuzie A. J. (2011). The relationship between ninth-grade retention and on-time graduation in a Southeast Texas high school. *The Journal of At-Risk Issues, 16,* 9–16.

Braun, D. L., Gable, R. K., Billups, F. D., Vieira, M., & Blasczak, D. (2016). Evolving an accelerated school model through student perceptions and student outcome data. *Journal of Educational Issues*, *2*(2), 385-406.

Cohen, J. (2016). A power primer. In A. E. Kazdin (Ed.), *Methodological issues and strategies in clinical research* (pp. 279-284). Washington, DC: American Psychological Association. doi:10.1037/14805-018

Connolly, G. J. (2017). Applying social cognitive theory in coaching athletes: The power of positive role models. *Strategies: A Journal for Physical and Sport Educators*, *30*(3), 23-29.

Creswell, J. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches* (3rd ed.). Thousand Oaks, CA: Sage.

Cuenca-Carlino, Y., Freeman-Green, S., Stephenson, G. W., & Hauth, C. (2016). Self-regulated strategy development instruction for teaching multi-step equations to middle school students struggling in math. *Journal of Special Education*, *50*(2), 75-85.

Daly, A. J., Moolenaar, N. M., Liou, Y., Tuytens, M., & Del Fresno, M. (2015). Why so difficult? Exploring negative relationships between educational leaders: The role of trust, climate, and efficacy. *American Journal of Education*, *122*(1), 1-38.

Demanet, J., & Van Houtte, M. (2013). Grade retention and its association with school misconduct in adolescence: A multilevel approach. *School Effectiveness and School Improvement*, *24*(4), 417-434.

Diedenhofen, B., & Musch, J. (2016). Cocron: A web interface and r package for the statistical comparison of Cronbach's alpha coefficients. *International Journal of Internet Science, 11*(1), 51.

Dupont, S., Galand, B., & Nils, F. (2015). The impact of different sources of social support on academic performance: Intervening factors and mediated pathways in the case of master's thesis. *European Review of Applied Psychology / RevueEuropéenne DePsychologie Appliquée*, *65*(5), 227-237. doi:10.1016/j.erap.2015.08.003

Edgar-Smith, S., & Palmer, R. B. (2015). Building supportive school environments for alternative education youth. *Preventing School Failure*, *59*(3), 134-141.

Ehrenreich, H., Reeves, P. M., Corley, S., & Orpinas, P. (2012). With graduation in sight: Perceptions of high- and low-aggression students of the journey to high school completion. *School Psychology Quarterly*, *27*(4), 198-209.

Eichler, H. G., Pétavy, F., Pignatti, F., & Rasi, G. (2013). Access to patient-level trial data—A boon to drug developers. *New England Journal of Medicine*, *369*(17), 1577-1579.

Fall, A., & Roberts, G. (2012). High school dropouts: Interactions between social context, self-perceptions, school engagement, and student dropout. *Journal of Adolescence*, *35*(4), 787-798.

Fallon, M. A., Zhang, J., & Kim, E. (2011). Using course assessments to train teachers in functional behavior assessment and behavioral intervention plan techniques. *Journal of the International Association of Special Education*, *12*(1), 50-58.

Faria, A., Sorensen, N., Heppen, J., Bowdon, J., Taylor, S., Eisner, R.,... American Institutes for Research. (2017). Getting students on track for graduation: Impacts of the early warning intervention and monitoring system after one year. Retrieved from http://ies.ed.gov/ncee/edlabs/

Faul, F., Erdfelder, E., Lang, A.-G. & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods, 39*(2), 175-191.

Ferrara, M. M. (2015). Parent involvement facilitators: Unlocking social capital wealth. *School Community Journal, 25*(1), 29-51.

Feuerborn, L., & Chinn, D. (2012). Teacher perceptions of student needs and implications for positive behavior supports. *Behavioral Disorders*, *37*(4), 219-231.

Flook, L., Goldberg, S. B., Pinger, L., & Davidson, R. J. (2015). Promoting prosocial behavior and self-regulatory skills in preschool children through a mindfulness-based kindness curriculum. *Developmental Psychology*, *51*(1), 44-51.

