Waiting to Fail:

A Comparative Study of Effective School Configurations for At-Risk Sixth Grade Students

A Dissertation

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AUTHORIZATION TO SUBMIT DISSERTATION

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Dedication

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Abstract

The purpose of this comparative study was to examine the relationship between student achievement and social-emotional well-being in three different school configurations for at-risk sixth grade students. This study sought to apply the stage-environment fit theory to investigate the effect of mismatched school environments on young adolescents when developmental changes occur. The mixed methods research measured academic and behavioral success and school connectedness using surveys and focus group interviews. The sample was made of 109 sixth grade students who qualified as at-risk in three northwest states. Results indicated alternative schools deliver supports that meet the academic and developmental needs of young adolescents by providing personalized and structured learning in a smaller environment. In addition, elementary schools were also found to have positive effects on academics through their use of effective teaching methodologies due to structured lessons and small ability groups.

A student's sense of connectedness was paramount in the findings of meeting the social-emotional needs of this marginalized population. Quantitative and qualitative results supported the elementary and alternative schools' ability to provide students with a culture of care and support afforded through active engagement and personalized connections. Alternative students were found to have deeper conversations and stronger connections to their teachers resulting in statistically significant results according to teacher relationships from the survey and focus interviews. Alternative schools found a decrease in discipline and absenteeism as compared to at-risk students in elementary and middle schools. The behavioral results from the alternative configuration found the implementation of a sound positive behavioral intervention program was the factor that separated the alternative school program from the elementary and middle school configurations.

In light of prior findings of school configurations in relation to student success, this study supports small communities with smaller populations, lower teacher to student ratios, caring teachers who build relationships, and individualized multisensory teaching practices. These pedagogies increased student achievement and sense of connectedness to meet young adolescents' developmental needs could reduce this vulnerable population's disposition of dropping out of school.

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Chapter I

Introduction

Upon entering sixth grade, students are placed in varying institutional arrangements, often with seven periods and just as many teachers. This differs greatly from their previously self-contained elementary environment, in which they had a single teacher for all subjects. The transition to a middle school was developed to prepare students for college and to provide fiscal relief to districts by combining resources to relieve some of the pressure on overcrowded elementary schools (Alspaugh, 1998; Franklin & Glascock, 1996; Gootman, 2007). The middle school concept, bridging students from elementary to high school, has long been a topic of controversy. Recent studies have shown negative impacts on academics, behavior, and school connectedness due to the middle school model not being implemented as intended with teacher teams and cross-curricular collaboration (Dhuey, 2013; Franklin & Glascock, 1996; Rockoff & Lockwood, 2010; West & Schwerdt, 2012). Some middle schools have reverted to junior high schools, with departmentalization, short class periods, ability grouping, minimal cross-curriculum planning, and teacher-centered instruction (Cuban, 2013). Research has been inconclusive regarding the best grade configurations for sixth grade students; there appears to be a conundrum between placements in elementary or secondary institutions for these young adolescents (Dhuey, 2013; Dove & Pearson, 2010; Franklin & Glascock, 1996; Schmitt, 2004).

Student populations with at-risk factors (e.g., failing grades, increased absenteeism, substance abuse, retention, social-emotional needs, and behavioral problems) and high school dropout rates have been increasing at a disconcerting rate of one-third of the population (Alspaugh, 1998; Barton, 2005). According to recent data, socially and economically

disadvantaged minority students are more likely to be identified as having at-risk factors and to drop out of school (Balfanz, Herzog, & Mac Iver, 2007). A majority of states in the U.S. have used these identifying factors to provide early interventions in potential dropout cases in order to decrease the trajectory to failure (Lehr, Lanners, & Lange, 2003).

Moreover, alternative education has been restricted to secondary education for students who have been identified as having dropout indicators, mainly to reduce dropout rates at the high school level through interventions to allow students to gain credits necessary for meeting graduation requirements (Quinn, Poirier, Faller, Gable & Tonelson, 2006; Washington, 2008). Ninety percent of the alternative schools in the U.S. are high schools (Barton, 2005). Alternative schools create credit recovery and vocational programs to increase graduation rates and provide a marketable workforce (Taite, 1990; Tyler & Lofstrom, 2009). Alternative programs have been defined by each state, with varying characteristics, such as, target population, setting, program, and school configuration (Porowski, O'Conner, & Luo, 2014; Quinn et al., 2006). All 50 states have adopted legislation and policies regarding requirements and funding for students identified as having risk factors who are in alternative programs (Barton, 2005), and each state's education board has unique fiscal and identification criteria that govern how alternative programs are implemented and supported. The Idaho Legislature was presented with House Bill 300, which funded sixth grade at-risk students equally to the secondary alternative program's funding (Idaho House of Representatives, 2015; Idaho State Department of Education [ISDE], 2014). This law and laws in other states, including Texas which enacted legislation to fund at-risk students with House Bill 2519, have extended services to sixth grade students, who, prior to legislation, did not have additional fiscal supports (Colorado Department of Education [CDE], 2016; Indiana Department of Education [IDE], 2016; Texas House of Representatives [THR], 2017). Sixth

grade at-risk students in these states are now approved for placement in an alternative educational environment, rather than being subject to general population schools, without the developmentally appropriate supports that meet individualized student needs (Rockoff & Lockwood, 2010; West & Schwerdt, 2012). Table 1 summarizes the requirements for at-risk student identification in six western states in the United States.

Table 1

At-Risk Criteria of Six Western States.

Qualifier	California	Idaho	Nevada	Oregon	Washington	Wyoming
At-risk of dropping out		X	X			
Attendance and/or Truancy	X	X		X		X
Behavior Problems					X	X
Court referral		X				
Credit deficient	X			X		X
Discipline placement		X		X		X
Emancipated youth		X				
Exempt from compulsory attendance				X		
Failing more than one class		X			X	
Family situations						X
Low GPA	X	X				
Low motivation	X					
Noncompliant						X
Not met district or state assessment standards				X		
Pregnant or parent		X				
Repeated or older than other students		X				X
SED or Homeless	X					
Social/Emotional		X				X
Substance Abuse (past or present)		X			X	

Note. Adapted from: California Department of Education [CDE], 2014; Department of Education Nevada [DOENV], 2014; ISDE, 2014; Office of Superintendent of Pulic Instruction, State of Washington [OSPI], 2006; Oregon Department of Education [ODE], 2014; Wyoming Department of Education [WDE], 2014.

