

DIFFERENCES IN ACHIEVEMENT, ATTENDANCE, AND DISCIPLINE IN THREE
TYPES OF MISSOURI NINTH-GRADE TRANSITION PROGRAMS

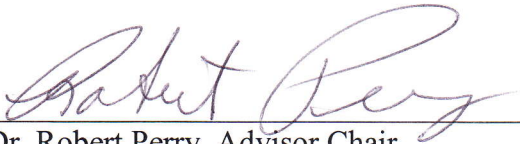
ANTHONY J. LOURENCO

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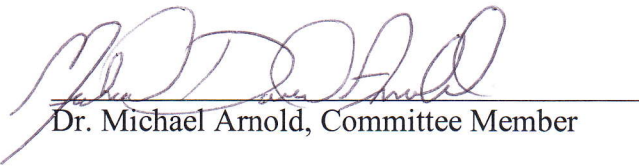
The undersigned, approved by the Department Chair of Graduate Studies in Education, have examined a dissertation entitled:

Differences in Achievement, Attendance, and Discipline in Three Types of Missouri
Ninth-Grade Transition Programs

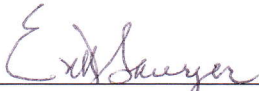
Presented by Anthony J. Lourenco, a candidate for the degree of Doctor of Education, and hereby certify that in their opinion it is worthy of acceptance.



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Differences in Achievement, Attendance, and Discipline in Three
Types of Missouri Ninth-Grade Transition Programs

A Dissertation
Presented to
The Faculty of the Graduate Education Department
Southwest Baptist University

In Partial Fulfillment
Of the Requirements for the Degree
Doctor of Education

By

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ABSTRACT

The ninth grade year is a pivotal year for any student transitioning from the middle school to high school. The ninth grade year can determine if a student will graduate from high school. Any time a student makes a transition in school it can be detrimental to the student psychologically, socially and academically. The ninth grade transition is an important transition in the education process for a freshman student. Ninth grade students are considered to be at risk students. Schools across the country are implementing freshman transition programs to help freshman students to better adjust to the high school environment.

The purpose of this quantitative research study was to test if three different freshman transition programs, freshman academies, mentorship models and summer bridge models had any effect on Algebra I, English II, attendance, and discipline events. Results from individual one-way ANOVA's indicated freshman transition programs had an effect on increasing attendance and decreasing discipline events. The goal of this study was to help administrators make an informed decision of implanting a freshman transition program into their school. The other was to give the administrators options as to the freshman transition program they may decide to adopt.

CHAPTER ONE

INTRODUCTION

High schools across the country are evolving to provide ninth-grade students a seamless transition from middle school to high school (Roybal, Thornton, & Usinger, 2014; Saechao, 2014). This evolution is evident in the methods used to induct ninth graders as they enter high school (Roybal, Thornton, & Usinger, 2014; Saechao, 2014). The ultimate measure of success for ninth graders is to graduate with their cohort class within a four-year time span. For various students this is a difficult process, and the complications can be traced to the transition from eighth grade to ninth grade (Andrew & Flashman, 2017; Saechao, 2014). The problem is not confined to one location, but is found in schools across the nation (Andrew & Flashman, 2017; Saechao, 2014).

Students experience a multitude of changes physically, socially, and academically when they begin the transition from eighth grade to ninth grade. Physically, students encounter a change in environment that may include new buildings, administrators, and teachers. Students transitioning from middle school to high school experience more rigorous academic standards and systems of discipline, and ninth graders must learn to maintain family connections with less direct input from parents (Kretsch, Mendle, Cance, & Harden, 2016). Freshmen experience hormonal changes that can greatly affect their lives. There is an expectation that students transitioning into high school will establish new social connections, learn to balance their personal lives with school, manage schoolwork, and possibly work a part-time job. Students are expected to learn new organizational skills, study habits, and personal responsibility for their future academic growth. Some students who transition to high school struggle with these expectations and

experiences (Kretsch, Mendle, Cance, & Harden, 2016). The path to students dropping out of school can be traced to the ninth-grade year, and this correlation has been established for over 20 years (Alspaugh & Harting, 1995; Healy, 2014).

Royabal et al. (2014) says many schools include ninth-grade transition programs designed to provide positive supports when students transition into high school. Students are provided tools and supports in these programs to address environmental, emotional, sociological, physiological, and psychological needs. Royabal et al. (2014) goes on to say ninth-grade transition programs have become important not only locally but also at the national level. Several schools are experimenting with different transition programs to determine their effectiveness. Ninth-grade transition programs provide positive supports for students who enter high school; when effectively implemented, these transition programs increase the number of successful students and create better-prepared graduates (Roybal et al., 2014).

Ninth-grade transition programs can be separated into three categories: Freshman Academies, Mentorship programs, and Summer Bridge models (DeLamar & Brown, 2016; Roybal et al., 2014; Vera et al., 2016). This study was designed to determine if one ninth-grade transition program is more effective in helping students transition from eighth grade to ninth grade. The researcher will examine end-of-course test scores in Algebra I and English II, student attendance, and major discipline events to determine if there is a difference among the programs investigated. Current literature does not include a study focused on schools in Missouri and designed to compare different transition programs and their effectiveness on Algebra I and English II test scores, attendance, and major discipline events. The researcher will investigate Missouri high schools that utilize

one of the three ninth-grade transition programs to determine which, if any, ninth-grade transition program is most effective at helping students transition from eighth grade to ninth grade by comparing the impact of the ninth-grade transition program on student achievement, attendance, and discipline.

Problem Statement

To better institute successful ninth-grade transition programs, researchers should understand what transition programs work in other districts. Students who transition from middle school to high school experience a multitude of problems that can cause stress as the students adjusting to their new environment (DeLamar & Brown, 2016; Loke & Lowe, 2014). This adjustment often negatively affects attendance, academic achievement, and behavior. Somers and Garcia (2016) stated to lessen these effects, educators have developed programs to assist students with the transition; however, not all transition programs are effective at keeping attendance rates and academic achievement high while decreasing undesirable behavior.

Multiple researchers (Ellerbrock, Denmon, Owens, & Lindstrom, 2015; Healy, 2014; Kieffer, Marinell, & Neugebauer, 2014; Suldo & Shaunessy-Dedrick, 2013) have indicated any time a student makes a transition, there is a higher probability for negative effects. In particular, ninth graders are classified as one of the higher at-risk populations of students (Healy, 2014). Researchers have identified problems such as high anxiety, depression, stress from new groupings, and decreased academic achievement and attendance (Goodwin, Mrug, Borch, & Cillessen, 2012; Laursen & Hartl, 2013; London & Ingram, 2018; Rubin, 2013).

Ninth-grade transition programs may offer incoming ninth graders the opportunity to better understand the role and expectations of a high school student while providing them with skills, social supports from peers and teachers, and structure to acclimate successfully to a new academic setting (Allen, 2011; Benner, Boyle, & Bakhtiari, 2017). The transition from the middle grades to high school can have a negative overall effect on students; consequently, school districts across the United States have developed different models of transition programs designed to support students making the transition into ninth grade (Roybal et al., 2014).

Ninth-grade transition programs fall into three categories: Freshman Academies, Mentorship programs, and Summer Bridge models (DeLamar & Brown, 2016; Roybal et al., 2014; Vera et al., 2016). The researcher intends to determine if a particular type of freshman transition program model is more effective than the others at decreasing the negative effects of a ninth-grade transition in the areas of academic achievement, attendance, and behavior.

Theoretical Framework

The theoretical framework of this study is based on the research of Albert Bandura (1986) and his Social Cognitive Theory. Bandura's (1986) observational learning models, outcome expectations, perceived self-efficacy, goal setting, and self-regulation can be applied to the development of ninth-grade transition programs. The anticipated results of ninth-grade transition programs are for students to model good behavior, explain the outcomes of their decisions, develop positive self-efficacy, and set goals (Vera et al., 2016). The purpose of ninth-grade transition programs is for students to have an easier time transitioning into high school.

Bandura (1986) indicated students transitioning from one environment to another, such as from middle school to high school, experience a change in their self-efficacy, or confidence. Bandura (1986) explained students experience a reevaluation of their competencies when faced with tasks involving a high level of uncertainty, such as the transition to an entirely new school. Bouffard, Boileau, and Vezeay (2001) expanded on this theory by stating students who excel in academics and socialize with high-achieving groups have higher self-efficacy before and after their transition from middle school to high school. Based on Bandura's (1986) theory, students in a ninth-grade transition program learn better when they are in a social context involving reciprocal interaction. Bandura (1986) specified students who encounter others who have had similar experiences, such as upperclassmen or adults, transition more easily into high school based on the information and assistance of the experienced persons. Transition programs support a seamless shift from middle school to high school so students can perform better academically and mentally (Corsello, Sharma, & Jerabek, 2015).

Purpose for the Study

Ninth grade is pivotal year for students; Roybal et al. (2014) reported the ninth-grade year can determine if a student will graduate high school. School districts across the country have implemented programs that make transitioning from middle school to high school more seamless (Saechao, 2014). The purpose of this causal-comparative study is to test Bandura's Social Cognitive Theory and Self-Efficacy as it applies to different models of freshman transition programs, as self-efficacy and socialization are important components of these programs. A comparison of academic achievement, discipline referrals, and attendance rates among ninth graders entering high school and

enrolled in Freshman Academies, Mentorship programs, or Summer Bridge transition programs is a test of the success of the application of Bandura's Social Cognitive Theory and Self Efficacy. Bandura (2001) revealed a link between social activities of students in school and their attendance, discipline, self-efficacy/self-confidence, and academic success. Bandura (2001) stated a student's confidence in his or her own ability is directly related to the ability to be successful both socially and academically. This study is the first in Missouri to compare the success of Freshman Academies, Mentorship programs, and Summer Bridge models.

Research Question

The following research question was developed to guide this study:

1. What are the differences in attendance, discipline referrals, and English II and Algebra I end-of-course test scores among the three ninth-grade transition models identified?

Null Hypotheses

H₀₁: There are no statistically significant differences in Algebra I end-of-course test scores among the three ninth-grade transition models identified in this study.

H₀₂: There are no statistically significant differences in English II end-of-course test scores among the three ninth-grade transition models identified in this study.

H₀₃: There are no statistically significant differences in attendance percentages among the three ninth-grade transition models identified in this study.

H₀₄: There are no statistically significant differences in the number of discipline referrals among the three ninth-grade transition models identified in this study.

Limitations/Delimitations

The limitations of this study were relative to designs utilized by the researcher as follows:

1. The return rate for the survey.
2. Assumptions of honesty from principals who returned surveys.
3. Motivations of students to perform on the end-of-course (EOC) exams.
4. Differences in student abilities to perform on the EOC exams.
5. The EOC exams were already administered prior to the study.
6. Districts individually control the administration of the EOC exams.
7. Only high schools with freshman transition programs were included in the study.
8. Only three well-established freshman transition programs were included in the study.

The delimitations that may exist in this research are as follows:

1. The data will be collected from the first year the transition program was initiated or the first year the needed data are available. The data will include attendance, academic achievement, and major discipline referrals.
2. Only public school districts in Missouri who have implemented ninth-grade transition programs may be participants.
3. The following three models of freshman transition programs will be studied: Freshman Academies, Mentorship programs, and the Summer Bridge model.

Design Control

The researcher utilized a retrospective design for the quantitative study using a researcher-developed survey to elicit information from secondary school principals in Missouri to determine if one of the following freshman transition models were used in their school districts: Freshman Academies, Mentorship programs, and Summer Bridge models. The survey responses were collected by the researcher using QuestionPro software. QuestionPro has built-in safeguards to ensure confidentiality. The researcher will also ensure individual confidentiality by using group scores, not individual student scores, and no district will be identified individually in the study. The quantitative methods used in the study were developed to serve as the design control for potential research bias.

Assumptions

The following assumptions were made for this study:

1. Assumption of honesty of participants.
2. Assumption the Missouri Department of Elementary and Secondary Education (MODESE) database is up-to-date and accurate.
3. Superintendent information from the MODESE was current.
4. Students in the ninth-grade classes studied are similar based on the following characteristics: EOC exam scores, socioeconomic status, mobility, and exceptionality.
5. All students will be included in this study if they are enrolled in ninth grade during the years of the study.

Definition of Terms

The following terms were defined for this study:

Academic achievement. Academic achievement includes performance outcomes that indicate the extent to which a person has accomplished specific goals that were the focus of activities in instructional environments (Steinmayr, Meiner, Weidinger, & Wirthwein, 2014). For the purpose of this study, academic achievement is measured through EOC exam scores in Algebra I and English II.

Attendance. Attendance is defined as presence at any regular accredited educational institution or program, public or private, for organized learning at any level of education at the time of the census, or if the census is taken during the vacation period at the end of the school year, during the last school year.

Major discipline referrals. Major discipline referrals include those that result in suspension for 10 or more consecutive days (MODESE, 2018). Examples of violations include fighting, drugs, and assaults (MODESE, 2018).

Ninth-grade transition programs. Ninth-grade transition programs are defined for the purpose of this study as programs that ease the transition from middle school to high school. Effects of ninth-grade transition programs may include increased academic achievement and emotional support (Thornsberry, 2010).

Student behavior. For the purpose of this study, student behavior is defined as a behavior not in compliance with stated categories of behavior as defined by the student handbook and school district policy. These behaviors result in a referral to the principal's office for adjudication (Pas, Bradshaw, & Mitchell, 2011). For the purpose of this study, only major discipline referrals will be included, such as drug offenses and assaults.

Transition. According to Anafara and Schmid (2007), transition is “a process during which institutional and social factors influence which students’ educational careers are positively or negatively affected by movement between organizations” (p. 60).

Summary

Chapter One included information concerning student transition from middle school to high school and difficulties students can encounter during this transition. Students transitioning from middle-level grades to the high school setting are considered a high-risk category in terms of academic failure, dropout, disciplinary effects, low attendance rates, and psychological breakdowns (Cushman, 2006; Goodwin et al., 2012; Hickman et al., 2017; Suldo & Shaunessy-Dedrick, 2013).

The researcher is conducting this study to determine the differences freshman transition programs make in relation to the transition from eighth to ninth grade in districts across Missouri. A wealth of research provides information on freshman transition programs and how they affect students, but there is limited information on how freshman transition programs affect academic achievement, attendance rates, and discipline. The intent of the researcher in conducting the study is to provide research to determine the success of various freshman transition programs currently utilized in Missouri high schools. Success will be measured through analysis of EOC test scores, attendance rates, and disciplinary actions based on comparison of current data to data collected from years prior to implementing ninth-grade transition programs. In this quantitative study, surveys will be distributed to all public school districts in Missouri with high schools including grades nine through 12.