Garcia, S. G., Jones, D., Holland, G., & Mundy, M. (2013). Instructional coaching at selected middle schools in south Texas and effects on student achievement. *Journal of Instructional Pedagogies*, *11*.

Gewertz, C. (2012). Common standards drive new reading approaches. *Education Week*, *32*(12), 2-4.

Gottfried, M. A. (2012). Reframing retention: New evidence from within the elementary school classroom on post-retention performance. *Elementary School Journal*, *113*(2), 192-214.

Gravetter, F. J., & Wallnau, L. B. (2016). *Statistics for the Behavioral Sciences* (10th ed.). Belmont CA: Wadsworth Cengage Learning.

Green, S. B., & Salkin, N. J. (2008*). Using SPSS for Windows and Macintosh: Analyzing and understanding data* (5th ed.). Upper Saddle River, NJ: Pearson Prentice Hall.

Greene, R. W. (2014). *Lost at school: Why our kids with behavioral challenges are falling through the cracks and how we can help them*. New York, NY: Scribners.

Grigg, J. (2012). School enrollment changes and student achievement growth: A case study in educational disruption and continuity. *Sociology of Education*, *85*(4), 388-404.

Griggs, M. S., Rimm-Kaufman, S. E., & Merritt, E. G. (2013). The "responsive classroom" approach and fifth-grade students' math and science anxiety and self-efficacy. *School Psychology Quarterly, 28*(4), 360-373.

Haberman, S., & Yao, l. (2015). Repeater analysis for combining information from different assessments. *Journal of Educational Measurements*, *52*(2), 223-251.

Hanson, T., Dietsch, B., & Zheng, H. (2012). *Lessons in character impact evaluation: Final report.* Washington, DC: National Center for Educational Evaluation.

Harklau, L. (2013). Why Izzie didn't go to college: Choosing work over college as Latina feminism. *Teachers College Record*, *115*(1), 1.

Harn, B., Basaraba, D., Chard, D., & Fritz, R. (2015). The impact of schoolwide prevention efforts: Lessons learned from implementing independent academic and behavior support systems. *Learning Disabilities: A Contemporary Journal*, *13*(1), 3-20.

Haselden, P., Sanders, M., & Sturkie, L. (2012). Action research: Effects of self-efficacy training on low-achieving freshmen. *Canadian Journal of Action Research, 13*(1), 13-35.

Heilbrun, A., Cornell, D., & Lovegrove, P. (2015). Principal attitudes regarding zero tolerance and racial disparities in school suspensions. *Psychology in the Schools*, *52*(5), 489-499.

Hoigaard, R., Kovac, V. B., Overby, N. C., & Haugen, T. (2015). Academic self-efficacy mediates the effects of school psychological climate on academic achievement. *School Psychology Quarterly*, *30*(1), 64-74.

Howardson, G. N., & Behrend, T. S. (2015). The relative importance of specific self-efficacy sources in pretraining self-efficacy beliefs. *International Journal of Training and Development*, *19*(4), 233-252.

Isaacson, A. (2016). Resolving a teacher-student conflict: An intrinsic case study. *Journal of Education and Learning*, *5*(1), 68-77.

Kelm, J. L., & McIntosh, K. (2012). Effects of school-wide positive behavior support on teacher self-efficacy. *Psychology in the Schools*, *49*(2), 137-147.

Kirk, C. M., Lewis, R. K., Brown, K., Karibo, B., & Park, E. (2016). The power of student empowerment: Measuring classroom predictors and individual indicators. *Journal of Educational Research*, *109*(6), 589-595.

Konold, T., Cornell, D., Huang, F., Meyer, P., Lacey, A., Nekvasil, E., & Shukla, K. (2014). Multilevel multi-informant structure of the authoritative school climate survey. *School Psychology Quarterly*, *29*(3), 238-255.

Lai, S., Stevens, C., Martinez, J., & Ye, R. (2015). A cross-national study of students' attitudes toward school. *Pastoral Care in Education*, *33*(1), 33-46.