Identifying students as at-risk has been significantly different in each state, from generalizations of at risk of dropping out to meeting three specific indicators, such as, attendance, failing more than one class, and low GPA (DOENV, 2014; ISDE, 2014). The most common identifying factors of at-risk secondary students who are considered older than their peers, who have failing grades or attendance issues, or who are not socially connected to their school or peers (Balfanz et al., 2007; Freeman et al., 2015; Taite, 1990). National data shows that dropout rates have decreased over the past forty years for students with the risk factors of being a minority or having low socioeconomic status; but a continued, substantial difference between non-risk factor students and students who possess one of these risk factors continues to increase (Stark & Noel, 2015). At-risk students with minority and poverty status were 75% more likely to drop out of high school (Barton, 2005; Finn & Rock, 1997; Freeman et al., 2015; Stark & Noel, 2015). Figure 1 represents a comparison of U.S. students during the past five years who have been identified as having risk factors in comparison to students who are not identified as having qualifiers (Bowers, Sprott, & Taff, 2013). This comparison represents 60% of identified at-risk students who will potentially dropout.

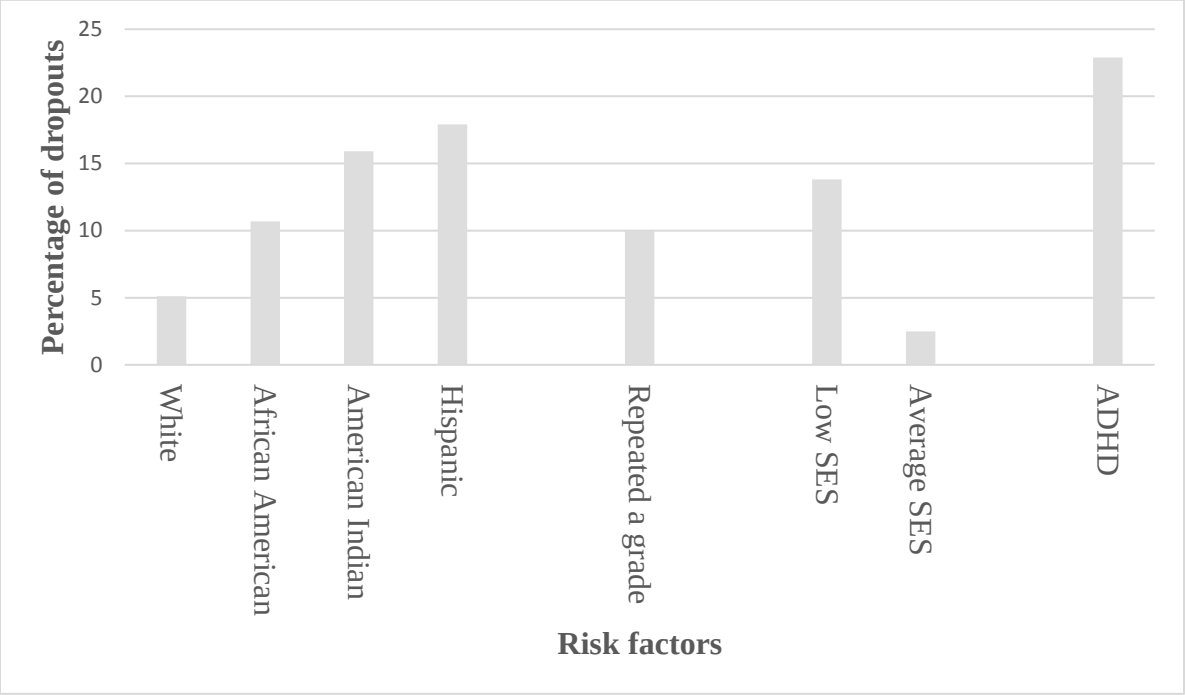

Figure 1. Comparison of dropout rates of students with risk factors and non-risk factor students. *Adapted from:* Bowers et al., 2013

Research has proven that intervention, as early as third grade, is essential to reducing students dropping out of school (Druian & Butler, 1987). Low grades, below average achievement, having been retained, older than their peers, or having a low sense of school connectedness are the key indicators for identifying students who have a high disposition to dropping out (Barton, 2005; Mendez & Knoff, 2003). *One-Third of a Nation*, a national report in response to elevated dropout rates, increased the public's awareness of the United States' ominous need to address causes, which included truancy, physical abuse, substance use or possession, homelessness, suspension, or academic failure (Barton, 2005). The cohesion of the research to target essential indicators has led to the next steps to addressing the educational environments and supports to prevent students from dropping out of school.

Background

School models have been shifting since the beginning of the industrial age with the introduction of junior highs in 1909 (Webb, 2006). Junior highs were designed to better prepare students for the job market, prevent students from dropping out of school, and better meet the needs of seventh and eighth grade students (Clark & Clark, 1993; Cuban, 1992; Schaefer, Malu, & Yoon, 2016). In the early 1960's, a shift was made to be more sensitive to the developmental needs of early adolescents, which introduced the middle school concept (Clark & Clark, 1993; National Middle School Association [NMSA], 2010; Schaefer et al., 2016). Alternative schools emerged in the second half of the twentieth century to provide an option to students who were failing school (Quinn et al., 2006). Alternative education became more common place beginning in the 1990's, with the insurgence of charter and magnet schools which catered to individual needs and interests of students (Finn, Chester, Manno, & Vanourek, 2001). At-risk students became identified through state-adopted criteria, which qualified individuals to receive alternative placements proffering smaller class sizes, individualized instruction, flexibility in structure, student-focused learning, and an emphasis on a supportive environment (Davis & Dupper, 2004; Lange & Sletten, 2002).

States in the northwestern U.S. have seen a steady increase in the amount of at-risk students attending alternative schools (Barton, 2005; ISDE, 2014; ODE, 2014). As of 2007, there were over 646,500 students being served in alternative schools (Lange & Sletten, 2002; Porowski et al., 2014). With the increase of at-risk students due to the rise in single-parent families, low socio-economic status, and multiple school transitions, there has been an increase in the number of alternative schools (Barton, 2005). During the 1997-1998 school year, there

were 3,850 alternative schools in the nation; by 2000-2001, the number of schools increased to 10,900 (Barton, 2005).

In Idaho, at-risk students have been able to receive an alternative education if they reside in a district with one of the 61 alternative schools in the state (ISDE, 2014). Currently, there are 233 seventh grade students, and 329 eighth grade students being educated in alternative schools in Idaho. With the advent of Idaho's legislative action recognizing the needs of sixth grade students in alternative schools, fiscal support has been granted to fund the programs. This act recently changed the alternative configuration from seventh and eighth grades, to sixth through eighth grades, mimicking the middle school configuration used in the majority of school districts in Idaho and the nation (ISDE, 2014; West & Schwerdt, 2012). Other states have varying configurations to meet their populations of students whose needs are not being successfully met in traditional schools. In Oregon, there are 32 public alternative schools serving 5,000 students, which vary in configurations from kindergarten through twelfth grades to sixth through twelfth grades (ODE, 2014). Twenty-two states in the nation provide alternative education programs to middle school students (Porowski et al., 2014).