Bandura's (1986) Social Cognitive Theory and Self-Efficacy is the basis for the study of different models of freshman transition programs, as self-efficacy and socialization are important components of these programs. In Chapter Two, the literature review includes factors affecting social-emotional well-being and self-efficacy. Factors reviewed include characteristics of an adolescent child, peer selection, transitioning from middle school to high school, and freshman transition programs.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

Introduction

The transition from middle school to high school can be one of the most pivotal changes in an adolescent's life (Allen, 2011). The transition can mark the success or failure of the student in high school (Allen, 2011). Kingery and Erdley (2007) explained adolescent students are compounded by different life events that can make changing from middle school to high school difficult. Healy (2014) found understanding these life events can be helpful in developing programs to make transitioning from middle school to high school easier. Healy (2014) went on to say that schools across the nation are beginning to implement programs to assist middle school students with the transition to high school. Each of these programs contains characteristics that make freshman transition programs work for their perspective school districts. The program models the researcher is comparing in this study are reviewed in the review of relevant literature. Each of the models has some characteristics in common, and each program may be adjusted based on the needs of the individual school district.

Chapter Two begins with a review of literature related to the unique characteristics of the middle school student, specifically physical, emotional, and social issues that could make a transition into high school challenging. Also reviewed is literature about the transition from middle school to high school and the impact on students. In the introduction to the description of and characteristics of various freshmen transition models, the importance of freshman transition programs is examined, followed by a review of each of the three types of model programs available to Missouri school

districts. The importance of self-efficacy and its impact on students transitioning from the middle grades to the high school is explained. Self-efficacy can greatly impact how successful students will be when they transition from the middle grades to high school. Students with high self-efficacy are more engaged and successful in class than their peers with lower self-efficacy (Bandura 2006). Students with high self-efficacy participate more in class and score higher on tests and assignments (Bandura 2006).

Characteristics of Middle School Students

Early adolescence can be a challenging time for students in school (Aikins, Bierman, & Parker, 2005; Kingery & Erdley, 2007). Students in this stage of life are experiencing changes, both physically and social-emotionally (Aikins, Bierman, & Parker, 2005; Kingery & Erdley, 2007). According to Maltais, Duscesne, Ratelle, and Feng (2017), life changes contribute to difficulties in transitions. Puberty and identity formation are key elements in a child's life that can cause a child's transition to be difficult. Students make two significant transitions, transitioning from elementary to middle school and from middle school to high school, all in a short amount of time. Adolescents may be changing social groups as well as moving from a single teacher to multiple teachers as part of this process (Maltais, Duscesne, Ratelle, & Feng, 2017).

Physical. Early adolescence is a time of transforming through dramatic developmental changes that progress a child's body into a mature adult (Fisher & Eugster, 2014). Fisher and Eugster (2014) asserted these changes can happen very quickly for some children and more slowly for others. During puberty, the body begins to grow; approximately 17% to 18% of adult height and size develops during puberty. Much of this growth happens in a short amount of time, referred to as a growth spurt. The

growth spurt is caused by the simultaneous release of growth hormones, thyroid hormones, and androgens (Derman, 2013). Typically males experience their growth spurt later than females, by up to two years. Physically, both males and females experience growth beginning with their head, hands, and feet. Later the legs and torso begin to grow into adult proportions. Bones, during this time, become harder and more brittle and muscle development increases (Derman, 2013; Ozdemir, Utkualp, & Pallos, 2016). Males experience a faster rate of muscle development than females, and females experience an increase in body fat. Both males and females begin to develop increased heart and lung size. Both also experience changes in body composition, acne, and vision (Ozdemir et al., 2016). These changes can impact students both socially and emotionally, which can ultimately impact performance in school.

Physical changes during adolescence can have a social impact on the child. During these physical changes, adolescents experience a wide variety of shifts that can affect the students' social standing with their peer group as well as their own emotional stability. Socially, changing adolescents begin to look different or will change at different rates of time than some of their peers. For females, they may begin their menstrual cycle or develop breasts before their peers; males may develop a deeper voice or start growing facial hair before their peers (Mendle & Ferrero, 2012). These changes can affect the way a peer group treats the child. In some cases, this may also lead to new friendships based on adolescents finding peers who are experiencing or have experienced these changes. During this time, adolescents can have various emotions due to the changes (Haynie & Piquero, 2006). If students have been rejected by their peer group, their school work can suffer. They can be less focused and might fall behind academically by missing important

concepts. Aviles, Anderson, and Davila (2006) stated, “Children do not leave their home/community problems at the school door” (p. 34). Children bring their emotional issues into the school and then they create barriers to learning. Some students have difficulty getting along with their peers or have been turned away from their peers and have difficulties academically. They can begin to miss concepts and struggle to understand what is being taught in class. This can turn into frustration; the frustration can turn into possible discipline problems. The discipline problems can lead to time out of the classroom and more learning lost (Aviles et al., 2006). The opposite can be said for others who are experiencing friend group changes. These students may begin to accelerate in academics or extracurricular activities based on their friend group. Students follow those they are closest to, whether positive or negative (Kretsch, Mendle, Cance, & Harden, 2016).

As noted by Kretsch et al. (2016), peer connections are important for students. For some students, peer connections can make or break the high school career. According to Vera et al. (2016), peer connections can contribute to self-efficacy. Vera et al. (2016) explained that according to Bandura’s (2001) research into self-efficacy, a student’s confidence is a predictor of success in school. According Vera et al. (2016), behavior can be determined by observation in a classroom and by peer interaction. This suggests if a student is part of a group who think highly of school, the student will think highly of school. If a student is part of a peer group or community where dropping out of school and school failure are common, the student’s own self efficacy will be affected.

Social-emotional. The social-emotional changes occurring in adolescent children are the beginnings of adolescent development. Children become more aware of

themselves both physically and emotionally (Marcotte, Fortin, Potvin, & Papillon, 2002). Students experience a heightened sense of self consciousness and peer relationship awareness (Aviles et al., 2006; Bishop & Inderbitzen, 1995). This can be a difficult time for some children emotionally that can lead to a depressive episode. The American Psychiatric Association (2013) defined a depressive episode as “a period of depression that persists for at least two weeks” (p. 786). These depressive episodes can lead individuals to be more prone to dropping out of school or committing suicide (Marcotte et al., 2002). Seema and Venkatesh (2017) described adolescence as a time of transition where the individual begins the establishment of a social role where autonomy and cognitive independence play a critical role.

In the school setting, adolescents entering middle school from elementary school experience changes that impact them both socially and emotionally. Socially, these students are meeting new students. Middle school students are often from different elementary schools and are now surrounded by new faces (Lessard & Juvonen, 2018). This can be a difficult time for these students, especially if they came in with a strong friend base (Loke & Lowe, 2014). Girls find this transition more difficult, because girls develop stronger relationships with their friends than most boys. This can cause a higher level of jealousy and conflict among girls, especially when they are surrounded by new peers (Kingery, Erdley, & Marshall, 2011). The friend groups can be also influenced by new classes. Students in elementary generally stay with a peer group for five years, depending on the structure of the elementary school (Carter, Clark, Cushing, & Kennedy, 2005, Lessard & Juvonen, 2018). Carter et al. (2005) stressed if students have been in the same class since kindergarten they may have developed a strong bond with their peer

group. When students transition to middle school, their peer group may change. Students will be incorporated into new classes with new students coming from other elementary schools (Veronneau & Dishion, 2011). Veronneau and Dishion (2011) explained students may not have any classes with their elementary peer group. This is the time when the students begin to develop new friendships and peer groups. In some cases, these new friendships can cause emotional turmoil for students who have only known one group of people for the majority of their lives. For some students who did not have a strong social network coming into school, this transition can be difficult as well (Veronneau & Dishion, 2011).

Peer selection during adolescence. Early adolescence is a time of important social changes that include relationships with parents and movement to the peer group they will stay with throughout their schooling career. Goodwin et al. (2012) and Lessard and Juvonen (2018) found peer attachment and peer acceptance are two contributing factors to a negative transition from elementary to middle school and middle school to high school. The transition students experience can change their relationships with peers. For several of the students, transition from elementary to middle school and from middle school to high school usually means transferring to larger buildings with a larger student population (Goodwin et al., 2012). For some students, moving to a larger school setting will not affect the friendships they have already established, while for others this will mean a whole new friend group or a total loss of friends (Cantin & Boivin, 2004). The student who experiences the total loss of friends can become a lonely adolescent. Students who find themselves alone during the transition are more likely to be depressed and less likely to participate in class than students who transition into middle school with

friends. Peer selection during adolescence can be good predictor of what students will become later in their schooling careers based on the friend type they choose (Gremmen, Dijkstra, Steglich, & Veenstra, 2017). Gremmen et al. (2017) suggested if an adolescent bonds to a peer who excels in academics, the chances of the adolescent mimicking the traits of that student to become more like him or her is high, and the adolescent could possibly excel in academics. The reverse can be said for the adolescent who bonds to a delinquent; the adolescent may take on the characteristics of the delinquent student such as missing school or participating in troublesome acts (Gremmen et al., 2017). Both scenarios are a response to the adolescent wanting to belong and become part of a social group (Baumeister & Leary, 1995).

As a young child, friends can be anyone the child meets; typically the child will find friends based on the social setting and what they are playing at the time (Carter & Nutbrown, 2016). Carter and Nutbrown (2017) stated the child in this stage of life finds friends based on common interests and who is available to play. As the child ages, the friendships take on different roles in the life of the child (Carter & Nutbrown, 2016). Carter and Nutbrown (2016) supported Selman (1980), who found there are five stages in childhood friendship beginning at age three (Stage 0) and progressing to age 12 and up (Stage 4). Selman (1980) explained each stage is different and builds upon the previous stages. Stage 0 (ages 3-7) includes a friendship where children encounter peers for brief moments, and if they do not agree with each other, they do not remain friends. Their friendship is based on their personal expectations of how other children should act. Stage 1 (ages 4-9) is a selfish friendship. This friendship goes beyond the activities the two children are involved in and is more about the friendship itself. Their friendship is based

on what the friends can do for each other; it is a give-and-take relationship and when one of the friends cannot give anymore, then the friendship is over. Stage 2 (ages 6-12) starts the beginning of adolescent friendships. These friendships are more rules related and more akin to a rigid give-and-take relationship. During this friendship, children want to help their friends as much as possible as long as the other friends are willing to pay back the help in kind. The friends begin to understand turn taking. If there is no reciprocation in this relationship, the friendship is likely to fail. This is important when looking at friendships in middle school and understanding how the social dynamic works with young middle students. Stage 3 (ages 11-15) begins the best friend's relationship with children. Children will begin to confide in each other more during this stage of friendship, and "best friend" relationships begin. This is also the stage where jealousy among friends can begin. Gremmen et al. (2017) explained this stage is centered on the transition into middle school and high school. Many issues students have in making the transition to new locations involve friendships. Transitioning from middle school to high school can impact this stage the most. During the transition from middle school to high school, students are typically immersed in an environment that contains new people from other schools. New friendships will develop, and jealousy can be a part of the change. For many students, this is the most difficult part of the transition itself. Stage 4 (ages 12 and up) is considered the mature friendship stage. During this stage, friends are getting closer and developing a stronger emotional closeness than previously (Selman, 1980). Carter and Nutbrown (2016) supported that these are the friendships most students will maintain for a long time. The emphasis of this stage is trust and support (Selman, 1980).

Kingery et al. (2011) supported the research of Selman (1980) and Carter and Nutbrown (2016), who found as young children develop into adolescents, they begin to change the way they determine friends. As adolescents are transitioning to a new school, elementary to middle school and middle school to high school, they begin and develop new friendships with those of similar circumstances or backgrounds. As their friendships develop, they begin to find that they are becoming more similar to each other. Sometimes during this transition, children who have been friends will find that their interests and activities have changed, and the friendship will dissolve and new friendships will develop.

According to Goodwin et al. (2012), selection and socialization and deselection have been examined in relation to externalized characteristics. These characteristics include selection and socialization with relation to tobacco and drug use, sexual attitudes and behaviors, and delinquency. For many students who exhibit these characteristics, social isolation can be a result.

Social isolation. Intimacy and belongingness are intrinsic human needs (Baumeister & Leary, 1995). Baumeister and Leary (1995) asserted adolescents have a need to belong. Between the ages of 13-19, children are changing both physically and emotionally. Relationships with peers are very important during this time, and relationships with peers or lack thereof can be both positive and detrimental to adolescents depending on their relationship status.

Incoming ninth graders to high school may have different emotions during their transition. One prevalent emotion is isolation. Students entering high school may view high school as a very large and daunting environment filled with experiences they have

yet to see. These students may feel anxious and alone in this environment (Laursen & Hartl, 2013). Some students experience social isolation when they have changed peer groups. Students entering a new school may lose touch with the friends they have had for the first eight years of their formal education; instead of searching out new friends or socializing with different groups, they may isolate themselves from everyone else. They have the belief that trying to engage with new peer groups is too stressful and time-consuming (Rubin, 2013). These students have a hard time engaging with others and participating in class (Laursen & Hartl, 2013; Rubin, 2013). Rubin (2013) noted some students never overcome social isolation; the probability increases that these students are at risk of becoming dropouts.

There are mental and physical side effects of social isolation in adolescence. The mental outcomes of social isolation can include a high level of anxiety and depression. London and Ingram (2018) found socially isolated adolescents were significantly associated with depressive symptoms, lower self-esteem, sadness, and anxiety. Stickey, Koyanagi, Schwab-Stone, and Ruchkin (2014) showed there is a connection between social isolation and depression, low self-esteem, sadness, and anxiety; these issues can lead to suicidal tendencies and substance abuse. Caspi, Harrington, Moffitt, Milne, and Poulton (2006) indicated social isolation can cause health risks such as cardiovascular disease, high cholesterol, obesity, and elevated blood pressure later in adulthood.

London and Ingram (2018) found connectivity is critical in the adolescent years. The feeling of connectedness and belonging have been associated with a healthy childhood development (Osterman, 2000). According to Osterman (2000), students experiencing feelings of connectedness and belonging in school will have a better outlook

on school. These students will have a high level of intrinsic motivation and competence (Osterman, 2000). Osterman (2000) noted these students will then have a more positive outlook on school, which means they will be more positive about class work, teachers, and peers. Osterman (2000) suggested the opposite can be said for those who feel excluded; these students have a higher propensity toward behavioral issues, low achievement, low interest in school, and a higher tendency for dropping out.