Lane, K. L., Oakes, W. P., Ennis, R. P., & Hirsch, S. E. (2014). Identifying students for secondary and tertiary prevention efforts: How do we determine which students have Tier 2 and Tier 3 needs? *Preventing School Failure*, *58*(3), 171-182.

Lamote, C., Pinxten, M., Van Den Noortgate, W., & Van Damme, J. (2014). Is the cure worse than the disease? A longitudinal study on the effect of grade retention in secondary education on achievement and academic self-concept. *Educational Studies*, *40*(5), 496-514.

Leland, M. (2015). Mindfulness and student success. *Journal of Adult Education*, *44*(1), 19- 24.

Levine, M., & Levine, A. (2012). 'Left back' and the age–grade system: Problem creation through problem solution. *American Journal of Orthopsychiatry*, *82*(4), 455-462.

Litalien, D., Morin, A. S., & McInerney, D. M. (2017). Achievement goal profiles among adolescent males and females. *Developmental Psychology*, *53*(4), 731-751.

Lower, A., Young, K. R., Christensen, L., Caldarella, P., Williams, L., & Wills, H. (2016). Effects of a Tier 3 self-management intervention implemented with and without treatment integrity. *Education and Treatment of Children*, *39*(4), 493-520.

Lynch, M. (2013). Alternatives to social promotion and retention. *Interchange: A Quarterly Review of Education*, *44*(3-4), 291-309.

Lynch, M. (2014). The true costs of social promotion and retention. *International Journal of Progressive Education*, *10*(3), 6-17.

Mallett, C. A. (2014). The "learning disabilities to juvenile detention" pipeline: A case study. *Children & Schools, 36*(3), 147-154.

Mann, M. J., Smith, M. L., & Kristjansson, A. L. (2015). Improving academic self-efficacy, school connectedness, and identity in struggling middle school girls: A preliminary study of the "REAL girls" program. *Health Education & Behavior*, *42*(1), 117-126.

Marsh, H. W. (2016). Cross-cultural generalizability of year in school effects: Negative effects of acceleration and positive effects of retention on academic self-concept. *Journal of Educational Psychology*, *108*(2), 256-273.

Matheson, I. A. (2015). Self-regulatory efficacy and mindset of at-risk students: An exploratory study. *Exceptionality Education International*, *25*(1), 67-90.

Mathur, S. M., & Nelson, C. M. (2013). PBIS as prevention for high-risk youth in restrictive settings: Where do we go from here? *Education and Treatment of Children*, *36*(3), 175-181.

McDaniel, S. C., Flower, A., & Cheney, D. (2011). Put me in, coach! A powerful and efficient Tier 2 behavioral intervention for alternative settings. *Beyond Behavior*, *20*(1), 18-24.

McNeal, R. J. (2014). Parent involvement, academic achievement and the role of student attitudes and behaviors as mediators. *Universal Journal of Educational Research*, *2*(8), 564-576.

Meadan, H., Ayvazo, S., & Ostrosky, M. M. (2016). The ABCs of challenging behavior: Understanding basic concepts. *Young Exceptional Children*, *19*(1), 3-15.

Mellard, D. F., Frey, B. B., & Woods, K. L. (2012). School-wide student outcomes of response to intervention frameworks. *Learning Disabilities: A Contemporary Journal*, *10*(2), 17-32.

Montague, M., Enders, C., Cavendish, W., & Castro, M. (2011). Academic and behavioral trajectories for at-risk adolescents in urban schools. *Behavioral Disorders*, *36*(2), 141-156.

Moran, K. A. (2013). Verbal word choice of effective reading teachers. *Academic Leadership Journal in Student Research*, *1*.

National Association of School Psychologists. (2018). Principles for professional ethics of school psychologists and code of conduct with 2010 and 2017 amendments. Retrieved from https://www.nasponline.org/standards-and-certification/professional-ethics

New Jersey Department of Education. (2012a). New Jersey school climate survey. Current population survey (CPS). Retrieved from https://www.state.nj.us/education/students/safety/behavior/njscs/NJSCS_MSHS_Student_Q.pdf

New Jersey Department of Education. (2012b). New Jersey school climate survey. Current population survey (CPS). Retrieved from https://www.state.nj.us/education/students/safety/behavior/njscs/12/NJSCS_Guide.pdf

Niehaus, K., Rudasill, K. M., & Rakes, C. R. (2012). A longitudinal study of school connectedness and academic outcomes across sixth grade. *Journal of School Psychology*, *50*(4), 443-460.