Statement of the Problem

Since the introduction of the middle school concept in the 1970's, the development and social support of sixth grade students during their transition has been ignored or poorly implemented through inadequate reform measures (Cook, MacCoun, Muschkin, & Viddor, 2007; Cuban, 2013). These young adolescents are forced into mini-high schools without the social, emotional, and academic supports they received as fifth grade students in elementary schools. Furthermore, they are left without the developmentally appropriate services needed unless they have failed or have been referred for special education academic or behavioral interventions

(Hecker, Young, & Caldarella, 2014). Policy makers have pursued alternative programs to meet the diverse needs of unsuccessful students and to prevent potential dropouts (Barton, 2005; Finn & Rock, 1997). Mann, Smith, and Kristjansson (2014) along with other researchers found prolific research regarding constructs to meet student needs, but deficient research in the most beneficial school configuration for students who are not successful in traditional schools (Molloy, Gest, & Rulison, 2010; Wooley & Bowen, 2007).

Traditional kindergarten through sixth grade elementary schools nurture students in self-contained classroom models which support the developmental needs of ten- and eleven-year-olds (Hecker et al., 2014). Elementary students are in traditional classrooms with the same peers and teacher throughout the day. With the transition of the sixth-grade students from elementary to middle schools, there has been a rise of student failures and an absence of supports until they reach the grade level for which their state has ratified alternative education programs (Rockoff & Lockwood, 2010; West & Schwerdt, 2012). Moreover, the consequence of students not meeting grade level expectations could result in retention, which confirms national statistic that at-risk students are five times more likely to drop out of school if retained (National Center for Education Statistics, 2006).

The research has been inconclusive as to which is the most problematic for sixth grade student the transition to middle school or the environment itself (Coladarci & Hancock, 2002; Hough, 2004). Previous studies have found that transitions inhibited lack of academic transference to the next school setting (Booth & Gerard, 2014; Schwerdt & West, 2012). During transitions, students lost academic momentum and frequently never recouped for the loss of learning during their schooling career. Researchers Coladarci and Hancock (2002) and West and Schwerdt (2012), found there was a significant drop in student test scores when moving to a

middle school from an elementary setting and test scores continued to decline during their middle school years. Additional studies found the act of transitioning from one school to another could also influence academics negatively, but not merely by just the act of attending the new school configuration (Alspaugh, 1998; Byrnes & Ruby, 2007; Dhuey, 2013). In contrast, other studies' results showed that grade configuration alone did not account for the academic success of sixth grade students, but their sense of connectedness to school and peers was the decisive factor for continual success (Dove & Pearson, 2010; Ward, Gresham, & Wantz-Sutton, 2007; Weiss & Kipnes, 2006). Further research indicated the transition to middle school aided in increased academics of sixth grade students (The National Forum to Accelerate Middle-Grades Reform, 2008). Figure 2 represents the school configurations most prevalent in the public education system for sixth grade students.

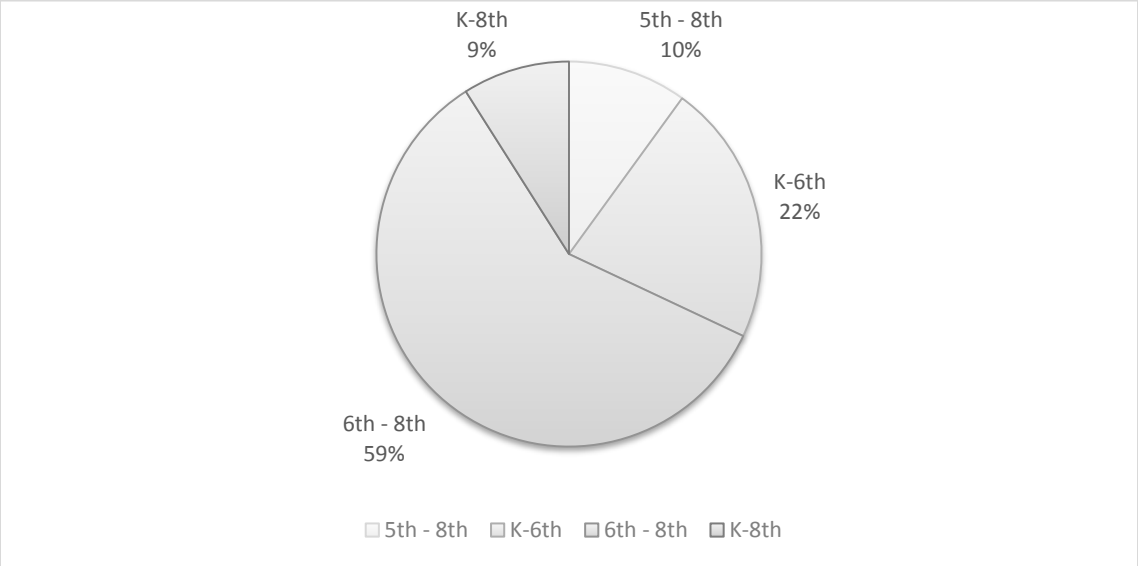

Figure 2. School Configurations for Sixth Grade Students in 2001. Adapted from: DeJong & Craig, 2002 and Seller, 2004.

Research on transitions to secondary institutions has primarily focused on the academic losses of the general population, with minimal research addressing the social-emotional factor of

the shift to a new school environment for at-risk students (Ward et al., 2007). In addition, few studies have focused on the academically vulnerable students who have shown greater declines in achievement upon middle and high school transitions (West & Schwerdt, 2012). Sanders' (2013) study of this growing population of at-risk students, who greatly influence the schooling environment, has been cause for additional research by school leaders and policy makers.

Blum (2005) found that after family, school is the second most important stabilizing force in the lives of students. A student's sense of belonging is "the extent to which students feel personally accepted, respected, included, and supported by others in the school environment" (Goodenow, 1993, p. 80). School connection is the acceptance and respect students feel from school staff members who care about them on an individual basis (Eccles et al., 1993a). Students who felt a sense of connectedness to their schools had a decrease in absenteeism, fighting, bullying, classroom discipline referrals, and vandalism; there was also a positive effect on academic performance, self-motivation, school attendance, participation in extracurricular sports; and graduation rates (Blum, 2005; McNeely, Nonnemaker, & Blum, 2002; Osterman, 2000; Voelkl, 1995). Additionally, sixth grade at-risk students required an environment offering a developmentally appropriate and caring setting to successfully navigate through their educational career (Finn & Rock, 1997; Kiefer & Ellerbrock, 2012). According to the stage-environment fit theory, the decline of young adolescents' sense of connectedness stemmed from the lack of socially and educationally supported communities provided in the junior high environments (Eccles, Lord, & Roeser, 1996). To better address at-risk student needs and address conflicting literature, research is required to be conducted on school connectedness in relation to at-risk students and grade configurations (McNeely et al., 2002). Students who faced academic and emotional challenges needed interventions in effective environments at the onset,

rather than letting school systems wait for them to fail (Druian & Butler, 1987; Juvonen, Le, Kananoff, Augistine & Constant, 2004; Romero, Master, Paunesku, Dweck, & Gross, 2014).