Transitioning from Middle School to High School

Sweet, Dezarn, and Belluscio (2011) defined transition as “a change, a switch, a move, or conversion to another place or frame of mind” (p. 50). For some students, the most difficult transition is from middle school to high school. This transition can be stressful and can lead the student to fail both academically and socially (Corsello et al., 2017; Kieffer et al., 2014). Different parts of the transition can affect students psychologically and socially due to increased anxiety and increased academic requirements that can lead to students failing to thrive once they transition to high school (Anderson, Jacobs, Schramm, & Splittgerber, 2000; Corsello et al., 2015). Freshman students are considered to be at-risk of dropping out of school. As students move from the middle school to the high school, more factors affect their decisions to drop out of school. Social settings heavily influence students. Students who feel as though they are disconnected from other students are more likely to feel disconnected from school. This disconnection includes not interacting with other social groups within the school, alienation from friends moving into other social groups, feeling harassed by social groups they are not a part of, and not being part of their cohort class (grade retention) (Alexander, Entwisle, & Kabbani, 2001; Marrs, Hemmert, & Jansen, 2007). Bandura

(1986) explained a student's individual learning, development, acquisition of knowledge, and self-regulation is based on outside influences such as parents, peers, and teachers. Bandura (1986) theorized individuals are able to regulate their own thoughts, beliefs, and actions. This thought process only increases a student's risk of having trouble during their transition to high school (Bandura, 1986). Bembenutty, White, and DiBenedetto (2016) explained increased academic and social pressure accompany the transition to high school. These pressures can change the way students respond to environmental influences (Bembenutty et al., 2016). Excessive absences and moving to a new school district are often a way for students to cope with social indiscretion (Suh, Suh, & Houston, 2007). For many students transitioning from middle school to high school, this can be the most difficult time in their lives. Students are faced with psychological impacts of transitioning, transition anxiety, and increased academic requirements. How the students deal with these factors will determine if they are successful in school.

Psychological impacts of transitioning. Students who transition from middle school (grades 6-8) or junior high (grades 7-8) into high school (grades 9-12) experience different psychological changes. Students transitioning from middle to high school experience a change in friends which can create anxiety, lower or raise self-esteem, or lead to a sense of helplessness. Students may also feel an overt amount of stress due to the change of location; high schools are larger in terms of population and building size than middle schools (Goodwin et al., 2012; Martinez, Aricak, Graves, Peters-Myszak, & Nellis, 2011; Rubin, 2013). Other factors impacting incoming ninth graders are class size and workload. Students entering high school for the first time in the ninth grade are asked to change the way they study, and in some cases, the way they learn. Jackson (2014)

found high school curriculum has changed over the years, and high school curriculum compared to middle school curriculum is more rigorous and difficult. Jackson (2014) continued by explaining though high school requirements have always been more difficult, in the last few years, demands put on states for increased test scores and graduating with competitive advantages have made high school more daunting to those entering for the first time. Increased requirements leave students feeling confused and anxious (Jackson, 2014). Loke and Lowe (2013) added some students enter high school where the expectation is for them to already know how to study and take notes. Students not able to meet the expectation of knowing how to study and take notes experience a sense of loss and a feeling of failure if they were never taught how to perform these tasks in the middle grades (Loke & Lowe, 2013). These students could easily give up and decide not to try any more (Beresford, 2013). Class size increase can also have an impact on the way students ask for help. In some cases, if students feel overwhelmed and do not want to draw attention to themselves, they will not ask questions and will fall further behind (Loke & Lowe, 2014). In other cases, students will act out to draw attention somewhere else other than their lack of understanding in the class; this can result in behavior problems (Loke & Lowe, 2014).

According to Suldo and Shaunessy-Dedrick (2013), the transition to high school can make students experience a lower sense of life satisfaction and an increase in externalized behaviors such as drinking alcohol and causing mischief. Students who experience depression will often seek out others with similar depressive symptoms; this can be a time of high social anxiety and increase in misbehavior (Goodwin et al., 2012; Suldo & Shaunessy-Dedrick, 2013). Other factors involved with the transition from

middle school to high school include developmental changes (Martinez et al., 2011). Some incoming ninth graders have shown an increase in anxiety over academic grades and may believe they were not academically prepared for high school. This is especially true for students participating in extracurricular activities in addition to their academic schedule (Hauser, Choate, & Thomas, 2009).

Transition anxiety. Students entering high school from middle school/junior high school can experience a high level of anxiety (Loke & Lowe, 2014). Anxiety can affect the way students perceive the new environment (Loke & Lowe, 2014). Loke and Lowe (2014) expounded, “School transition anxiety is the tension, nervousness, worry, and apprehension that a student experiences about interpersonal relations and the school environment during a transition from one school to the next” (p. 212). If students enter high school with a level of anxiety, they may begin to have lower attendance, higher rates of behavior problems, or they may simply shut down and not want to participate or come to school at all (Barone, Aguirre-Deandreis, & Trickett, 1991; Loke & Lowe, 2014). To some students this can become an illness, and for other students this anxiety may be due to a lack of feeling of belonging (Loke & Lowe, 2014).

According to Cauley and Jovanovich (2006), transition anxiety can be caused by three reasons: academic, procedural, and social. Academic rigor and expectations increase when students transition to high school. Students are responsible for more school work than in previous years. Students transitioning to high school will see that their classes are becoming more difficult and teacher expectations of class work and homework are increasing. These new expectations can create new stress and anxiety for students (Loke & Lowe, 2014).

Increased academic requirements. For some students, the increase in academic requirements at the high school level may also increase problems associated with the high school transition. According to Alspaugh (1998) and Alspaugh and Harting (1995), the transition itself may cause these issues, and in some circumstances, transitions may be easier for students if they only make one transition, such as transitioning from a K-8 elementary to high school versus transitioning from elementary to middle to high school. Some students who enter high school do not feel as though they were properly prepared for the academic requirements (Bottoms, 2008; Cushman, 2006). These students have increased homework loads, and assessments are more difficult and require more time to study.

Another factor student's encounter is the understanding of credits and what it takes to earn them (Beresford, 2013). Some students have difficulty understanding that a certain number of credits have to be earned after four years for them to graduate (Beresford, 2013). This can cause issues with students who were previously promoted students through the grade levels regardless their grades. High schools typically allow students to move on to the next grade designation regardless of grades at the end of the year (Cauley & Jovanovich, 2006). Cauley and Jovanovich (2006) proposed the problem is the students have received no credit for the classes they failed, which puts them at a disadvantage compared to the rest of their cohort; they are now behind in credits but are in the next grade. When the students ultimately become seniors in high school, they may not graduate if they have not made up these credits. They may drop out or go through an alternate route to graduate with their class (Allensworth & Easton, 2005). Freshmen behind in credits earned at the end of their freshman year may decide it is easier to give

up than to make up their credits. Many of these students could eventually drop out of school or become discipline problems (Allensworth & Easton, 2005; Bottoms, 2008).

Transition programs address issues with students as part of their program; these programs typically have an information piece that educates incoming freshmen about the importance of earning credits and what it takes to graduate. Part of the transition program can include an ongoing mentoring piece that includes looking through the student's credits and making sure they are on track to graduate (Johnson, Simon, & Mun, 2014; Saechao, 2014).

At-Risk Students

The transition from the middle grades to high school can be a difficult time, but more so for students already considered at-risk of failing educationally (Bottoms, 2008). According to Bottoms (2008), "Students who are unprepared for high school and fail in the ninth grade are far less likely to graduate" (p. 1). These students have already experienced failure and have struggled in school both academically and socially. They are far more likely to drop out of school and have experienced very little success during their schooling. Some of these students may have already given up on school before they even arrive at the front door of the high school (McKee & Caldarella, 2016). A student's self-efficacy and self-confidence also plays a role in a being considered at-risk. Bandura (2001) found a student's self-efficacy and self-confidence can have an impact on how the student performs in school both academically and socially. A student with high self-efficacy/confidence will do better in school academically and socially compared to peers who have low self-efficacy/confidence (Bandura, 2001). Bandura (2001) asserted students may also model after their peer group. If a student's peer group does not do well

in school or has a negative opinion about school, the student may begin to think like the group, regardless of actual ability (Bandura, 2001).

McKee and Caldarella (2016) and Bowers, Sprott, and Taff (2013) have conducted studies regarding at-risk students and characteristics pertaining to at-risk students. McKee and Caldarella (2016) and Bowers et al. (2013) reported at-risk students can be identified early in life. At the elementary level, characteristics such as low reading scores, grade retention, poor attendance, low socioeconomic status (SES), poor behavior, and the influence of the family can all influence at-risk behavior (Bowers et al., 2013). Characteristics continue into the middle school years when certain demographic characteristics, English proficiency, and multiple school changes can have an impact on students (McKee & Caldarella, 2016). As students proceed into the high school setting, more characteristics will present themselves. Students can become involved in more destructive behaviors, such as early sexual experiences, increased truancy, and drugs. These destructive behaviors can cause crime, poor grades, lowered SES, and low self-esteem. Finally, student-teacher relationships have been identified in predicting school dropouts (Duffy & Elwood, 2013).

Middle school is a difficult time for many students, especially those who are categorized as at-risk (Maltais et al., 2017). Some consider the transition from elementary school to middle school a very traumatic experience for students (Maltais et al., 2017). Maltais et al. (2017) found there are significant changes in students both psychologically and academically during this transition. Psychological distress remained constant between both boys and girls, but academically girls fared better than boys (Maltais et al., 2017).

According to Maltais et al. (2017), life changes contribute to difficulties in transitions. Puberty and identity formation are key elements in a child's life that can cause a child's transition into middle school to be difficult (Maltais et al., 2017). Kingery and Erdley (2007) found peer attachment and peer acceptance are two contributing factors to a negative transition from elementary to middle school. Students who find themselves alone during the transition are more depressed and less likely to participate in class than students who transitioned into middle school with friends (Kingery & Erdley, 2007). A child who incurs a difficult transitional period may develop at-risk attributes that may cause the student to drop out later (Kingery & Erdley, 2007).

As students move from the middle grades to the secondary level, more factors affect their decisions to drop out of school. Social settings heavily influence students. Students who feel as though they are disconnected from other students are more likely to feel disconnected from school (Bowers et al., 2013). This disconnection includes not interacting with other social groups within the school, alienation from friends moving into other social groups, feeling harassed by social groups they are not a part of, and not being part of their cohort class (grade retention) (Bowers et al., 2013; Marrs et al., 2007). Excessive absences and moving to a new school district are often a way for these students to cope with social indiscretion (Suh et al., 2007).

Potential dropouts take a heavier courseload of core classes than students who graduate. Heinrich, Hickman, Bartholomew, and Mathwig (2008) found most potential dropouts are required to take more core classes than those of their peers. These classes are required for remediation of the classes they may have failed during their middle school years (Heinrich et al., 2008). Heinrich et al. (2008) also found students at-risk

have a significantly lower grade-point average in ninth grade than graduates. Tests, coursework, and keeping up with the general pace of classes are difficult for these students (Marrs et al., 2007).

Re-teaching students at the secondary level also becomes a problem (McKee & Caldarella, 2016). Students become frustrated because they have to retake the same lesson or classes due to failing grades (McKee & Caldarella, 2016). These students often feel alienated from the rest of their peers because they are not meeting the same standards (McKee & Caldarella, 2016). Students may feel it is easier to leave school rather than repeating the course again (McKee & Caldarella, 2016).

Low-SES students are usually alienated from their peers because they fall into a different social class. Many students from low-SES situations leave school without degrees (Alexander et al., 2001). Students from low-SES families usually come from single-parent homes with parents who are not engaged in the child's learning (Alexander et al., 2001). Roughly 56% of students who drop out of school come from families whose involvement in their child's schooling is non-existent (Alexander et al., 2001).

A student's attendance is another predictor of dropping out of school. The willingness of a student to come to school and be engaged in the material presented can predict if a student will stay in school. Students who do not attend school on a regular basis fall behind academically due to not being present for instruction and subsequently fall further behind in their graduation requirements. For some students, this pattern starts in high school, but for others the pattern starts earlier. For students in the elementary grades, attendance is obligatory and is monitored by parents and caregivers. If a student has declining attendance in the elementary grades, the decline is largely due to the

parents and caregivers. When the students enter secondary schools, their attendance has shifted to their own decisions on coming to school (Kieffer et al., 2014). McKee and Caldarella (2016) found, “Seventy eight percent of students with attendance rates of 80% or lower have a higher probability of dropping out of school” (p. 518).

Transition programs address some potential at-risk issues by issuing mentors or tutors for some of the at-risk students. These mentoring programs can include students from within the school or from community partners willing to work with at-risk youth (Anastasia, Skinner, & Mundhenk, 2012). Other parts of the transition program may include getting involved in activities. This could help in the student’s connection to the school. The more a student feels belongingness, the more they will want to succeed and take part in what the school has to offer.

Freshman Transition Models

Freshman transition models have been developed in order to help students transitioning from middle/junior high school to high school. These models help students academically and socially through a supportive environment. Based on the theoretical framework of Bandura (1986), ninth-grade transition programs help students develop self-efficacy. According to Bandura (1986), reciprocal determination is the process of people being a product of their environment. The intention of the ninth-grade transition program is to guide freshman students to a successful career at the high school by providing them with positive experiences through different programs that will help them be better students (Saechao, 2014).

Hampton (2013) found research by Quint (2006) stating there are many different high schools across the country that have implemented some type of freshman transition

program, but many of them do not utilize programs that have specific strategies put together to make a single program. Bell (2003) established it is important for freshmen at risk of dropping out to increase both academically and socially throughout the freshman year. If an at-risk student fails either academically or socially, the student may drop out or be faced with more than the traditional four years of school. One of the challenges for incoming ninth graders is the change in the academic and social environment (Weiss & Baker-Smith, 2010). Weiss and Baker-Smith (2010) found it was because academic success is strongly related to students' competence and adaptability to various environments. These students need support in understanding how academics and the social environment will change (Weiss & Baker-Smith, 2010). The success of students in the ninth grade can determine if they will graduate from high school (Allen, 2011; Blackwell, 2008). According to Cushman (2006) and Hauser et al. (2009), students like to be involved in the high school before they even arrive. Students enjoy school visits to the high school or having student speakers come and talk about the high school experience. Some school districts offer incoming ninth graders programs at the beginning of school that allow staff and students to meet before school begins. It also gives students the chance to see the school before the rest of the student body returns. Many schools go through a full school day with just freshmen in attendance. This gives the freshmen the opportunity to go to all of their classes and visit with teachers and classmates, (Cushman, 2006; Hauser et al., 2009).

The researcher reviewed literature concerning freshman transition programs and identified three commonly utilized specific models. The specific models are the

Freshman Academies model, the Mentorship model, and the Summer Bridge model. Components of each of the models are detailed.

Freshman Academies. Freshman Academies have become more prevalent in schools across Missouri and the nation. According to Jackson (2014), the Freshman Academy idea was originally developed for colleges and universities as a way to ease freshman students into college life. Jackson (2014) suggested the idea was founded to help address problematic freshman retention rates. Incoming freshman leave home for the first time and have to become reliant on themselves in a short amount of time (Jackson, 2014). Jackson (2014) found incoming freshman experience changes to their social and physical environments that create problems for some students. For this reason, many students dealing with the change in social and physical environments drop out of college during their first year (Jackson, 2014). The purpose of the freshman academies on the college level was to put other freshmen together to help them cope and adjust to college life with a group going through similar circumstances (Jackson, 2014).