Nocera, E. J., Whitbread, K. M., & Nocera, G. P. (2014). Impact of school-wide positive behavior supports on student behavior in the middle grades. *RMLE Online: Research in Middle-Level Education, 37*(8), 4-49.

Orange, C., & Ramalho, E. M. (2013). Reducing the need for postsecondary remediation using self-efficacy to identify underprepared African-American and Hispanic adolescents. *Electronic Journal of Research in Educational Psychology*, *11*(1), 51-74.

Parr, A. K., & Bonitz, V. S. (2015). Role of family background, student behaviors, and school-related beliefs in predicting high school dropout. *Journal of Educational Research*, *108*(6), 504-514.

Pattison, E. M. (2014). "It's important to put yourself in any lesson that you teach": Self-efficacy in action in the primary modern foreign languages classroom. *Language Learning Journal*, *42*(3), 334-345.

Peters, M. L. (2013). Examining the relationships among classroom climate, self-efficacy, and achievement in undergraduate mathematics: A multi-level analysis. *International Journal of Science and Mathematics Education, 11*(2), 459-480.

Peterson, L., & Hughes, J. (2011). The differences between retained and promoted children in educational services. *Psychology in Schools, 48*(2), 156-165.

Phan, H. P., & Ngu, B. H. (2016). Sources of self-efficacy in academic contexts: A longitudinal perspective. *School Psychology Quarterly*, *31*(4), 548-564. doi:10.1037/spq0000151

Porter, G. (2000). Anyone, anytime, anywhere learning. *Leadership*, *30*(1), 32-33.

Range, B. G., Pijanowski, J., Holt, C. R., & Young, S. (2012). The perceptions of primary grade teachers and elementary principals about the effectiveness of grade-level retention. *Professional Educator*, *36*(1),

Rice, L., Barth, J. M., Guadagno, R. E., Smith, G. A., & McCallum, D. M. (2013). The role of social support in students' perceived abilities and attitudes toward math and science. *Journal of Youth and Adolescence*, *42*(7), 1028-1040.

Reid, K. (2012). The strategic management of truancy and school absenteeism: Finding solutions from a national perspective. *Educational Review*, *64*(2), 211-222.

Reschly, A. L., & Christenson, S. L. (2012). Moving from "context matters" to engaged partnerships with families. *Journal of Educational & Psychological Consultation*, *22*(1-2), 62-78.

Rodríguez, L. F., & Greer, W. (2017). (Un)expected scholars: Counter-narratives from two (boys) men of color across the educational pipeline. *Equity & Excellence in Education*, *50*(1), 108-120.

Rosário, P., Núñez, J. C., Valle, A., González-Pienda, J., & Lourenço, A. (2013). Grade level, study time, and grade retention and their effects on motivation, self-regulated learning strategies, and mathematics achievement: A structural equation model. *European Journal of Psychology of Education*, *28*(4), 1311-1331.

Saeki, E. J., Jimerson, S. R., Earhart, J., Hart, S. R., Renshaw, T., Singh, R. D., & Stewart, K. (2011). Response to intervention (RtI) in the social, emotional, and behavioral domains: Current challenges and emerging possibilities. *Contemporary School Psychology, 15*(1), 43-52.

Schwinger, M., Wirthwein, L., Lemmer, G., & Steinmayr, R. (2014). Academic self-handicapping and achievement: A meta-analysis. *Journal of Educational Psychology*, *106*(3), 744-761.

Scott, T. M., & Cooper, J. (2013). Tertiary-tier PBIS in the alternative, residential and correctional school settings: Considering intensity in the delivery of evidence-based practice. *Education and Treatment of Children*, *36*(3), 101-119.

Semke, C. A., & Sheridan, S. M. (2012). Family-school connections in rural educational settings: A systematic review of the empirical literature. *School Community Journal*, *22*(1), 21-47.