Significance of the Study

This study's purpose was to investigate at-risk sixth grade students' success in three different school models: a traditional kindergarten through sixth grade elementary school, a sixth through eighth grade middle school, and a sixth through eighth grade alternative middle school. The previous studies of school configurations have been limited to general populations of students and have ignored the new insurgence of alternative middle school structures (Klump, 2006). Although studies have addressed programs and school connectedness in relation to at-risk students, there have been minimal studies applying qualitative measures to create a strong case for reform of school configurations, and thus has been noted as a limitation in previous research (Karcher, 2001; Klump, 2006).

There is a strong need for empirical data to drive educational reform to focus on current, student developmental needs rather than on fiscal and facility impacts (Cuban, 2013; Giles & Hargreaves, 2006; Hough, 2004; Osterman, 2000; West & Schwerdt, 2012). This study aimed to gain a more complete answer as to educational best-fit for at-risk sixth grade students with regard to academic, behavioral, and social-emotional indicators within different school configurations. A triangulation of the three indicators was used to measure a student's success.

Previous literature addressed characteristics of alternative programs and the key elements necessary for effectiveness, but lacked a comparative study of different school configurations for at-risk students (Barton, 2005; Quinn et al., 2006). The environments in which students learn are culturally and developmentally different and require consideration in meeting vulnerable students' needs (Wooley & Bowen, 2007). Students' academic, emotional, and social needs are

intertwined and linked to their perceptions of themselves (Eccles & Roeser, 2011). Students who perform poorly in school may have diminished self-esteem affecting their emotional well-being, which ultimately could result in discipline referrals, suspensions, and expulsions, thereby potentially alienating students (Hilberth, & Slate, 2014; Skiba, Peterson, & Williams, 1997). The results of this study provide a broader understanding of the environmental and behavioral needs of students who are not successful academically, emotionally, or both.

This study synthesized the current rebuttal concerning transitions of students between elementary and secondary institutions to determine if there was any correlation between students being considered at-risk and program structure (Clark, Slate, Combs, & Moore, 2014). Researchers studied the impact of students transitioning from elementary to middle school with limited focus of at-risk student subgroups within this study (West & Schwerdt, 2012). Ward, Gresham, and Wantz-Sutton (2007) found that at-risk students were more predisposed to negative impacts on their academics, social skills, and self-concepts than their academically competent counterparts during the elementary to secondary transitions. The U.S. Department of Education initiated a longitudinal study on the transitions of sixth grade students in multiple configurations, which will provide nationwide information on issues related to academics and school connectedness occurring during transitions (Mertens, Caskey, & Flowers, 2016). The results from a study of 20,000 sixth grade students, including students identified with disabilities, but not with at-risk indicators, will be reported in 2019. School reform has resulted in a stalemate on endorsing a structure of the best-fit for the general population and there remains a quandary of the negative impact due to the actual transition or the environment. The disillusionment of alternative programs has marred the reputation of such programs, albeit without research on students who are placed in alternative schools (Lagana-Riordan et al., 2011;

Zolkoski, Bullock, & Gable, 2016). This study fills the void in recent research to determine the most successful program opportunities for sixth grade at-risk students, which may affect administrative and fiscal decisions on future school configurations and offerings.

A significant principle of previous research showed that achievement and well-being of at-risk students was impacted based on school configurations and structures (Alspaugh, 1998; Anderman, 2003; Hannon, 2013). Young adolescents were mismatched according to their developmental needs in school environments, which led to academic failure (Eccles & Roeser, 2011). Using the stage-environment fit model as a theoretical framework provided a lens for the research on student developmental needs within three different school configurations.

Connectedness, at its most basic, describes a student's feelings towards the school, teachers, and peers (Osterman, 2000). It is this factor that has a significant impact on a student's academic outcome (Anderman, 2003; Lemberger, Selig, Bowers, & Rogers, 2015; Waters, Cross, & Shaw, 2010). Vulnerable and marginalized youth have been associated with lower achievement (Alspaugh, 1998; Eccles & Roeser, 2011). Increases in connectedness could predict increases in achievement better than socio-economic status and race (Blum, 2005; Lemberger et al., 2015). A student's sense of belonging is a strong and reliable predictor of academic achievement (Scheulte, Shanahan, Anderson, & Sides, 2003). To create an environment suitable to the needs of disadvantaged youth, an empirical study merging academic success and a sense of belonging was the basis of this needed research.

Eccles et al. (1993a) focused on structural and environmental characteristics of schools within a framework of the stage-environment fit theory, which suggests behavior, motivation, and mental health are impacted by the developmental stage of young adolescents and the school environment. Sixth grade students are susceptible to the developmental period of adolescence,

which is full of changes, including pubertal development, social interaction changes, cognitive development, school changes, and the rise of sexuality (Eccles et al., 1993a; NMSA, 2010). During this time of hormonal changes, schools are essential in the creation of an environment that can assist students in a compassionate, caring, and nurturing approach to meet their psychological needs (Eccles & Roeser, 2009; Kiefer & Ellerbrock, 2012). According to the stage-environment fit theory, middle schools that did not meet the social developmental needs of students demonstrated a decrease in motivation, interest, performance, and attitude of students as they shifted into this setting (Blum, 2005; Buehler, Fletcher, Johnston, & Weymouth, 2015). It is crucial this study provide educational organizations with empirical data to make reforms for at-risk adolescents.

A comparison of the three environments, as separate developmental arrangements, explores how learning and environmental characteristics will result in regressive or progressive trajectories according to the stage-environment fit theory (Gutman & Eccles, 2007). Consistent with the stage-environment fit theory, research has reviewed the environmental variables in middle grades leading to increased belonging in school, but has not established concrete solutions to the middle grades declining academics and sense of caring (Kiefer & Ellerbrock, 2012). Furthermore, schools needed to address change in developmentally positive ways to create a caring setting to build student motivation in school (Eccles & Roeser, 2009). In accordance with the stage-environment fit theory, there could be a disparity between the learning environment and an adolescent's developmental needs (Eccles et al., 1993a). Educational directors must pursue the best learning environment for these young adolescents to prepare them for their future. This investigation sought to provide answers for parents, educators, administrators, community leaders, school boards, and policy-makers on the impact of

developmentally appropriate structures for at-risk students in relation to their academic success and social well-being. School districts could make configuration changes based on the outcomes of this study.

Research Questions

This study compared student achievement, behavioral indicators, and school connectedness in three different school configurations for at-risk sixth grade students. The stage-environment fit theory and the problem statement were used to formulate three research questions:

1. Do at-risk sixth grade students experience more academic success in reading in elementary schools, middle schools, or alternative schools?
2. Do at-risk sixth grade students experience more academic success in math in elementary schools, middle schools, or alternative schools?
3. Are sixth grade at-risk students' social and emotional needs met through greater school connectedness in the elementary schools, middle schools, or alternative schools?
4. Is there a difference in the behavior of at-risk sixth grade students enrolled at elementary schools, middle schools, or alternative schools based on discipline referrals (ODRs), suspensions, expulsions, and attendance?