Bandura (2001) identified a student's self-efficacy as a strong predictor of the student's ability to be successful in school. Vera et al. (2016) added that a student's observation of peers of similar demographics affects confidence in the classroom and in school. The effect on confidence can be both positive and negative for students (Vera et al., 2016). Gremmen et al. (2017) stated students mimic individuals in their surroundings. When students excel in academics, other students in the group could potentially excel in academics; for those with behavior issues and uninterested in school, the others in the group could feel the same way and not do well in school (Gremmen et al., 2017).

Snipes (2015) and Letgers et al. (2013) both suggested that to create a Freshman Academy specific traits should be in place, including a freshman-specific principal responsible for freshman students and freshman teachers, a freshman counselor, freshman-specific teachers, an area of the high school separated from the rest of the high school, and common collaboration time. The common collaboration time allows teachers to discuss teaching strategies and student needs and also allows students to be included in the meetings (Snipes, 2015). The concept of community where students and staff are working together for one purpose, freshman success, needs to be incorporated into the high school setting (Snipes, 2015). Snipes (2015) also stated without freshman-specific principals, teachers, counselors, common collaboration time, and an area of the high school separated from the rest of the high school, the Freshman Academy is just another building with teachers. All of the components working together create a productive environment where students are eased into high school (Snipes, 2015).

Programs utilizing the stand-alone model have a separate building dedicated to freshman students (McIntosh & White, 2006). This building houses the freshmen and includes space for a principal, counselor, secretary, freshman-specific teachers, and a common area for the students to eat (McIntosh & White, 2006). This building should be all-inclusive; the intent is not to have the freshmen enter the regular high school containing upperclassman (McIntosh & White, 2006). McIntosh and White (2006) found stand-alone programs should include specific components such as common planning time for core teachers to discuss students and instructional strategies; freshman lunch that only includes freshman teachers; freshman homeroom; eighth-grade transition programs; and a thorough freshman transition program to introduce students to the high school. The main

benefit of the stand-alone model is the development of a community feeling; students are not required to attend school with upperclassmen and they can spend their time learning what it takes to be high school student (McIntosh & White, 2006). Alspaugh (1998) and Bottoms (2008) asserted this separation can be problem because it does create another transition students will have to endure before they get to high school as an upperclassman, in some cases making it worse for the freshmen.

Programs utilizing the inclusion model are programs built into the regular high school (Habeeb, 2013). Space is either built or designated to be separate from the rest of the high school yet built into the same building (Habeeb, 2013). The intention of the inclusion model is for students to be slowly integrated into the high school setting without being put into the mainstream or separated from the rest of the high school (Habeeb, 2013). The inclusion model of the Freshman Academy makes use of the main high school building instead of a separate location (Habeeb, 2013). Classes are arranged in a different section of the high school and keep the freshmen isolated for a majority of the school day (Habeeb, 2013). Freshman students typically take all of their core classes in this section and have elective courses outside of this section; the elective courses could contain upperclassmen (Habeeb, 2013). Students are exposed to the regular high school environment and upperclassmen for a short amount of time instead of all day (Habeeb, 2013). Core classes are freshman-only courses so they can remain with their peers (Habeeb, 2013). Some of the inclusion model programs utilize teaming; students are enrolled into individual teams so they remain with a smaller, more select, peer group (Habeeb, 2013). Students are assigned to teams at random (Habeeb, 2013). There are four core classes and each team includes math, science, English, and social studies teachers

(Habeeb, 2013). Students have a smoother transition into high school by a gradually including freshmen into the regular population of the school (Habeeb, 2013). For those students who have social issues, this can be beneficial, as the inclusion model does not put students into the high school with upperclassmen immediately (Habeeb, 2013). Small class sizes and eliminating or limiting the amount of time the students spend with upperclassmen ease the transition (Habeeb, 2013). This also helps with those struggling with academic success (Somers & Garcia, 2016). The argument against the inclusion model is that this is another transition for the freshman students, though much more gradual than the stand-alone model (Alspaugh, 1998; Bottoms, 2008).

Both stand-alone and inclusion programs have very similar characteristics. The main difference between the two is the physical location of the Freshman Academy. Both programs utilize many of the same techniques that McIntosh and White (2006) described as strategies necessary for Freshman Academies to work. Hampton (2013) cited Cotton (2001) as saying:

Proponents of small schools or schools with smaller learning communities argue that teachers and students experience a less intimidating and more communal environment when schools move toward personalized instruction and greater student visibility through reduced class sizes, increased teacher interaction (e.g., individualized instruction, counseling), and physical segregation of students. The greater intimacy associated with the smaller learning environment is thought to increase a sense of student belonging and thereby decrease absenteeism, violence, and student dropout rates. (p. 20)

Both models also have the same downside, as they both create another transition for students before they enter high school full time, though the inclusion model is a more gradual process (Alspaugh, 1998; Bottoms, 2008).

Freshman Academies provide students a smaller learning environment through teams. These teams allow for smaller classroom sizes, core collaboration, and classes in close proximity to each other. In the stand-alone model, all classrooms are in close proximity, whereas the inclusion model allows for students to travel outside of the Freshman Academy. According to Cushman (2006), classrooms closer together and in the same area allow students to find their classes more easily and lead to student bonding. Many freshmen struggle socially; one of the intentions of the Freshman Academy is to introduce students to a smaller population to make it easier to adapt socially (Cushman, 2006). Teaming also allows teachers to observe students who are struggling both socially and academically and provide them with the needed support so they can be more successful and not be overwhelmed (Cushman, 2006). Cushman (2006) found a sense of belongingness is very important to students but even more so for students entering high school for the first time as ninth graders. Cushman (2006) emphasized ninth graders who enter high school without a system in place to help freshmen, such as a Freshman Academy, are harder to identify as having academic and attendance issues. Freshman Academies assist teachers in making those observations so they can provide the needed support (Cushman, 2006).

Mentorship model. Mentorship for incoming freshman students can be a crucial part of success during the first year of high school (Alexander, 2015). According to Alexander (2015), mentoring programs generally follow three purposes. The first purpose

of a mentoring program is to create an environment of trust where the students feel comfortable and safe (Alexander, 2015). The mentors need to be available to listen and understand the individuals they are mentoring (Alexander, 2015). The second purpose of a mentoring program in a school setting is to show new students around the physical building (Alexander, 2015). When freshmen enter a new school for the first time they are typically lost, which can create stress and anxiety (Alexander, 2015). Having mentors walk and talk with them while showing the freshmen the important parts of the building can create trust and also can relieve stress and anxiety (Alexander, 2015). The final purpose of a mentoring program is to produce leaders and pass on the traits to mentees (Alexander, 2015). When schools are looking for mentors, whether adult or student mentors, individuals with good leadership, communication, and decision-making skills are need (Alexander, 2015). The hope is the mentors will pass on some positive traits to their mentees so the mentees may become mentors someday (Alexander, 2015). Each school district is different in their use of mentoring programs, but many of them use mentors in one way or another (Alexander, 2015).

For some school districts, the mentorship model is a better choice due to available resources, upperclassmen, teachers, and community partnerships. Dappen and Isernhagen (2005) stated, “Schools provide an optimal site for mentoring with numerous advantages: Youth are already present at school, the school provides a comfort for mentors, school based programs are more cost effective, and schools often have links to other community resources” (p. 29). Districts with in-school mentors have two different methods or a combination of both students as mentors and teachers as mentors. The purpose of in-school mentorship programs is the same – to give students a sense of community and a

sense of belonging (Lawner, Beltz, & Moore, 2013). Students who believe they belong to a school have a greater chance for success and achievement (Lawner et al., 2013).

Students who believe they belong come to school more often and could potentially have better attendance, fewer discipline problems, and better grades (Lawner et al., 2013).

Schools that participate in peer mentoring programs such as cross-age mentoring utilize older students to mentor younger students (Karcher & DuBois, 2014). Students learn from others they can relate to through development of relationships with students close to their age (Noddings, 2005). Upperclassmen selected to be mentors can be the bridge to high school to make the transition easier for incoming freshmen (Noddings, 2005). According to Noddings (2005), mentors can share lessons that begin with generalized information about high school and requirements such as credits and grade-point average and move to information that includes character development, motivation, self-worth, and future ambitions outside of school. Vera et al. (2016) found that Bandura's (2001) model of a student's self-efficacy can be enhanced through participation in mentorship programs that enhance positive attributes of school and what it takes to have a positive experience. Mentor students have expertise on what it takes to be a high school student, and the hope is that they will guide the younger students to make good choices in school and teach them how to be successful (Vera et al., 2016). Mentor students are selected in order to make a positive impact on incoming freshmen (Vera et al., 2016). Some schools utilize a committee of teachers and current mentors to select new mentors (Karcher & DuBois, 2014). Other schools use an application and interview process when selecting mentors (Karcher & DuBois, 2014). Karcher and DuBois (2014) found once selected, mentor students are trained on the importance of

being leaders and mentors to provide the best experience and knowledge for mentees. Once trained, mentors have other opportunities to assist younger students. School counselors utilize groups of mentors to assist in the delivery of guidance lessons and have found that when students deliver the material, the developmental program may result in a significant positive impact. The intention is the student mentors will learn how to build relationships with mentees to guide them to make good choices and keep them motivated to stay in school (DuBois, Portillo, Rhodes, Silverthorn, & Valentine, 2011; Roybal et al., 2014).

Other school districts utilize adults to serve as mentors; these adults can be teachers or outside community partners (Anderson, 2013). Anderson (2013) found school-based adult mentorship programs utilize teachers to assist in the selection of students they believe would benefit from a mentor or a mentoring program. These mentors provide recreational opportunities, academic assistance, and expose youth to programs to assist in their cognitive and emotional development (Anderson, 2013).

Incoming freshmen often deal with social anxiety when entering high school for the first time alone and without friends (Goodwin et al., 2012). Some incoming freshmen are afraid of what they will face when entering high school for the first time; they come in worried about what the expectations will be of them (Goodwin et al., 2012).

Preconceived notions can hurt a student's attendance, academics, and behavior. Students afraid to come to school will not come to school. Students not in school will not receive instruction and will fall behind their cohort class. Some students may respond by increasing negative behaviors, which could lead to discipline issues (Alexander, 2015). Students exhibiting negative behaviors generally are just trying to find a way to fit in, and

negative behaviors may be their way to get involved with a group of students or to impress the older population. Student and adult mentoring programs can help students understand they are not alone and there is someone there to guide them (Noddings, 2005). According to Alexander (2015), mentoring programs hold students accountable academically while developing them socially. The result is for students to reach high academic standards and make connections to feel as though they belong at the school (Alexander, 2015). Alexander (2015) found mentorship programs that focus on the social aspect want incoming freshmen to know they are not alone; they have friends in the school that they can go to when they need help or have questions. Mentor programs are normally led by upperclassmen. The focus is on relationships and connecting the freshmen to other people and resources to help them be more successful and adapted to school. Programs utilizing relationship building can have an effect on academics as well. Students who have a feeling of belonging want to come to school, and students in school and participating in class learn the necessary material to be successful.

Summer Bridge model. Summer Bridge models utilize a mentorship and academic philosophy (Roderick, Engel, & Nagaoka, 2003). The idea behind the Summer Bridge model is students entering the program receive academic enrichment as well as peer and teacher mentorship (Roderick et al., 2003). These programs can range from one day to eight weeks depending on the length of the summer and depth of the instruction (Roderick et al., 2003). Students are exposed to academic enrichment so they do not suffer from academic loss throughout the summer (Roderick et al., 2003). This exposure is not limited to core academics such as math, English, science and social studies; students are also involved in learning goal-setting skills, relationship-building skills, and

key academic skills they need when entering the ninth grade (Roderick et al., 2003). Roderick et al. (2003) explained other opportunities for students in the Summer Bridge model can include college visits and community service. The main goal of the Summer Bridge model is to enhance students' self-esteem, motivation, and understanding of what it means to be freshmen in high school (Roderick et al., 2003). According to Bandura (1986), a student's ability to meet his or her own standard and monitor performance, or self-efficacy, is essential to development. Summer Bridge models can develop this trait with the secondary goal to retain knowledge known to be lost during the summer (Bottoms, 2008). According to Bottoms (2008), Summer Bridge models can be useful to those who have the potential to drop out of school or are academically behind. Bottoms (2008) stated the Summer Bridge model should be mandatory for all low academic achievers according to state testing results. According to Bottoms (2008):

The intent of the Summer Bridge model is to address academic deficits, particularly in language arts, reading, and mathematics; assist students in acquiring the coping, study, relationship and time management skills necessary for success in high school; and introduce them to the important role of high school in achieving their goals. (p. 5)

Summary

The transition from middle school to high school can be a difficult change for students; some students embrace the change and thrive, but for others this can be one of the most difficult times in their lives. Students at this time in their lives, between the ages of 13 and 14, are experiencing many different changes physically, emotionally, and mentally. Physically, their bodies are growing and developing, emotionally their

hormones are increasing, and mentally their thought processes are changing. Students are learning to be more social individuals and when they transition to high school, they typically encounter new students and new relationships. They are finding their old friendships are not the same, so they move on to new ones. For many, this is very difficult and hard to grasp.

For others, the change in physical location and environment affects them. Moving from a smaller middle school to a larger high school can affect students negatively. This can cause increased anxiety that can lead to withdrawal from school due to overwhelming circumstances. Bandura (1986) explained self-efficacy is based on the personal interpretation of one's competencies based on past experiences. A student with a high perception of their efficacy demonstrates greater self-confidence and actualization (Bandura, 1986). Students with high self-efficacy accomplish more and have greater self-fulfillment in the tasks they complete (Bouffard et al., 2001), whereas students with low self-sufficiency avoid doing hard work, give up easily, and avoid anything perceived to be a threat to self (Usta, 2017). Transitioning from one school to another can be difficult, especially for those with low self-efficacy (Lofgran, Smith, & Whiting, 2015).

Schools are considering freshman transition models as a way to better help incoming freshman students be successful in high school. Based on the researcher's review of literature, three models have been developed by different school districts to help in the transition: Freshman Academies, Mentorship programs, and Summer Bridge models. Some schools may choose to develop their own unique freshman transition programs. The researcher considers this a fourth model. All of the models were developed to help students make the transition to high school easier and less stressful so

they will be successful and complete high school. The researcher reviewed studies on the purpose of ninth-grade transition programs and the positive and negative aspects (Alexander, 2015; Anderson, 2013; Lawner et al., 2013), but found little research comparing particular freshman transition program models to each other in the areas of academic achievement, attendance, and discipline.

Chapter Three details the researcher's design and methodology for conducting a study to address the perceived gap in the research of comparing particular freshman transition program models for success at increasing academic achievement, increasing attendance, and decreasing discipline referrals. Chapter Three includes the research design, the research question, null hypotheses, participant information, and sampling procedures. Research setting, instrumentation, and data treatment are also presented.