Shippen, M. E., Patterson, D., Green, K. L., & Smitherman, T. (2012). Community and school practices to reduce delinquent behavior: Intervening on the school-to-prison pipeline. *Teacher Education & Special Education*, *35*(4), 296-308.

Siegle, D., McCoach, D. B., & Roberts, A. (2017). Why I believe I achieve determines whether I achieve. *High Ability Studies*, *28*(1), 59-72.

Skiba, R. J., Arredondo, M. I., & Williams, N. T. (2014). More than a metaphor: The contribution of exclusionary discipline to a school-to-prison pipeline. *Equity & Excellence in Education*, *47*(4), 546-564.

Skinner, E., Pitzer, J., & Steele, J. (2013). Coping as part of motivational resilience in school: A multidimensional measure of families, allocations, and profiles of academic coping. *Educational and Psychological Measurement*, *73*(5), 803-835.

Song, J., Bong, M., Lee, K., & Kim, S. (2015). Longitudinal investigation into the role of perceived social support in adolescents' academic motivation and achievement. *Journal of Educational Psychology*, *107*(3), 821-841.

Sosa, L. V., & McGrath, B. (2013). Collaboration from the ground up: Creating effective teams. *School Social Work Journal, 38*(1), 34-48.

Strong, R., & Harder, A. (2011). Influence of selected personal characteristics on Florida master gardener's instructional efficacy. *Journal of Agricultural Education*, *52*(3), 27-35.

Temel, G. O., Erdogan, S., Selvi, H., & Kaya, I. E. (2016). Investigation of the coefficient of individual agreement regarding sample size, random and monotone missing ratio, and a number of repeated measures. *Educational Sciences: Theory and Practice*, *16*(4), 1381-1395.

Tracey, T. J. (2016). A note on socially desirable responding. *Journal of Counseling Psychology, 63*(2), 224-232.

U.S. Department of Commerce. (2012a). High school dropout rate among people ages 16 through 24 from years 1960 through 2015. Current population survey (CPS). Retrieved from http://nces.ed.gov/pro grams/digest/d12/tables/dt12_116.asp

U.S. Department of Commerce. (2012b). Low-income students, students of color, and students with disabilities have the highest chronic absence rates. Retrieved from https://nces.ed.gov/programs/digest/d16/tables/dt16_219.70.asp?current=yes https://nces.ed.gov/forum/pdf/S2016_Chronic_Absenteeism.pdf

Utley, C. A., & Obiakor, F. E. (2015). Special issue: Research perspectives on a multi-tiered system of support. *Learning Disabilities: A Contemporary Journal*,*13*(1), 1-2.

Vandecandelaere, M., Schmitt, E., Vanlaar, G., De Fraine, B., & Van Damme, J. (2016). Effects of kindergarten retention for at-risk children's psychosocial development. *Educational Psychology*, *36*(8), 1354-1389.

VanderPlaat, M. (2016). Activating the sociological imagination to explore the boundaries of resilience research and practice. *School Psychology International*, *37*(2), 189-203.

Van Dinther, M., Dochy, F., Segers, M., & Braeken, J. (2014). Student perceptions of assessment and student self-efficacy in competence-based education. *Educational Studies, 40*(3), 330-351.

Walden University. (2009). *2009-2010 Walden University student handbook*. Retrieved from http://handbookurl.waldenu.edu

Warne, R. T., Nagaishi, C., Slade, M. K., Hermesmeye, P., & Peck, E. K. (2014). Comparing weighted and unweighted grade point averages in predicting college success of diverse and low-income college students. *NASSP Bulletin, 98*(4), 261-279.

Wilson, H. (2014). Turning off the school-to-prison pipeline. *Reclaiming Children and Youth*, *23*(1), 49-53.

Wright, S. L., Jenkins-Guarnieri, M. A. & Murdock, J. L. (2013). Career development among first-year college students: College self-efficacy, student persistence, and academic success. *Journal of Career Development, 40*(4), 292-310.

Zimmerman, B. J. (1995). Self-efficacy and educational development. In A. Bandura (Ed.), *Self-efficacy in changing societies* (pp. 202-231). Cambridge, England: Cambridge University Press.