Description of Terms

The following overview defines important terms within this study to provide precise meaning as intended by the researcher (Creswell, 2017):

Alternative Education. An education program that uniquely meets the needs of students who require behavioral, academic, or medical needs that cannot be met in a traditional school (D'Angelo & Zemanick, 2009; Lehr et al., 2003).

At-Risk Student. An at-risk student can be any child who is not likely to graduate from high school with the skills necessary to meet societal requirements in the areas of work, recreation, culture, community activities, and personal relationships (Sagor & Cox, 2003). **Synonymous terms**: marginalized and vulnerable students are all interchangeable within this paper.

Best-fit. The school environment that meets a student's individual developmental needs through community and caring (Eccles et al., 1993a; Garza et al., 2013; Kiefer & Ellerbrock, 2012).

Middle school concept. The social, emotional, physical, and intellectual development of early adolescents through a collaborative and active learning environment (NMSA, 2010). This requires: integrated curricula, relationships between teachers and students, and a conduit serving the transition from elementary school to high school (Erb, 2006). Middle schools' grade spans comprise a variation of grades fifth through ninth grades. For this study, the middle school configuration consists of sixth through eighth grades.

Retention. The act of not promoting to the next grade and repeating the current grade in school (Tingle, Schoeneberger, & Algossine, 2012).

School configurations. The span of grades comprising a school (Coladarci & Hancock, 2002). The grade structure of a school model this study will focus on: K-6 elementary schools, 6-8 middle schools, and 6-8 alternative schools (Rockoff & Lockwood, 2010). **Synonymous**

terms: models, grade span, structures, environments, and configurations are all interchangeable within this paper.

School connectedness. An academic environment where students feel individually accepted, valued, included, and supported by adults and peers within a group (Goodenow, 1993; Osterman, 2000; Waters et al., 2010). **Synonymous terms**: school climate, belongingness, and sense of community are interchangeable with school connectedness in this study.

Social-emotional well-being. Having basic needs, including belonging and connectedness, to which a student is actively engaged in school through being aware of themselves and of others, make responsible decisions, and manage one's own behaviors (Elias et al., 1997).

Student-centered education. Education that is based on the needs, interests, and abilities of the students to direct the curriculum (Schellekens & Room, 1996).

Traditional school. Brick and mortar school organized into grade levels based on age with teacher-centered instruction in content specific classes (McFarlane, 2011).

Transition. The movement between school models, such as moving from an elementary school to a middle school (Alspaugh, 1998). There are three major transitions in the public education system: students move from elementary school to middle school, from middle school to high school, and from high school to post-secondary school.

Overview of Research Methods

This mixed method investigation sought to gain a definitive answer as to educational best-fit for at-risk sixth grade students regarding academic, behavioral, and social-emotional indicators. The study focused on the configurations and environmental elements of schools connected, hypothetically and practically, to the developmental needs of at-risk students. The

school variables in the research included: school size, demographics, and school discipline policies. The grade constructs of the schools, in relation to appropriate developmental needs of young adolescents from the perspective of the stage-environment fit theory, were analyzed using basic associations between assessments of school connectedness and school configuration. A quasi-experiential design, using surveys, interviews, and data for evaluation with a statistical comparison of ODRs, attendance, and academic scores across the three school structures, was used for this study (Bowllan, 2011; Cook et al., 2007; Gordon et al., 2013). The data consisted of results from first-quarter (fall 2017) reading and math grades of sixth-grade students. A one-way analysis of variance (ANOVA) was conducted to determine the extent of the main effects of the independent variable of grade configuration and the dependent variable of student achievement as measured by the first-quarter grades among sixth-grade students. A multivariate analysis of variance (MANOVA) test was conducted to determine the extent of the main effects of the independent variable of grade configuration on the dependent variable of school connectedness, attendance, and ODRs, among sixth-grade students.

The use of qualitative and quantitative analysis provided a holistic lens to develop a triangulation of research designs. Additionally, to acquire a robust research model, student samples were selected from three northwest states to gain transferability (Creswell, 2017). Three different school models at seven different schools were used as independent variables. Finally, the results from the data were directly compared and related to the theoretical framework of the stage-environment fit theory (Creswell, 2017).

Chapter II

The Literature Review

Introduction

Over the past few decades, changing demographics, shifting communities, and developmental issues have resulted in a lack of adolescent achievement, generating various restructurings of school organizations (Cuban, 2013; Dove & Pearson, 2010; Juvonen et al., 2004). The review of literature scrutinized the grade construct of schools in relation to the social and emotional development of young adolescents. This study focused on three school structures: elementary schools, middle schools, and alternative schools, including each structure's impact on grades, discipline referrals, and school connectedness. The stage-environment fit theory, which describes the impact of the school environment on a student's individual developmental needs, was researched in relationship to these three school structures and programs (Buehler et al., 2015).

The following sections include an analysis and review of research related to school configurations and student developmental needs. The themes shared in this chapter are: 1) school configurations: a history of middle and alternative schools; 2) transition concerns from elementary to secondary; 3) middle school common practices: evolution of middle schools; 4) effective practices for at-risk sixth grade students; and 5) theoretical framework. The review of literature provides a lens of current research and rationalizes the need for additional research in the areas of at-risk students and school configurations.

The topics of school configurations and transitions are rebutted in research with concerns about gender, race, poverty, and marginalized groups (Coladarci & Hancock, 2002; Hough, 2004; Juvonen et al., 2004). This chapter will review current research studying the practices of

the middle school concept; specifically, how and why the fidelity of the intended program has changed in the past decades. The chapter will also include an analysis and synthesis of practices that have proven to be effective for at-risk students (D'Angelo & Zemanick, 2009; Druian & Butler, 1987; Lagana-Riordan et al., 2011; Quinn et al., 2006). The stage-environment fit theory will establish a framework for this study to provide a clear and robust account of current research in response to the developmental appropriateness of the three configurations studied. Finally, the author will close the chapter with a review of the research and its limitations, providing recommendations for schools today along with the justification for a more targeted research population.

School Configurations: A Historical View of Transformations

Over the past century, schools have evolved to improve student outcomes, especially in the early adolescent ages (Webb, 2006). Kindergarten through eighth grade models and ninth grade through twelfth grade high school models began the education revolution in the nineteenth century to develop basic skills, accommodate increased immigration, develop a better-prepared workforce, prevent students from dropping out, and prepare students for high school with the intent to attend college (Cuban, 1992; Juvonen, 2004; Manning, 2000). In 1899, the National Education Association (NEA) provided rationale to begin secondary education at the seventh-grade level due to the unique developmental needs of adolescents (Cuban, 1992). Not until 1910 did the first junior high appear, and not due to the developmental rationale from the NEA, but due to societal and political pressures (Cuban, 1992).