CHAPTER THREE
RESEARCH DESIGN AND METHODOLOGY

Introduction

School districts in Missouri have responded to improvement efforts called for by the MODESE (2018) in different ways. Some have offered rewards for academic achievement; others have introduced new programs such as one-to-one technology or ninth-grade transition programs. Ninth-grade transition models are designed to provide awareness and supports to freshman students and parents when leaving the eighth grade and entering the high school. Any time students make a transition, even the typical transitions made to either sixth or seventh grade and to ninth grade, the probability of negative effects is higher (Allen, 2011; Benner et al., 2017; Cushman, 2006; Roybal et al., 2014). Ninth graders are generally classified as an at-risk population of students with problems such as high anxiety, depression, stress from new groupings, and lower academic achievement and attendance (Blackwell, 2008; Laursen & Hartl, 2013; Suh & Suh, 2007). Ninth-grade transition programs might offer incoming freshmen the opportunity to better understand the role and expectations of a high school student. Transition programs provide them with skills, social supports from peers and teachers, and structure in order to acclimate successfully to a new academic setting (Allen, 2011; Alspaugh & Harting, 1995; Blackwell, 2008; Hauser et al., 2009, Roybal et al., 2014).

The purpose of this study is to establish which if any of the three ninth-grade transition programs – Freshman Academies, Mentorship programs, or Summer Bridge models – has the most positive effect on student achievement, attendance, and discipline. The participants of the study, as well as the sampling procedure, are discussed in Chapter

Three. The researcher describes and explains the research setting, research design, procedures, instrumentation, and data treatment to answer the following research question and null hypotheses:

Research Question

The following research question was developed to guide this study:

1. What are the differences in attendance, discipline referrals, and English II and Algebra I end-of-course test scores among the three ninth-grade transition models identified?

Null Hypotheses

H₀₁: There are no statistically significant differences in Algebra I end-of-course test scores among the three ninth-grade transition models identified in this study.

H₀₂: There are no statistically significant differences in English II end-of-course test scores among the three ninth-grade transition models identified in this study.

H₀₃: There are no statistically significant differences in attendance percentages among the three ninth-grade transition models identified in this study.

H₀₄: There are no statistically significant differences in the number of discipline referrals among the three ninth-grade transition models identified in this study.

Participants

The researcher will seek participation from high school principals serving 283 public school districts in Missouri classified as public and K-12. Of the 283 school districts, 331 high schools serve grades 9-12. According to the MODESE (2018), the comprehensive enrollment of these school districts in Missouri is 883,913. The age range of the students is 14-18 years old. The ethnic background of the Missouri student

population is 15.9% Black, 6.2% Hispanic, 71.7% White, and 51.2% (443,777 students qualified for free or reduced lunch (MODESE, 2018).

Sampling Procedures

The researcher utilized a survey to identify potential participants for the study. The researcher sent a survey to 331 Missouri public high school principals. A purposive sample was used for the selection of participants in the study. All 283 Missouri public school districts are eligible to participate if they meet the criteria established for inclusion. The criteria includes being a Missouri public high school that serves grades nine through 12 and that implements a freshman transition program. The criterion for selection allowed the researcher to include all participants of interest. Participants of interest are ninth-grade students who have been educated in a freshman transition program. All survey responses were secured and password-encrypted with QuestionPro software. QuestionPro has built-in safeguards to ensure the study remains secure and confidential. Data concerning high school test scores, attendance, and discipline will be gathered from the MODESE (2018) website. Each participating school will be compared to determine the success of the ninth-grade transition program in the above-stated categories. Bias by the researcher is limited, as the data are collected and stored by MODESE on their website. The data are available to the public and are considered factual. Data collected from the survey will be organized and calculated by a third party to limit researcher bias.

Research Setting

Three hundred thirty-one high school principals in 283 school districts in Missouri were sent surveys to determine if the high schools implement a ninth-grade

transition program as part of their transition from eighth grade to ninth grade. The school districts researched in this study will be limited to schools that are K-12, public, and implementing a ninth-grade transition program. Districts in this study will vary in population, education level of the community population, income, and poverty level.

Research Design

The researcher conducted a causal-comparative study incorporating the analysis of quantitative data, which allowed the researcher to create an in-depth analysis of the effects of ninth-grade transition programs. The effects were determined by analyzing attendance rates, academic achievement as measured by EOC scores, and discipline referrals. A causal-comparative study was used in order to examine the differences among ninth-grade transition programs and how they affect EOC scores, attendance, and discipline events. The researcher conducted the comparison utilizing an ex post facto study design, comparing existing data for the following dependent variables: EOC Algebra I and English II scores, attendance percentage, and major discipline referrals. The design was selected as it allowed the researcher to determine if a significant difference in the dependent variables existed among the freshmen transition models.

Mills and Gay (2015) stated:

A causal comparative research design is used to compare groups to determine their cause, or reason for existing differences in the behavior or status of groups or individuals. Such research is known as ex post facto because both the effect and the alleged cause have already occurred and must be studied in retrospect. (p. 250)

The researcher began by sending a survey to all public high schools in Missouri to identify established ninth-grade transition programs. High school administrators who responded to the survey were then considered participants, and the researcher began the process of collecting data from the MODESE (2018). The data collected included EOC English II and Algebra I test scores, attendance rates, and number of major discipline referrals. The EOC scores for English II and Algebra were calculated based on proficient and advanced percentages from the MODESE (2018) website. The researcher then investigated each ninth-grade transition program's success to provide data to assist school administrators in making an informed decision regarding the success of transition programs in helping students be successful transitioning from eighth to ninth grade. If significant differences are found as a result of the study, and if all other internal and external variables are constant between the groups, the researcher can reasonably suggest the ninth-grade transition program was successful at increasing attendance rates, improving student academic achievement, and decreasing behavior incidents.

The independent variables for this study are the presence of one of the three models of ninth-grade transition programs: Freshman Academies, Mentorship programs, or Summer Bridge models. The dependent variables are school-related and include attendance, academic achievement as measured by EOC scores in English II and Algebra I, and discipline referrals. Data were collected through a survey of public high school principals in Missouri and from the public records on the website of the MODESE (2018).

The surveys were delivered through QuestionPro and emailed to all public high school principals in Missouri with grades nine through 12 in their buildings. Data were

collected through the QuestionPro software for confidentiality. The researcher and the statistician were the only people with access to the data. The intent of the researcher was to compare ninth-grade transition program model types in order to determine their effects on the dependent variables. The identification of school districts with a ninth-grade transition program was accomplished by sending a survey via email to all public high schools in Missouri with ninth grade as part of the high school.

Procedures

Approval from the Southwest Baptist University Research Review Board (RRB) was applied for and received. After approval was granted, the researcher established a list of all the high schools in Missouri with grades 9-12. The researcher then utilized QuestionPro software to develop a survey to send out to all principals of 9-12 high schools; the survey was researcher-developed. QuestionPro software was used to email all predetermined principals and to gather data from the survey. QuestionPro software provides a safe and secure database that utilizes safeguards to ensure confidentiality. Once results from the survey were received, the researcher entered the data into SPSS. The SPSS statistics software program was used to run a one-way ANOVA to compare data to determine if significant differences exist among the independent variables (freshman transition programs) in terms of the dependent variables (English II and Algebra I EOC student test scores, attendance rates and discipline referrals) to determine which freshman transition program offers schools the most success when compared to the other programs.

Instrumentation

The researcher utilized a researcher-developed survey to determine the high schools in Missouri implementing a ninth-grade transition program and the models the schools implemented. The researcher developed the survey, as no survey was found that matched the purpose of this study. Survey questions were developed based upon a review of the literature and suggestions from the dissertation committee and from a validity and reliability panel of experienced educators and researchers who have previously developed survey instruments utilized in research studies. The decision concerning the contents of the survey was also based on the information needed to address the research question and null hypotheses.

As the survey was researcher-developed, validity and reliability were established before being sent to the population of interest. The researcher gave a copy of the survey to a panel of six educators with doctoral degrees and experience with survey development. The panel was asked to provide feedback and to determine the face validity of the survey by doing a review of the questions and deciding if the questions addressed the topic and would provide the information needed. The researcher adjusted the questions as suggested. The researcher then asked the panel and the three members of the dissertation committee to test for content validity. The nine panel members were asked to complete the index of item-objective congruence created by Rovinelli and Hambleton (1977). Members were asked to review each question on the survey to determine if the question had clarity of meaning and was a good match for the topic and the information sought. A three-point scale was used with the members asked to award one point if the question was a good match, zero points if not sure, and negative one if not a match. The

researcher retained all questions with an average higher than 0.60, adjusted any question below 0.60, and sent the adjusted questions to the members for review of the adjustments. Questions adjusted by the researcher were approved by the panel. The researcher therefore considers the instrument to be valid.

The researcher then formed two groups – one of four former high school administrators with knowledge of or experience with ninth-grade transition programs and their purpose and one group of four current high school administrators with knowledge of ninth-grade transition programs and their purpose but without a ninth-grade transition program in their schools. The researcher met with each group at separate times and asked each group to complete the survey. After each group finished the survey, the researcher asked the participants for feedback as to improvements to the survey. Nether group made any suggestions for improvement. The researcher compared information from the completed surveys of the groups to each other, and the information appeared consistent with the intent of the researcher. The test-retest method was utilized, and the researcher considers the survey a reliable instrument. The tested survey included the following questions:

1. Does your school have a ninth grade transition program? If the answer is no, thank you for your time.
2. Do you utilize one of the models listed below? _____YES _____NO
 - a. Freshman Academy Model – Stand-alone centers or buildings attached to the main high school that provide freshman with their own space and keep them separated from the rest of the high school for a majority of the day.

b. Mentorship Model – The utilization of upperclassmen or teachers to personally mentor freshman students during school or after school hours.

Teachers provide freshman students with resources and knowledge on what it takes to be successful in high school.

c. Summer Bridge Model – Providing incoming freshman students with academic enrichment and positive mentorship during the summer before they become freshman students.

3. If you answered YES to Question 2, which program do you utilize? _____

4. If you answered NO to Question 2, what type of program do you use? Please describe.

5. If you answered YES to Question 2, describe the successes freshman transition program.

6. If you answered NO to Question 2, describe the obstacles to your freshman transition program.

The data collected from this survey were used to compare three specific models of ninth-grade transition programs. The researcher compared Algebra I and English II EOC results to determine if a difference in academic achievement was significant among the models. Data for school attendance and major discipline records were also compared to determine if a significant difference existed among the ninth-grade transition models examined. The process for constructing the Algebra I and English II EOC examinations included Questar and Riverside Publishing’s use of content-related validity evidence that supports test interpretation. Questar and Riverside Publishing developed a team of specialists to create a detailed item and passage development plan based on blueprints

designed for each area tested. These blueprints were developed for each content area using necessary tested items from Missouri course-level expectations. Each blueprint included an outline of the review process for developed items and passages. This process included internal Questar reviews, MODESE item review, and content and bias review by Missouri educators (MODESE, 2018). The EOC examinations are administered by individual school districts by trained staff, and results are reported directly to the MODESE (2018). The MODESE (2018) then takes the scores and calculates them and reports them on the MODESE website for public view. Student attendance and discipline are reported to the MODESE (2018) using a system management program such as Tyler SIS or PowerSchool. Districts are responsible for their own attendance and discipline reporting to the MODESE (2018).

Data Treatment

The researcher organized the responses to the survey received from participating high school principals into the following categories: Freshmen Center/Freshmen Academy model, Mentorship model, Summer Bridge model, and Other/Self-Designed. After organizing the responses into model groups, the researcher accessed the MODESE website to collect data. The data retrieved by the researcher included English II and Algebra I EOC test scores for the past three years for schools that implemented freshman transition program; the most current year is 2018. The researcher also collected attendance and discipline referral data from the MODESE (2018) website from before the high school had a ninth-grade transition program in addition to the most current data attendance and discipline referral data with the ninth-grade transition program in operation. The researcher retrieved the last three years of data to compare which of the

ninth-grade transition programs was most effective in increasing test scores, increasing attendance, and decreasing discipline referrals.

The researcher utilized a one-way analysis of variance (one-way ANOVA) to compare the data to determine if significant differences exist among the independent variables (freshman transition programs) and the dependent variables (English II and Algebra I EOC student test scores, attendance rates, and discipline referrals). The one-way ANOVA is used to determine if there is any significant difference between the means of two or more independent groups (Laerd Statistics, 2017). The researcher compared the English II and Algebra I EOC student test scores utilizing an ANOVA with the three models as the independent variables and the three years of EOC scores as the dependent variable. A second ANOVA was used to compare attendance and discipline rates with the three models as the independent variables and the three years of attendance and discipline rates as the dependent variables. The researcher utilized an ANOVA, as it is the appropriate statistic when comparing three or more independent variables (Laerd Statistics, 2017). The purpose was to determine if any of the means in the models were significantly different from others by testing the null hypotheses. An ANOVA can determine if there is a significant difference among the groups but cannot determine between which groups the difference exists. Tukey's honestly significant difference (HSD) post-hoc test will be run in SPSS statistical software to determine where the differences do occur. If the participants are unequal, then the researcher may run a Sidak post-hoc test. If there are no significant differences indicated, then the post-hoc test will not be performed.

The results are valid, because the independent observations utilized as the research data are public information collected by a third party, thereby eliminating researcher bias as a factor. The ANOVA was run to compare the differences in Algebra I and English II EOC scores, attendance, and discipline among the three ninth-grade transition programs. The groups are assumed homogeneous only after conducting a post-hoc test to determine homogeneity of variance and the significance of greater than $p > .05$. Normality of the models was determined by running histograms for each model and looking at the histograms for normality of the curve and the skewing potential. If any of the assumptions are not met, the researcher will need to address the possibly with an additional post-hoc test. After completion of the ANOVAs, the researcher was then able to draw conclusions to reject or fail to reject the null hypotheses. The researcher then addressed the qualitative data.

The qualitative portion consisted of determining how many of the respondents have a ninth-grade transition program. The number of schools indicating a ninth-grade transition program and utilizing one of the listed models of ninth-grade transition programs was tabulated. The results were the content for descriptive statistics tables concerning survey questions four and five. For question six, the researcher utilized these data to determine if there were other programs available besides the programs listed in the survey. For question seven and eight, the researcher utilized these results to determine what successes and obstacles other schools faced when utilizing freshman transition programs.

After completion of the one-way ANOVA and the associated post-hoc test, the researcher was then able to draw a conclusion to reject or failure to reject the null

hypotheses. The results are detailed in Chapter Four. For question three, the researcher tabulated the number of responses and determined the number identified for each of the specific characteristics listed. The researcher then calculated the percentage of the participants selecting each of the characteristics perceived as necessary to make a ninth-grade transition program successful. Question four asked the year the ninth-grade transition program was implemented to allow the researcher to retrieve data for EOC test scores, attendance, and discipline referrals before the ninth-grade transition program began. The researcher will then compare the data to the most current data available from the MODESE website. For question five, the researcher compiled the yes and no responses and calculated a percentage to determine if the respondents perceived a ninth-grade transition program as a necessity for all high schools.