Development of junior highs. Education scholars and psychologists in the late nineteenth to early twentieth century began to explore a plan to implement the following goals: 1) decrease drop-out rates; 2) develop an appropriate education for early adolescents to meet

psychological needs; 3) explore vocational interests; 4) bridge the gap between elementary and high schools; and 5) relieve overcrowding (Angus, Mirel, & Vinovskis, 1988; Clark & Clark 1993; Webb, 2006). It was only after the end of World War II, with the impact of overcrowding and limited space, that school organization changes began (Webb, 2006). With the increase of immigrants assimilating into urban areas after the war, school programs expanded to include health care facilities, such as showers, to meet hygiene needs and community centers to accommodate children and their families (Gruhn & Douglass, 1947). Junior highs were established well into the 1930s to meet the critical desire to develop a wholesome student by offering socialization and differentiated instruction through an exploration of interests (Jovonen et al., 2004). During the mid-twentieth century, several grade configurations and program changes within junior highs began to take shape (Jovonen et al., 2004).

The structure of junior highs, which provided: 1) subject centered classes, 2) rigid schedules, and 3) high school type curricula, were not perceived as developmentally appropriate and were deterring academic success (Cuban, 1992). Critics claimed that junior highs mimicked high school programs and fell short in providing appropriate curriculum, organization, and instruction (Cuban, 1992). The debate continued into the second half of the twentieth century over what was the most developmentally appropriate education for young adolescents (Brynes & Ruby, 2007; Jovonen et al., 2004; Mizell, 2005).

Move to the middle school concept. In the 1960s, the shift from junior highs to middle schools began to emerge, focusing on meeting the social, moral, psychological, and intellectual needs of 10- to 14-year-olds (Cuban, 1992). The catalyst for the organizational change was due to societal changes of the era, including desegregation during the 1970s (Jovonen et al., 2004). Sixth graders were moved from the elementary model to a sixth- through eighth-grade-model.

From 1970 to 1986, the movement to the middle school model increased; the number of middle schools in the U.S. rose from 1,662 to 4,329 (Alexander & McEwin, 1989). Policy-makers felt three grades of a middle school, rather than two grades of a junior high school, provided a better continuum of the program, built connectedness to the school and staff, allowed for social connections, and fit the pubertal changes occurring at this demanding developmental stage in young adolescents (Eccles et al., 1993b; Midgley, 2014). During the middle school reform, some policy-makers did not support specific grades for the middle school model but stated that what goes on inside the building was more important than the configuration of grades (Carnegie Council on Adolescent Development, 1989). Reents (2002) researched the effects of single- and two-grade school models and found that restricted grade diversity in school could delay and harm academic achievement. By 2000, middle schools surpassed their rival, junior highs, with 69% of the grade configurations (Juvonen et al., 2004). Most recently, middle schools have been under scrutiny, with critics alleging student self-esteem, academics, and school connectivity were being lost because middle schools lack the ability to build community and social connections due to the erosion of the true model (Holas & Huston, 2012; Loukas, Cance, & Batanova, 2016).

Resurgence of the kindergarten through eighth grade configuration. Neither junior high nor middle school configurations are popular in the private school sector and these schools continue to operate in a kindergarten through eighth grade model (Rockoff & Lockwood, 2010). Private school students have outperformed their middle school counterparts, and had better self-esteem, by remaining in an environment with elementary students (Alspaugh, 1998; Byrnes & Ruby, 2007; Rockoff & Lockwood, 2010; Rubenstein et al., 2008). Public schools that have maintained or reverted to the kindergarten through eighth grade structure are significantly less in number and are more prevalent in rural areas such as the Midwest and Eastern United States

(DeJong & Craig, 2002; Hough, 2004; Paglin & Fager, 1997). Their performance mimics the same positive trajectory of the private schools (Rockoff & Lockwood, 2010).

Additional research found some educational components were lacking because of the kindergarten through eighth grade structure (Gomez, Marcoulides, & Heck, 2012; Paglin & Fager, 1997). Kindergarten through eighth grade teachers reported they had limited collaboration time, educational decision input, and resources, along with inferior leadership and less productive communication with colleagues, due to the size of the school in comparison with their middle school counterparts (Gomez et al., 2012). Another study of northwestern, rural public schools found students who had limited exposure to a variety of teachers, teaching styles, and specialty classes during their kindergarten through eighth grade schooling were deprived of a more global experience in contrast to their middle school peers (Paglin & Fagler, 1997).

However, positive effects of the kindergarten through eighth grade configuration substantially outweighed the negative aspects according to numerous research (Battistich, Schaps, & Wilson, 2004; Byrnes & Ruby, 2007; Cuban, 2003; Garza et al., 2013; Gomez et al., 2012; Kiefer & Ellerbrock, 2012; Paglin & Fagler, 1997; Scheulte et al., 2003). Parents of students enrolled in kindergarten through eighth grade were perceived as being more supportive and involved than parents of traditional middle school students (Gomez et al., 2012; Paglin & Fagler, 1997). Additional research found that students suffered academically due to transition to middle schools, which was not the case in kindergarten through eighth grade schools that did not have such transitions (West & Schwerdt, 2012). The researchers concluded that urban school districts need to maintain school configurations of kindergarten through eighth grade, rather than changing to middle school configurations. Researchers also found that smaller schools with a kindergarten through eighth grade configuration had a more connected community with students

and faculty involved in the mission of the school, resulting in positive academic outcomes (Battistich et al., 2004; Byrnes & Ruby, 2007; Cuban, 2003; Garza et al., 2013; Gomez et al., 2012; Kiefer & Ellerbrock, 2012; Scheulte et al., 2003).

An alternative movement. Alternative schools came into the educational realm later in the history of education, but have had the most diverse organizational and physical layouts (Aron, 2006; Lange & Sletten, 2002; Lehr et al., 2003). In the 1960s, alternative schools were private alternatives for students who were failing in public schools (Lehr, Tan, & Ysseldyke, 2009; Quinn et al., 2006). In suburban America, there were alternative programs that were reinventing the traditional educational models (Raywid, 1995). In 1983, after the publication of *A Nation at Risk*, the United States began progressively restructuring the educational system (Aron, 2006). The report provided eye-opening statistics that high school completion rates had dropped to under 70%, providing a catalyst for alternative pathways (Barton, 2005). Presently, alternative programs are an expected offering in most public school districts around the country, with 48 states offering a smaller environment for at-risk students, mainly in secondary grades (Aron, 2006; Lehr et al., 2003). There is limited scholarly research on middle schools, and even less on alternative middle schools, suggesting a need for more empirical data (Hough, 2004; Lagana-Riordan et al., 2011; Zolkoski et al., 2016). There is disconnect in research with how to measure the success rate of an alternative student whether it be academic or nonacademic outcomes (Lange & Sletten, 2002). Most of the research has been for high school students in response to drop-out rates (Barton, 2005; D'Angelo & Zemanick, 2009; Lehr et al., 2009).

When looking at school configurations, it would be ideal to use the most effective model to ensure academic, social, and behavioral well-being of students (Hannon, 2013). Fiscal restraints have hindered organizations' ability to build community schools that can foster

developmental needs (Cuban, 2013; Giles & Hargreaves, 2006; Osterman, 2000; West & Schwerdt, 2012). The shift of sixth grade students to the middle schools was due to the rise in student enrollments in the 1970s (Cook, MacCoun, Muschkin, & Viddor, 2008). Policy makers created structural changes to meet overcrowding issues rather than delivering an educational environment that reflects research (Cuban, 2013). Table 2 references school configurations over the past century.

Table 2

History of Public School Configurations

School	Inception	Grades	Reason
Kindergarten – eighth grade	Prior to 1900	K -8	Compulsory Education Law
Junior High Schools	1909	7 -8	Decrease drop-out rates K-8 schools not dealing effectively with seventh & eighth grade students
Middle Schools	1960's	6-8	Move from subject-centered to student-centered Need to develop social/emotional well-being
Alternative Schools	1970's	K-12	Prevent dropout Improve self-esteem & social skills Build connectedness to school/teachers

Note. A synthesis of configurations from: Angus et al. (1988); Aron (2006); Barton (2005); Clark & Clark (1993); Cuban (1992); Webb (2006)

Out of the box configurations. Other lesser-known models have also been studied to find the right configuration to meet young adolescent needs. Schools containing students of one grade level have been researched with some mixed results (Hopkins, 1997; Paglin & Fager, 1997; Reents, 2002). The advantages of a single grade configuration could provide a solution to

overcrowded schools, creation of focused grade-level programs, participation in more same-age activities, and more diversity in course offerings (Paglin & Fager, 1997; Reents, 2002). In contrast, some disadvantages suggested by Hopkins (1997) were more student travel, distance restraints for parents, increased transitions, and fewer interactions with multiple age groups. Reformists continue to experiment with creative methods to accommodate students (Balfanz et al., 2007; Cuban, 2013; Kiefer & Ellerbrock, 2012; Midgley, 2014). For example, the movement to virtual schools has been increasing at a tremendous rate, which provides students with a plethora of online options, including blended and hybrid models (Allen & Seaman, 2013). At-risk students frequently enroll in online options as an effort to regain credits and avoid potential failure (Watson & Gemin, 2008). Online education met the needs of students who required flexible, unconventional times (Allen & Seaman, 2013). Conversely, students of low socio-economic status are less likely to maintain successful grades in online instruction (Curtis, 2013). The evolution of configurations and models of schools continues to be an area of research and debate. As alternative schools become an option for elementary level students, there may be more studies of diverse school models (Lange & Sletten, 2002; Mertens et al., 2016; Quinn et al., 2006).

When considering school configurations, many factors must be considered. Some recommendations made to accommodate a district's inability to change school configurations were to use professional learning communities, teacher development, cooperative learning, and best practice models for instructional strategies (Blum, 2005; Byrnes & Ruby, 2007; Erb, 2006). Cook et al. (2007) provided a direct recommendation of moving sixth grade back to an elementary configuration, with one more year of childlike environments to decrease the negative impact of middle school models. In opposition, other studies indicated that the mere structure of

a school did not affect the academic and social-emotional needs of students (Klump, 2006; Weiss & Bearman, 2007). In the next fifty years, we will continue to see innovative adjustments to school models and programs through new reforms triggered by studies such as *The Silent Epidemic*, which reported that dropout rates were due to students' sustained sense of disengagement from school (Bridgeland, DiIulio, & Morison 2006).

Transition Concerns from Elementary to Secondary

Under the current middle school model, students have been moved from their nurturing, self-contained elementary classroom to an institution of seven classes in a hormonally-charged middle school, which is intense and tumultuous for ten- and eleven-year-old students (Akos, 2002; Wormeli, 2011). During this transition, students experience lowered academic achievement, a drop in self-confidence, and an upheaval in their social groups (Alspaugh, 1998; Romero et al., 2014; Schwerdt & West, 2012). This is different from the transition to high school, which does not alter a student's achievement trajectory except for the initial year as a ninth grader; and the loss is then regained in subsequent years (Schwerdt & West, 2012).

Students who transition as a cohort with their peers have reduced negative impacts as students who move from multiple elementary schools and merge into one middle school (Alspaugh, 1998). A fifth-grade student's perspective on the transition to middle school held an optimistic view of making new friends, going to gym classes, having lockers, changing classes, and having more freedom (Akos, 2002). Unfortunately, these perceptions changed as sixth grade students assimilated into their new middle school environment, and their optimistic perceptions eroded (Booth & Gerard, 2014; Holas & Huston, 2012).

A longitudinal study, measuring the academic difference between eighth-grade students in a kindergarten through eighth grade and a middle school configuration, found significant

results with regard to achievement (Byrnes & Ruby, 2007). The three levels in the study included: all eighth-grade students, kindergarten through eighth grade and middle school configurations, and the cohorts of 495 students over a 5-year span in 95 schools. The results showed the kindergarten through eighth grade school had significantly higher levels of achievement over the middle school model, but the newly established kindergarten through eighth grade schools did not have the same positive outcome due to insufficient time to cultivate a school culture. In addition, the newly established kindergarten through eighth grade schools did not test higher than the middle school model in math achievement scores in comparison with the middle school configuration. Generalized conclusions found that kindergarten through eighth grade schools had higher achievement due to smaller class sizes and fewer transitions, provided the institution had been established long enough to create a school culture (Byrnes & Ruby, 2007; Waters et al., 2010).

Transitioning students from several elementary schools and merging them into one large middle school revealed greater achievement losses in their first year of the new environment than their peers who attended schools without transitions (Alspaugh, 1998). Some research found that, evidentially, the discrepancy in academics was made up during the subsequent years (Alspaugh, 1998). However, other studies found that middle school students did not regain these academic losses even beyond their entry into high school (West & Schwerdt, 2012). A second transition for middle school students to high school demonstrated a greater decrease in academic achievement, rather than the kindergarten through eighth grade model, where students underwent a single transition to high school (Alspaugh, 1998; Byrnes & Ruby, 2007; Rockoff & Lockwood, 2010; Rubenstein et al., 2008). Fortunately, the initial academic loss did not interfere with those students' subsequent years in high school (West & Schwerdt, 2012). Additionally, research

found a significant drop in standardized test scores of students who entered middle school in sixth or seventh grade, and they proceeded to fall further behind throughout their middle school career (Rockoff & Lockwood, 2010). Furthermore, students who were deemed at-risk fared even worse on standardized tests than their general population peers (Rockoff & Lockwood, 2010). Current research is consistent with the findings that students have less academic loss with fewer transitions, and lower achieving students are more at-risk of not recouping the lost achievement (Brynes & Ruby, 2007; Holas & Huston, 2012; Loukas et al., 2016).