Summary

The information collected for this study should be of assistance to school districts in the process of deciding which freshman transition program to utilize in their high schools. Chapter Three detailed the components of the research study including the research question and the null hypotheses. The participants included high school principals who serve in a public school district in Missouri with grades 9-12. The researcher used a purposeful sample to survey 331 Missouri public high school principals. The criteria to be included in the study included being a Missouri public institution serving grades 9-12 and implementing a ninth-grade transition program. The research setting consisted of 331 Missouri public high schools in 283 Missouri school classified as public and implementing a ninth-grade transition program. The research design was a causal-comparative study that incorporated the analysis of quantitative data

which allowed the researcher to create an in-depth analysis of the effects of and differences among ninth-grade transition programs. The researcher will utilize QuestionPro to send out a survey to collect the data for the study. The researcher utilized a researcher-designed survey for the instrument, which is discussed in detail in the Instrumentation section. The researcher will use a one-way ANOVA to compare the data to determine if there are any significant differences among the independent variables (freshman transition programs) and the dependent variables (Algebra I and English II EOC scores, attendance, and discipline referrals). In Chapter Four, the presentation of the results and data analysis of this study are detailed.

CHAPTER FOUR

ANALYSIS OF DATA

Introduction

Students who transition from middle school to high school experience a multitude of problems that can lead to stress as the students adjust to their new environment (DeLamar & Brown, 2016; Loke & Lowe, 2014). When students make a transition from one school building to another, there exists a higher probability for negative effects (Ellerbrock et al., 2015; Healy, 2014; Kieffer et al., 2014). In particular, ninth graders are classified as one of the most at-risk populations of students (Ellerbrock et al., 2015). Problems such as anxiety, depression, stress from new groupings, lower academic achievement, higher rates of discipline, and lower attendance can manifest (Laursen & Hartl, 2013; London & Ingram, 2018). Freshman transition programs have been created and implemented in high schools to help students ease into high school life (Hampton, 2013). Roybal et al. (2014) found ninth-grade transition programs, when effectively implemented, increase the number of successful students and create better-prepared graduates.

The purpose of this quantitative study was to investigate freshman transition programs in Missouri public high schools to compare the difference of success in the areas of increasing academic achievement, lowering discipline referrals, and increasing attendance. The researcher pursued which programs were utilized in Missouri high schools and then compared the programs with regard to academic achievement, discipline referrals, and attendance. The intent was to help other school districts without freshman transition programs by presenting data on which programs may work best for their school

districts. The researcher compared school districts that implemented one of three freshman transition programs: (1) Freshman Academy, (2) Mentorship programs, and (3) Summer Bridge programs. Data were collected in the following categories: academic achievement using Algebra I and English II EOC scores, discipline numbers, and attendance percentages.

In Chapter Three, the researcher detailed the methodology of the study including participants, sampling procedures, research setting, research design, procedures, instrumentation, and data treatment. The final survey results were uploaded into SPSS (IBM Statistical Package for the Social Sciences) and separate ANOVAs were run to determine if there were any statistical differences among the three freshman transition programs and their impact on academic achievement, discipline, and attendance. Data are presented in Chapter Four, along with a re-introduction of the research question and null hypotheses. Chapter Four also includes a summary of methods, data presentation, overall results, and a summary of the chapter.

Research Question

The following research question guided the study:

1. What are the differences in attendance, discipline referrals, and English II and Algebra I end-of-course test scores among the three ninth-grade transition models identified?

Null Hypotheses

H₀₁: There are no statistically significant differences in Algebra I end-of-course test scores among the three ninth-grade transition models identified in this study.

H₀₂: There are no statistically significant differences in English II end-of-course test scores among the three ninth-grade transition models identified in this study.

H₀₃: There are no statistically significant differences in attendance percentages among the three ninth-grade transition models identified in this study.

H₀₄: There are no statistically significant differences in the number of discipline referrals among the three ninth-grade transition models identified in this study.

Summary of Methods

Following approval from the Southwest Baptist University RRB Board, the investigator utilized a researcher-created survey to gather data from schools that utilized a freshman transition program. In order to qualify for participation, high schools must be located in Missouri with grades 9-12 and a freshman transition program in place. A survey was then sent to all high school principals who qualified to participate. The researcher utilized purposive sampling for all high school principals who met the criteria of having a freshman transition program. The researcher used QuestionPro survey software to administer the survey to qualifying high school principals.

Sixty-two out of 331 possible schools participated in the survey. Of the 62 who participated, only 31 had freshman transition programs. The survey was closed after three weeks. Because of the low rate of initial participation in the survey, the researcher made telephone calls to 24 individual school districts to get the information needed to complete the survey. Of the 86 total schools, only 50 schools fell into the categories required for participation. Once the data were received, it was transferred to a Microsoft Excel document to be later transferred to SPSS for analysis. Data included in the Excel file and inputted into SPSS were categorized into the following classifications: three different

freshman transition programs, test score data, discipline data, and attendance data from the MODESE website. The data from the MODESE website included 2015, 2016, and 2018 End of Course (EOC) exam scores in Algebra I and English II, discipline events, and attendance percentages. Data for the 2017 school year are not present in this study due to the MODESE deciding not to include them in the Annual Performance Report (APR). It was concluded there were year-to-year comparability issues for EOC scores for English II and Algebra I (MODESE, 2018). Comparability between different test forms was necessary in order to relate the scores on one form to scores on another (MODESE, 2018). Data for 2017 attendance and discipline were not included in this study for consistency purposes. The researcher did not want to include attendance and discipline data for a year without available academic data.

Data Analysis

The researcher first established which schools qualified to be part of the study. Qualifications included being a Missouri high school serving grades 9-12. The researcher utilized a purposive sample of Missouri high schools that met the criteria. Once the schools were established, the researcher then developed a survey and sent it via email to building principals of qualifying high schools. The email included an introduction, consent to participate information sheet, instructions, and a link to the survey, which was administered using the QuestionPro online survey tool. The survey was sent out for a total of four weeks with a reminder email sent every week.

Upon closing the survey, 86 high schools responded of the 291 high schools surveyed. Of the 86 high schools that responded, only 54 had freshman transition

programs and only 50 high schools had programs that fell into the three models described in Chapter Three (see Table 1).

Table 1

Freshman Transition Program Participation by Group

Transition Program	Districts	High Schools
Freshman Academy	12	17
Mentorship Model	18	19
Summer Bridge	7	14

All responses were transferred to SPSS for analysis. The researcher utilized a one-way analysis of variance (one-way ANOVA) to compare the data to determine if significant differences existed among the independent variables (freshman transition programs) and the corresponding dependent variables (English II and Algebra I EOC student test scores, attendance rates, and discipline referrals). The one-way ANOVA is used to determine if there is any significant difference between the means of two or more independent groups (Laerd Statistics, 2017). The results of the ANOVAs are presented in Table 3.

RQ1: What are the differences in attendance, discipline referrals, and English II and Algebra I end-of-course test scores among the three ninth-grade transition models identified?

H₀₁: There are no statistically significant differences in Algebra I end-of-course test scores among the three ninth-grade transition models identified in this study.

This section compared the results of 2015, 2016, and 2018 Algebra I EOC test results among schools that implemented one of three freshman transition programs: Freshman Academy, Mentorship model, and Summer Bridge model. A one-way ANOVA was utilized to determine if there was any significance at the $p < 0.05$ level. The results are displayed in Table 2, Table 3, Table 4, and Table 5.

Table 2

Means and Standard Deviations on the Algebra I Scores by Type of Transitional Program, by Year

Program	2015 Algebra I Score			2016 Algebra I Score			2018 Algebra I Score		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Group 1	14	64.12	16.45	15	65.98	14.62	16	46.91	15.42
Group 2	18	49.91	17.67	17	59.48	15.52	18	40.76	19.733
Group 3	14	54.72	14.17	14	62.36	12.56	12	37.87	19.14

Table 3

ANOVA Table for 2015 Algebra I Achievement Scores

Source	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Between Groups	2	1610.65	805.33	3.03	.059
Within Groups	43	11438.82	266.02		
Total	45	13049.57			

A one-way ANOVA was conducted to explore the impact of freshman transitional programs on 2015 Algebra achievement, as measured by EOC Algebra I test scores. Participants were classified into three groups: Freshman Academy ($n = 14$), Mentorship Model ($n = 18$), and Summer Bridge ($n = 14$). There were no outliers, as assessed by boxplot; data were normally distributed for each group, as assessed by the Shapiro-Wilk test ($p > .05$); and there was homogeneity of variances, as assessed by Levene's test of homogeneity of variances ($p = .785$). The EOC Algebra I scores increased from Freshman Academy ($M = 64.12$, $SD = 16.45$), to Summer Bridge ($M = 54.72$, $SD = 14.17$), to Mentorship Model ($M = 17.67$, $SD = 14.17$) freshman transition groups, in that order, but the differences among these freshman transition groups was not statistically significant, $F(2, 45) = 3.03$, $p = .059$.

The data of the ANOVA test suggested the null hypothesis H_01 (There are no statistically significant differences in 2015 Algebra I end-of-course test scores among the three ninth-grade transition models identified in this study) was not rejected.

Table 4

ANOVA Table for 2016 Algebra I Achievement Scores

Source	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Between Groups	2	337.32	168.66	.82	.449
Within Groups	43	8893.89	206.84		
Total	45	9231.21			

A one-way ANOVA was conducted to explore the impact of freshman transitional programs on 2016 Algebra achievement, as measured by EOC Algebra I test scores. Participants were classified into three groups: Freshman Academy ($n = 15$), Mentorship Model ($n = 17$), and Summer Bridge ($n = 14$). There were no outliers, as assessed by boxplot; data were normally distributed for each group, as assessed by the Shapiro-Wilk test ($p > .05$); and there was homogeneity of variances, as assessed by Levene's test of homogeneity of variances ($p = .719$). The EOC Algebra I scores increased from Freshman Academy ($M = 65.98$, $SD = 14.62$), to Summer Bridge ($M = 62.36$, $SD = 12.56$), to Mentorship Model ($M = 59.48$, $SD = 15.52$) freshman transition groups, in that order, but the differences among these freshman transition groups was not statistically significant, $F(2, 45) = .82$, $p = .449$.

The data of the ANOVA test suggested the null hypothesis H_{01} (There are no statistically significant differences in 2016 Algebra I end-of-course test scores among the three ninth-grade transition models identified in this study) was not rejected.

Table 5

ANOVA Table for 2018 Algebra I Achievement Scores

Source	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Between Groups	2	617.11	308.56	.93	.401
Within Groups	43	14218.06	330.65		
Total	45	14835.17			

A one-way ANOVA was conducted to explore the impact of freshman transitional programs on 2018 Algebra achievement, as measured by EOC Algebra I test scores. Participants were classified into three groups: Freshman Academy ($n = 16$), Mentorship Model ($n = 18$), and Summer Bridge ($n = 12$). There were no outliers, as assessed by boxplot; data were normally distributed for each group, as assessed by the Shapiro-Wilk test ($p > .05$); and there was homogeneity of variances, as assessed by Levene's test of homogeneity of variances ($p = .622$). The EOC Algebra I scores increased from Freshman Academy ($M = 46.91$, $SD = 15.42$), to Mentorship Model ($M = 40.76$, $SD = 19.73$), to Summer Bridge ($M = 37.87$, $SD = 19.14$) freshman transition groups, in that order, but the among between these freshman transition groups was not statistically significant, $F(2, 45) = .93$, $p = .401$.

The data of the ANOVA test suggested the null hypothesis H_01 (There are no statistically significant differences in 2018 Algebra I end-of-course test scores among the three ninth-grade transition models identified in this study) was not rejected.

H₀₂: There are no statistically significant differences in English II end-of-course test scores among the three ninth-grade transition models identified in this study.

This section compared the results of 2015, 2016, and 2018 English II EOC test results with schools implementing one of three freshman transition programs: Freshman Academy, Mentorship model, and Summer Bridge model. A one-way ANOVA was utilized to determine if there was any significance at the $p < 0.05$ level. The results are displayed in Table 6, Table 7, Table 8, and Table 9.

Table 6

Means and Standard Deviations on the English II Scores by Type of Transitional Program, by Year

Program	2015 English II Score			2016 English II Score			2018 English II Score		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Group 1	16	78.35	9.82	17	80.93	12.60	16	63.18	9.81
Group 2	19	71.43	16.75	19	77.80	15.46	18	57.14	16.42
Group 3	14	75.10	10.46	14	81.13	8.56	14	61.78	9.82

Table 7

ANOVA Table for 2015 English II Achievement Scores

Source	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Between groups	2	418.30	209.15	1.214	.306
Within groups	46	7923.20	172.24		
Total	48	8341.50			

A one-way ANOVA was conducted to explore the impact of freshman transitional programs on 2015 English achievement, as measured by EOC English II test scores. Participants were classified into three groups: Freshman Academy ($n = 16$), Mentorship Model ($n = 19$), and Summer Bridge ($n = 14$). There were no outliers, as assessed by boxplot; data were normally distributed for each group, as assessed by the Shapiro-Wilk test ($p > .05$); and there was homogeneity of variances, as assessed by Levene's test of homogeneity of variances ($p = .058$). The EOC English II scores increased from Freshman Academy ($M = 78.35$, $SD = 9.82$), to Summer Bridge ($M = 75.10$, $SD = 10.46$), to Mentorship Model ($M = 71.43$, $SD = 16.75$) freshman transition groups, in that order, but the differences among these freshman transition groups was not statistically significant, $F(2, 48) = 1.21$, $p = .306$.

The data of the ANOVA test suggested the null hypothesis H_02 (There are no statistically significant differences in 2015 English II end-of-course test scores among the three ninth-grade transition models identified in this study) was not rejected.

Table 8

ANOVA Table for 2016 English II Achievement Scores

Source	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Between Groups	2	122.44	61.218	0.37	.693
Within Groups	47	7794.23	165.84		
Total	49	7916.66			

A one-way ANOVA was conducted to explore the impact of freshman transitional programs on 2016 English achievement, as measured by EOC English II test scores. Participants were classified into three groups: Freshman Academy ($n = 17$), Mentorship Model ($n = 19$), and Summer Bridge ($n = 14$). There were no outliers, as assessed by boxplot; data were normally distributed for each group, as assessed by the Shapiro-Wilk test ($p > .05$); and there was homogeneity of variances, as assessed by Levene's test of homogeneity of variances ($p = .195$). The EOC English II scores increased from Summer Bridge ($M = 81.13$, $SD = 8.56$), to Freshman Academy ($M = 80.93$, $SD = 12.60$), to Mentorship Model ($M = 77.80$, $SD = 15.46$) freshman transition groups, in that order, but the differences among these freshman transition groups was not statistically significant, $F(2, 49) = .37$, $p = .693$.

The data of the ANOVA test suggested the null hypothesis H_02 (There are no statistically significant differences in 2016 English II end-of-course test scores among the three ninth-grade transition models identified in this study) was not rejected.

Table 9

ANOVA Table for 2018 English II Achievement Scores

Source	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Between Groups	2	340.72	170.36	1.05	.357
Within Groups	45	7277.80	161.73		
Total	47	7618.52			

A one-way ANOVA was conducted to explore the impact of freshman transitional programs on 2018 English achievement, as measured by EOC English II test scores. Participants were classified into three groups: Freshman Academy ($n = 16$), Mentorship Model ($n = 18$), and Summer Bridge ($n = 14$). There were no outliers, as assessed by boxplot; data were normally distributed for each group, as assessed by the Shapiro-Wilk test ($p > .05$); and there was homogeneity of variances, as assessed by Levene's test of homogeneity of variances ($p = .319$). The EOC English II scores increased from Freshman Academy ($M = 63.18$, $SD = 9.81$), to Summer Bridge ($M = 61.78$, $SD = 9.82$), to Mentorship Model ($M = 57.14$, $SD = 16.42$) freshman transition groups, in that order, but the differences among these freshman transition groups was not statistically significant, $F(2, 45) = 1.05$, $p = .357$.

The data of the ANOVA test suggested the null hypothesis H_02 (There are no statistically significant differences in 2018 English II end-of-course test scores among the three ninth-grade transition models identified in this study) was not rejected.

H₀₃: There are no statistically significant differences in attendance percentages among the three ninth-grade transition models identified in this study

This section compared the results of 2015, 2016, and 2018 attendance percentage results for schools implementing one of three freshman transition programs: Freshman Academy, Mentorship model, and Summer Bridge model. A one-way ANOVA was utilized to determine if there was any significance at the $p < 0.05$ level. The results are displayed in Table 10, Table 11, Table 12, and Table 13.

Table 10

Means and Standard Deviations on the Attendance Percentage by Type of Transitional Program, by Year

Program	2015 Attendance			2016 Attendance			2018 Attendance		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Group 1	17	73.38	15.62	17	78.91	9.39	17	74.53	14.56
Group 2	19	85.78	4.42	19	87.02	4.88	19	84.94	6.41
Group 3	14	84.95	3.42	14	86.42	3.70	14	85.16	4.46

Table 11

ANOVA Table for 2015 Attendance

Source	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Between Groups	2	1634.66	817.33	8.72	.001
Within Groups	47	4406.26	93.75		
Total	49	6040.92			

A one-way ANOVA was conducted to explore the impact of freshman transitional programs on 2015 attendance, as measured by the MODESE database. Participants were classified into three groups: Freshman Academy ($n = 17$), Mentorship Model ($n = 19$), and Summer Bridge ($n = 14$). There were outliers, as assessed by boxplot, but because the results were not materially affected and given the nature of the data, the outliers in the analysis were included. Data were not normally distributed for each group, as assessed by the Shapiro-Wilk test ($p > .05$); and there was not homogeneity of variances, as assessed by Levene's test of homogeneity of variances ($p = .000$). These results indicated there was a significant violation because $p < .05$; therefore, the equal variances not assumed were used. Because the results were not materially affected and given the nature of the data, the outliers in the analysis were included. Attendance percentages increased from Mentorship Model ($M = 85.78$, $SD = 4.42$), to Summer Bridge ($M = 84.95$, $SD = 3.42$), to Freshman Academy ($M = 73.38$, $SD = 15.62$) freshman transition groups, in that order, and the differences among these freshman transition groups were statistically significant, $F(2, 49) = 8.72$, $p = .001$.

The data of the ANOVA test suggested the null hypothesis H_03 (There are no statistically significant differences in 2015 attendance percentages among the three ninth-grade transition models identified in this study) was significant at $p = .001$; therefore, the null hypothesis was rejected.

Table 12

ANOVA Table for 2016 Attendance

Source	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Between Groups	2	695.21	347.60	8.10	.001
Within Groups	47	2016.69	42.91		
Total	49	2711.90			

A one-way ANOVA was conducted to explore the impact of freshman transitional programs on 2016 attendance, as measured by the MODESE database. Participants were classified into three groups: Freshman Academy ($n = 17$), Mentorship Model ($n = 19$), and Summer Bridge ($n = 14$). There were outliers, as assessed by boxplot, but because the results were not materially affected and given the nature of the data, the outliers in the analysis were included. Data were not normally distributed for each group, as assessed by the Shapiro-Wilk test ($p > .05$); and there was not homogeneity of variances, as assessed by Levene's test of homogeneity of variances ($p = .000$). These results indicated there was a significant violation because $p < .05$; therefore, the equal variances not assumed were used. Because the results were not materially affected and given the nature of the

data, the outliers in the analysis were included. Attendance percentages increased from Mentorship Model ($M = 87.02$, $SD = 4.88$), to Summer Bridge ($M = 86.42$, $SD = 3.70$), to Freshman Academy ($M = 78.91$, $SD = 9.39$) freshman transition groups, in that order, and the differences among these freshman transition groups were statistically significant, $F(2, 49) = 8.10$, $p = .001$.

The data of the ANOVA test suggested the null hypothesis H_03 (There are statistically significant differences in 2016 attendance percentages among the three ninth-grade transition models identified in this study) was significant at $p = .001$; therefore, the null hypothesis was rejected.

Table 13

ANOVA Table for 2018 Attendance

Source	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Between Groups	2	1238.54	619.27	6.63	.003
Within Groups	47	4390.30	93.41		
Total	49	5628.84			

A one-way ANOVA was conducted to explore the impact of freshman transitional programs on 2018 attendance, as measured by the MODESE database. Participants were classified into three groups: Freshman Academy ($n = 17$), Mentorship Model ($n = 19$), and Summer Bridge ($n = 14$). There were outliers, as assessed by boxplot, but because the results were not materially affected and given the nature of the data, the outliers in the

analysis were included. Data were not normally distributed for each group, as assessed by the Shapiro-Wilk test ($p > .05$); and there was not homogeneity of variances, as assessed by Levene's test of homogeneity of variances ($p = .000$). These results indicated there was a significant violation because $p < .05$; therefore, the equal variances not assumed were used. Because the results were not materially affected and given the nature of the data, the outliers in the analysis were included. Attendance percentages increased from Summer Bridge ($M = 85.16$, $SD = 4.46$), to Mentorship Model ($M = 84.94$, $SD = 6.41$), to Freshman Academy ($M = 74.53$, $SD = 14.56$) freshman transition groups, in that order, and the differences among these freshman transition groups were statistically significant, $F(2, 49) = 6.63$, $p = .003$.

The data of the ANOVA test suggested the null hypothesis H_03 (There are no statistically significant differences in 2018 attendance percentages among the three ninth-grade transition models identified in this study) was significant at $p = .003$; therefore, the null hypothesis was rejected.

H₀₄: There are no statistically significant differences in the number of discipline referrals among the three ninth-grade transition models identified in this study.

This section compared the results of 2015, 2016, and 2018 discipline event results for schools implementing one of three freshman transition programs: Freshman Academy, Mentorship model, and Summer Bridge model. A one-way ANOVA was utilized to determine if there was any significance at the $p < 0.05$ level. The results are displayed in Table 14, Table 15, Table 16, and Table 17.

Table 14

*Means and Standard Deviations on the Discipline Events by Type of Transitional**Program, by Year*

Program	2015 Discipline			2016 Discipline			2018 Discipline		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Group 1	17	72.83	53.03	17	61.65	45.74	17	58.88	45.28
Group 2	19	21.37	18.61	19	19.26	17.66	19	26.42	22.88
Group 3	14	26.86	13.94	14	22.29	10.41	14	27.43	19.39

Table 15

ANOVA Table for 2015 Discipline Events

Source	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Between Groups	2	27321.40	13660.70	11.94	.000
Within Groups	47	53758.61	1143.80		
Total	49	81080.00			

A one-way ANOVA was conducted to explore the impact of freshman transitional programs on 2015 discipline events, as measured by the MODESE database. Participants were classified into three groups: Freshman Academy ($n = 17$), Mentorship Model ($n = 19$), and Summer Bridge ($n = 14$). There were outliers, as assessed by boxplot, but because the results were not materially affected and given the nature of the data, the outliers in the analysis were included. Data were not normally distributed for each group,

as assessed by the Shapiro-Wilk test ($p > .05$); and there was not homogeneity of variances, as assessed by Levene's test of homogeneity of variances ($p = .000$). These results indicated there was a significant violation because $p < .05$; therefore, the equal variances not assumed were used. Because the results were not materially affected and given the nature of the data, the outliers in the analysis were included. Discipline events increased from Freshman Academy ($M = 72.83, SD = 53.03$), to Summer Bridge ($M = 26.86, SD = 13.94$), to Mentorship Model ($M = 21.37, SD = 18.61$) freshman transition groups, in that order, and the differences among these freshman transition groups were statistically significant, $F(2, 49) = 11.94, p = .000$.

The data of the ANOVA test suggested the null hypothesis H_04 (There are no statistically significant differences in 2015 discipline events among the three ninth-grade transition models identified in this study) was significant at $p = .000$; therefore, the null hypothesis was rejected.

Table 16

ANOVA Table for 2016 Discipline Events

Source	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Between Groups	2	19028.06	9514.03	11.04	.000
Within Groups	47	40496.42	861.63		
Total	49	59524.48			

A one-way ANOVA was conducted to explore the impact of freshman transitional programs on 2016 discipline events, as measured by the MODESE database. Participants were classified into three groups: Freshman Academy ($n = 17$), Mentorship Model ($n = 19$), and Summer Bridge ($n = 14$). There were outliers, as assessed by boxplot, but because the results were not materially affected and given the nature of the data, the outliers in the analysis were included. Data were not normally distributed for each group, as assessed by the Shapiro-Wilk test ($p > .05$); and there was not homogeneity of variances, as assessed by Levene's test of homogeneity of variances ($p = .000$). These results indicated there was a significant violation because $p < .05$; therefore, the equal variances not assumed were used. Because the results were not materially affected and given the nature of the data, the outliers in the analysis were included. Discipline events increased from Freshman Academy ($M = 61.65$, $SD = 45.74$), to Summer Bridge ($M = 22.29$, $SD = 10.41$), to Mentorship Model ($M = 19.26$, $SD = 17.66$) freshman transition groups, in that order, and the differences among these freshman transition groups were statistically significant, $F(2, 49) = 11.04$, $p = .000$.

The data of the ANOVA test suggested the null hypothesis H_0 (There are no statistically significant differences in 2016 discipline events among the three ninth-grade transition models identified in this study) was significant at $p = .000$; therefore, the null hypothesis was rejected.

Table 17

ANOVA Table for 2018 Discipline Events

Source	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Between Groups	2	11521.80	5760.90	5.75	.006
Within Groups	47	47111.83	1002.38		
Total	49	58633.62			

A one-way ANOVA was conducted to explore the impact of freshman transitional programs on 2018 discipline events, as measured by the MODESE database. Participants were classified into three groups: Freshman Academy ($n = 17$), Mentorship Model ($n = 19$), and Summer Bridge ($n = 14$). There were outliers, as assessed by boxplot, but because the results were not materially affected and given the nature of the data, the outliers in the analysis were included. Data were not normally distributed for each group, as assessed by the Shapiro-Wilk test ($p > .05$); and there was not homogeneity of variances, as assessed by Levene's test of homogeneity of variances ($p = .012$). These results indicated there was a significant violation because $p < .05$; therefore, the equal variances not assumed were used. Because the results were not materially affected and given the nature of the data, the outliers in the analysis were included. Discipline events increased from Freshman Academy ($M = 58.88$, $SD = 45.28$), to Mentorship Model ($M = 26.42$, $SD = 22.88$), to Summer Bridge ($M = 27.43$, $SD = 19.39$) freshman transition groups, in that order, and the differences among these freshman transition groups were statistically significant, $F(2, 49) = 5.75$, $p = .006$.

The data of the ANOVA test suggested the null hypothesis H_04 (There are no statistically significant differences in 2018 discipline events among the three ninth-grade transition models identified in this study) was significant at $p = .006$; therefore, the null hypothesis was rejected.

Overall Results

This study included 331 high schools of which only 62 participated in the survey. Of the 62 high schools, only 31 had freshman transition programs. The researcher made an additional 24 phone calls to get the number of responses to fill each group of freshman transition programs: 1) Freshman Academy, 2) Mentorship Model, and 3) Summer Bridge, in order to determine if there was a significant difference between Algebra I EOC exam scores, English II EOC exam scores, discipline events, and attendance percentages. The researcher recognized the response rate was low, but the findings of this study still provided valuable insight into the utilization of freshman transition programs in Missouri high schools.

This study revealed no significance statistical difference in the area of English II and Algebra I, therefore supporting H_01 : There are no statistically significant differences in Algebra I end-of-course test scores among the three ninth-grade transition models identified in this study, and H_02 : There are no statistically significant differences in English II end-of-course test scores among the three ninth-grade transition models identified in this study. The study did reveal statistical significance in attendance percentages and discipline events, therefore rejecting H_03 : There are no statistically significant differences in attendance percentages among the three ninth-grade transition models identified in this study, and H_04 : There are no statistically significant differences

in the number of discipline referrals among the three ninth-grade transition models identified in this study.

Chapter Four contained the summary of methods, survey results, data analysis, and the overall results of the study. The results were presented in context of the guiding research question and the null hypotheses. Chapter Five presents the conclusions, recommendations for future research, and professional implications.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

Introduction

The freshman year of high school is a pivotal and trying year for students entering high school for the first time (Allen, 2011; Healy, 2014; Kieffer et al., 2014). Students are faced with a number of new and difficult life changes that impact their four years in high school (Healy, 2014). Research indicates students who do not do well during their freshman year will be a higher risk of dropping out of high school (Alexander et al., 2001; Marrs et al., 2007; McKee & Caldarella, 2016; Snipes, 2015). Bandura (1986) explained outside influences such as peers, parents, and teachers can have an effect on a student's individual learning. Bandura (1986) also suggested individuals are able to self-regulate their behavior if they do not have outside influences affecting them, but without direction and guidance, students may develop bad habits which could affect their view of right and wrong. These students could become socially isolated, which can lead to depressive symptoms, lower self-esteem, sadness, and anxiety (London & Ingram, 2018).

Some high schools across Missouri have implemented freshman transition programs in an attempt to ease the transition from middle school to high school (Healy, 2014). These programs include many different characteristics to help incoming freshmen become productive high school students (Healy, 2014). According to Bandura (1986), reciprocal determination is the process of people being a product of their environment. The intention of a ninth-grade transition program is to guide freshman students to a successful career at the high school by providing them with a positive environment and positive experiences through programs designed to help them be better students (Saechao,

2014). The purpose of this quantitative study was to compare different models of freshman transition programs in Missouri public high schools to compare the mean differences of each model's success at increasing academic achievement, lowering discipline referrals, and increasing attendance. These programs include Freshman Academies, Mentorship models and Summer Bridge programs. The researcher pursued which programs are utilized in Missouri high schools and then compared the programs for differences in terms of increasing academic achievement, lowering discipline referrals, and increasing attendance.

Chapter Five presents the answer to the research question and conclusions based on the results of the ANOVA testing of the four null hypotheses. Included in Chapter Five are discussion, conclusions, professional implications, recommendations, and a summary. The discussion section connects the study to the research of others and elucidates the contribution of this study to the topic of student transition needs and programs designed to meet those needs. The conclusions section details development through analysis of the researcher's findings and interpretation of those findings viewed along with the research reviewed in Chapter Two. The professional implications section provides the effects of the study for educators and how the findings may be utilized in the field of education. Recommendations and a summary are the last two sections. Recommendations are actions educators may want to take based upon the study and include suggestions for administrators to consider when deciding to implement a freshman transition program. The summary presents an overall summation of the study.

Research Question

The researcher reviewed related research and found research on the components and the rationale for the implementation of freshmen transition programs, but did not find research comparing the success of specific freshmen transition program models. The researcher determined school administrators need information about the success of freshmen transition program models in addressing issues such as academics, attendance, and discipline.

To provide the data to answer the research question, the researcher considered four null hypotheses. Based on the results of the ANOVAs conducted, the researcher concluded no significant differences were indicated among the models for English II and Algebra I end-of-course test scores. In terms of attendance percentage and discipline events, the researcher concluded there was significance among freshman transition models, although the researcher could not determine among which models.

Null Hypotheses

H₀₁: There are no statistically significant differences in Algebra I end-of-course test scores among the three ninth-grade transition models identified in this study.

ANOVAs were run using SPSS. Table 3 in Chapter Four contains the results for the Algebra I ANOVA for the three models for 2015; Table 4 contains the results for the Algebra I ANOVA for the three models for 2016; and Table 5 contains the results for the Algebra I ANOVA for the three models for 2018. Each model indicated an increase in test scores, but the ANOVA results indicated no significant difference among the models and *H₀₁* was not rejected because $p > .05$.

H₀₂: There are no statistically significant differences in English II end-of-course test scores among the three ninth-grade transition models identified in this study.

ANOVAs were run using SPSS. Table 7 in Chapter Four contains the results for the English II ANOVA for the three models for 2015; Table 8 contains the results for the English II ANOVA for the three models for 2016; and Table 9 contains the results for the English II ANOVA for the three models for 2018. Each model indicated an increase in test scores, but the ANOVA results indicated no significant difference among the models and *H₀₂* was not rejected because $p > .05$.

H₀₃: There are no statistically significant differences in attendance percentages among the three ninth-grade transition models identified in this study. ANOVAs were run using SPSS. Table 11 in Chapter Four contains the results for the attendance percentage ANOVA for the three models for 2015; Table 12 contains the results for the attendance percentage ANOVA for the three models for 2016; and Table 13 contains the results for the attendance percentage ANOVA for the three models for 2018. Each model indicated an increase in attendance percentage, and the ANOVA results indicated a significant difference among the models. *H₀₃* was rejected because $p < .05$, though the researcher could not determine among which models the differences occurred.

H₀₄: There are no statistically significant differences in the number of discipline referrals among the three ninth-grade transition models identified in this study. ANOVAs were run using SPSS. Table 15 in Chapter Four contains the results for the discipline events ANOVA for the three models for 2015; Table 16 contains the results for the discipline events ANOVA for the three models for 2016; and Table 17 contains the results for the discipline events ANOVA for the three models for 2018. Each model

indicated a decrease in discipline events, and the ANOVA results indicated a significant difference among the models. H_0A was rejected because $p < .05$, though the researcher could not determine among which models the differences occurred.

Discussion

The purpose of this quantitative study was to compare different models of freshman transition programs in Missouri public high schools by comparing the mean differences of each model's success at increasing academic achievement, lowering discipline referrals, and increasing attendance. These programs included Freshman Academies, Mentorship models, and Summer Bridge programs. The results of this study indicated there is a positive effect for schools that utilize freshman transition programs with increased attendance and decreased discipline; there was not a statistically significant finding in academic achievement. The intention of freshman transition programs is to ease students into high school emotionally and to ensure a seamless transition from middle school to high school academically (Roybal et al., 2014; Saechao, 2014). Students who enter high school for the first time find themselves overwhelmed and in some circumstances under-resourced. Laursen and Hartl (2013) found students entering high school for the first time may view the high school as a very large and daunting environment filled with experiences they have yet to see.

According to Suldo and Shaunessy-Dedrick (2013), the transition to high school can make students experience a decreased sense of life satisfaction and an increase in externalized behaviors. These freshman students encounter obstacles that make them not want to come to school and may lead them to make poor choices (Bowers et al., 2013). Barone et al. (1991), Loke and Lowe (2014), and Goodwin et al. (2012) suggested if

students enter high school with anxiety, they may begin to have lower attendance, higher rates of behavior problems, or they may simply shut down and not want to participate or come to school at all.

All of the different freshman transition programs – Freshman Academies, Mentorship models, and Summer Bridge programs – incorporate a social aspect. For Freshman Academies, this could mean teaming (Snipes, 2015); for Mentorship models, this could mean working with positive upperclassman who serve as role models (Karcher & DuBois, 2014); and for Summer Bridge programs, students are introduced to high school early and often with the help of mentors much like the Mentorship model (Roderick et al., 2003). Studies show that if students are socially active in school and have positive role models, they will come to school and have a sense of belonging (Gremmen et al., 2017). Bandura (1986) stated reciprocal determination is the process of people being a product of their environment. Bandura (1986) indicated individuals are able to self-regulate their behavior if they do not have outside influences affecting them; without direction and guidance, the students may develop bad habits which could affect their view of right and wrong. Gremmen et al. (2017) suggested if an adolescent bonds with a peer who excels in academics, the chances of the adolescent mimicking traits of that student is high, and the adolescent could possibly excel in academics.

Many of the programs involve students becoming involved in the high school before entering high school for the first time. According to Cushman (2006) and Hauser et al. (2009), students like to be involved in the high school before they attend there. Students enjoy school visits to the high school or having student speakers come and talk about the high school experience. Some school districts offer incoming ninth graders

programs at the beginning of school that allow staff and students to meet before school begins. It also gives students the chance to see the school before the rest of the student body returns. Some schools go through a full school day with just freshmen in attendance. This gives the freshmen the opportunity to go to all of their classes and visit with teachers and classmates (Cushman, 2006; Hauser et al., 2009).

Freshman students are considered some of the most at-risk students due to the transition process. McKee and Caldarella (2016) found many of these students may have given up on school before they ever arrive at the front door. Freshman transition programs are designed to lower the numbers of students who would be at-risk. Maltais et al. (2017) reported there are significant changes in students both psychologically and academically during transition. The programs tie directly into the theoretical framework of Bandura (1986) and his research on social cognitive theory and self-efficacy. Bandura (1986) explained people experience a reevaluation of their competencies when they are faced with tasks involving a high level of uncertainty, such as transitioning to an entirely new school. These students may develop less confidence and higher anxiety when they enter a new school for the first time.

Bandura (1986) explained self-efficacy is based on the personal interpretation of one's competencies based on past experiences. Students with a high perception of their efficacy demonstrate greater self-confidence and actualization (Bandura, 1986). Students with high self-efficacy accomplish more and have greater self-fulfillment in the tasks they complete (Bouffard et al., 2001), whereas students with low self-sufficiency avoid doing hard work, give up easily, and avoid anything perceived to be a threat to self (Usta,

2017). Without the supports freshman transition programs can provide, students could become at-risk of dropping out as early as the ninth grade.

Some research indicated that in freshman academies specifically, the academies could create another transition for the student. Alspaugh (1998) and Bottoms (2008) asserted this separation can be problem, because it does create another transition students have to endure before they get to high school as upperclassmen, in some cases making it worse for the freshmen. In some cases, mentors may lead freshman students into making poor choices or may leave them after a certain period of time. This could cause a relapse in a freshman student's distress about being in high school.

Limitations of this study included the return rate of the study, the honesty of the principals who returned the survey, motivations of students who took the EOC exam, differences in students ability to perform on EOC exams, EOC exams already administered prior to the study, districts individually controlling the administration of the EOC exams, only high schools with freshman transition programs being included in the study, and only three well-established freshman transition programs being included in the study. The findings could be transferred to a broader population to examine the entire country and not just Missouri.

Conclusions

Schools that implement freshman transition programs may provide positive transitions for incoming high school freshman students. This study has shown that freshman transition programs can have a positive impact on student attendance and discipline. The researcher began this study understanding that freshman transition programs can have an impact on students transitioning from middle school to high

school. The review of literature provided the researcher a broad understanding of what impacts, physically and mentally, transitioning from middle school to high school can have on students. The review of literature also provided the researcher with valuable information on what freshman transition programs can do for schools that provide them for their students (Saechao, 2014).

The researcher's study revealed freshman transition programs can have an impact of attendance and discipline. The results of the study tied back to the theoretical framework of Albert Bandura's (1986) social cognitive theory and self-efficacy. The review of literature provided the researcher with the understanding that in order for students to be successful in school, they must have strong self-efficacy. Many freshman transition programs provide students with supports that will help them maintain strong self-efficacy. Bandura (2001) stated a student's confidence or self-efficacy in his or her own ability is directly related to the ability to be successful both socially and academically. This ties into the findings that there was significance in attendance and discipline but not academic achievement.

The purpose of this study was to investigate freshman transition programs and their impact on achievement, attendance, and discipline. The results of this study indicated schools implementing transition programs were having positive results in increasing attendance and decreasing discipline events. This aligns with the review of literature that the intention of ninth-grade transition programs is to guide freshman students to a successful career in high school by providing them with positive experiences through different programs that will help them become better students (Saechao, 2014).

Professional Implications

The purpose of this study was to investigate freshman transition programs and their impact on achievement, attendance, and discipline. The researcher's study did not find a significant difference among freshman transition programs in the area of academic achievement. However, the findings indicated freshman transition programs had a positive impact on attendance and discipline.

The researcher's findings provide some assurance for school leaders, teachers, and school boards who have implemented or are considering implementation of a freshman transition program that the programs can help increase attendance and reduce discipline events. For school leaders and teachers, the benefit may be that students attend school more. Students with less discipline will also be in class more and not in the principal's office or suspended from school. From the instructional side, students in class more often to receive instruction are less likely to fall behind academically, which is good for all involved – principals, teachers, and most importantly, the students.

The researcher's study was limited by the number of responses, but the findings add to the knowledge base educators use to improve instructional practice, school organization, and student support services in an effort to help as many students as possible reach their full potential. School efforts, knowingly or unknowingly, are attached to Albert Bandura (1986) and his social cognitive theory, including expectations, self-efficacy, goal setting, and social connection.

Recommendations for Future Research

As high schools across the state are looking for new and innovative ways to transition students from middle school to high school seamlessly, many different

freshman transition programs have been developed and implemented. Administrators in these schools need to understand there are many options for freshman transition programs. This study compared only three of the options administrators may consider. The findings discussed in this study are a start in the research for the most effective freshman transition program for helping students transition to high school successfully.

Topics for future research could include the following: (1) a study designed to collect details of the components of each freshman transition program and operational processes developed for implementation; (2) a study of high schools with similar demographics (e.g., size of the student population, socio-economic status of the area, ethnic makeup of student population) to allow for a more accurate comparison of different high schools; (3) a study of more freshman transition programs high schools are using beyond the three compared in this study; (4) a study tracking the attendance, discipline, and academic records of eighth-grade classes (not individuals) from eighth grade through high school graduation including dropout information; (5) a qualitative study of teacher, administrator, and parent perceptions of ninth-grade transition programs; or (6) a study of the financial cost of freshman transition programs versus the financial benefit for the school district and community to have more students stay in school and be better prepared for employment.

Summary

The purpose of this quantitative study was to investigate freshman transition programs in Missouri public high schools to compare the difference of success in the areas of increasing academic achievement, lowering discipline referrals, and increasing attendance. The topic for research was selected because as the researcher reviewed the

related literature, and most of the research was about the components and needs of a successful freshman transition program. The comparison of models of freshman transition programs was pursued to address a gap in the literature. The researcher compared freshman transition programs utilized in Missouri high schools in the areas of academic achievement, discipline referrals, and attendance. The intent was to help other school districts that have not implemented freshman transition programs with a researched evaluation of the programs already implemented in Missouri to determine which program may work best for their school districts.

The researcher conducted this study by developing a survey and administering it to a purposive sample of high schools classified as enrolling ninth grade through twelfth grade. The results of this study indicated freshman transition programs have a significant positive effect on attendance rates and discipline events. The results also indicated freshman transition programs had no significant effect on Algebra I and English II EOC exam scores. The study may not have entirely filled the research gap, but it has added new information for others to peruse in the future.

This research was guided by Bandura's (1986) social cognitive theory and self-efficacy as it applies to the different transition models. Bandura's (1986) theory indicated students transitioning from one environment to another, such as from middle school to high school, experience a change in their self-efficacy. These students, according to Bandura (1986), experience a reevaluation of their competencies when faced with tasks involving a high level of uncertainty, such as transitioning to an entirely new school. This is where freshman transition programs can have an impact on students entering high school for the first time. Freshman transition programs incorporate many life skills and

socialization skills to get the incoming freshmen off to positive start. These programs are positive and supportive to help the student build confidence before and after they enter high school. Bandura (2001) revealed a link between social activities of students in school and their attendance, discipline, self-efficacy, and academic success.

The results of this quantitative study led the researcher to conclude schools with freshman transition programs are successful at improving attendance and lowering discipline events. The findings in others research indicated that through the proper utilization of freshman transition programs, students will feel more confident and supported when they enter high school for the first time (Alexander, 2015; Lawner et al., 2013). The success of students in ninth grade can determine if they will graduate from high school (Allen, 2011; Blackwell, 2008). In this study, the researcher provided important information for school districts to take into account when they are looking at establishing freshman transition programs to help students make the transition to high school more successful.

The researcher is a school administrator who understands the importance of freshman transition programs and their impact on students transitioning from middle school to high school. The researcher also understands the emotional stress and anxiety that can overwhelm students who are making that transition. The research was driven by the researcher's desire to see how freshman transition programs impact students and which programs work best for high schools. It is the hope of the researcher that educators and administrators will explore the possibility of providing freshman transition programs in their schools to improve the success of students. Though no statistical significance was found in terms of academic success, all three freshman transition programs increased

EOC scores for English II and Algebra I, though more research is needed. The researcher understands the importance of freshman transition programs and believes they deserve consideration for implementation in all high schools.

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