In addition to academic struggles, sixth grade students in middle schools have more disciplinary referrals than their peers who attend sixth grade in the elementary schools, and they continue that trend into high school, according to data from discipline infractions and end of course (EOC) test scores (Balfanz et al., 2007; Cook et al., 2007). The researchers found that sixth grade students in middle school had more access to bad influences of older adolescents, and their behavior issues continued into ninth grade. The other effect on student behavior due to transitioning was that students did not know the rules in their new environment and had less supervision than in their elementary schools (Cook et al., 2007; Wentzel, Baker, & Russell, 2012). This effect also stood true for seventh grade students entering middle school for the first time, indicating transitions themselves were an indicator for behavior referrals resulting from lack of understanding of school rules. Impressionable, sixth grade students in an environment with older peers and less supervision led to poor choices which resulted in the increased offenses (Cook et al., 2008).

There are many claims to explain the negative changes in adolescents' psychological and behavioral development (Eccles et al., 1996). A study compared the pattern of change between adolescents who transitioned from sixth to seventh grade in an elementary school to middle

school transition and a transition within a kindergarten through eighth grade school (Simmons & Blyth, 1987). The results could not distinguish if the impact of the transition to seventh grade was negative due to the nature of the two school environments or due to pubertal changes. Researchers had a difficult time isolating the contributing variable of school transitions, since so many aspects of education are interrelated (Dhuey, 2013; Patrick, Ryan, & Kaplan, 2007). A conclusion by Akos (2002) and Seller (2004) indicated the complex nature of transitions resulted in being unable to identify a single grade structure that met all the needs.

Conversely, a few recent studies have shown counter findings in educational and behavioral issues during transitions to middle schools (Day, Hamm, Lambert, & Farmer, 2014; Erb, 2006; Hannon, 2013; Ward et al., 2007). A survey of sixth grade students' transition perceptions and actual experience related to peer acceptance was conducted over three intervals during the spring of their fifth grade year, fall of sixth grade, and spring of sixth grade (Day et al., 2014). The survey included perception of acceptability and sense of belonging at school. The study found trends perceiving middle school students as experiencing negative impacts from transitioning itself, but in retrospect found that students who had positive peer relationships had a more positive transition into middle school (Day et al., 2014). A research study by Hannon (2013) on the same school models, kindergarten through eighth grade versus middle schools, found that students in both configurations performed about the same academically. The variances in the study occurred within the six independent variables relating to demographics of the student. When a student moved from a junior high to a kindergarten through eighth grade model, they had less of a chance to be proficient than students who had spent the majority of their career at the same school. Equally, students could increase their proficiency if they were a high achieving student before the transition (Hannon, 2013). Students who had the ability to be

part of social groups and cultivate strong connections between staff and family experienced positive transitions into middle school (Green & Cypress, 2009; Hannon, 2013). According to the research, average students did equally well with transitions from elementary to middle school settings, and parents should ease their anxiety with regard to middle school transitions (Ward et al., 2007).

Subpopulations had findings that are more specific. The results on gender found sixth grade girls to be socially optimistic, viewing the transition positively (Day et al., 2014). Boys, on the contrary, were not as positive as girls were, and minority males were more likely to have trouble transitioning (Alspaugh, 1998; Cook et al., 2007; Loukas et al., 2016). Table 3 fuses research findings of positive and negative results of elementary to secondary transitions.

Table 3

Pros and Cons of Transitions

Positive Results of Transitions	Negative Results of Transitions
Positive peer relationships	Lower sense of school involvement
GPA maintained	Felt less safe
Discrepancy of loss in academics diminishes	Less knowledge of rules
	Academic loss in first year
	Drop in standardized tests

Note. Adapted from: Alspaugh, 1998; Cook et al., 2007; Holas & Huston, 2012; Juvonen et al., 2004; Romero et al., 2014; Weiss & Kipnes, 2006.

Looking at research on school connectedness in other countries, which shows students to have a more positive outlook on their middle school experience, the studies indicate several factors where reform is needed for the United States (Dhuey, 2013; Juvonen et al., 2004). Reforms at the middle level need to:

- focus on changing the school configuration from the traditional sixth through eighth middle school to a configuration that would diminish transitions,
- implement interventions prior to sixth grade,
- have a structured and clear disciplinary program,
- provide professional development with a focus on classroom management,
- include parents in trainings and activities,
- use research from other countries who report strong school connectedness, and
- build positive school climate (Dhuey, 2013; Juvonen et al., 2004).

The overall results found high-quality instruction, shown through the evidence of classroom quality assessments and student achievement, were factors for success in middle schools; the placement or configuration of the school were not (Alspaugh, 1998; Cook et al., 2007; Holas & Huston, 2012; Juvonen et al., 2004; Romero et al., 2014; Weiss & Kipnes, 2006). Several recommendations were made from the studies that concurred with effective teaching practices. The general consensus of the studies, from both views, was that students who have access to smaller schools, positive classroom climate, established peer relations, positive self-esteem, and higher academic grades fared better in transitions (Holas & Huston, 2012; Romero et al., 2014).

Middle School Common Practices: Evolution of Middle Schools

Middle schools began in the 1970s on the premise that students of the preadolescent age required social and developmental supports that junior highs could not offer (Cuban, 1992; Weiss & Kipnes, 2006). The restructuring led to several goals: a home-base teacher for every student, personal development, an instructional system focused on individual progress, cooperative planning and instruction, and exploratory activities (Gatewood, 1973). The key

principles of the middle school concept included teachers who were properly trained in the developmental needs of adolescents and using an integrated curriculum within small teaching teams, which created a sense of belonging and security (Beane & Lipka, 2006).

The most researched model for middle school reform was the *Turning Points* model, which was published by Carnegie Council on Adolescent Development (1989) in response to the lackadaisical implementation of the middle school model in the 1980s. Implementation of the *Turning Points* model with fidelity resulted in positive outcomes for academic and behavioral components of at-risk students. The report identified eight key principles effective for youth between ages 10 to 15 years (Table 4). Carnegie Council on Adolescent Development (1989) followed the principles with phases of implementation from low to high integration of various goals, with the outcome becoming comprehensive rather than one-dimensional or low integration. Carnegie Council concluded that the middle school model remained the most influential factor for increasing young adolescents' performance.

A later study by Lagana-Riordan et al. (2011) showed the effectiveness of a solution-focused approach: a practice in altering the behavior of at-risk students, focused around eight major characteristics (Table 4). The researchers compared differences on how students experienced their traditional school and the solution-focused school (Lagana-Riordan et al., 2011). Table 4 compares *Turning Points* key principles to a solution-focused approach, which had similar components focusing on academic success and attention to positive relationships.

Table 4

Turning Point Model Compared to Solution-Focused Model

Turning Point Model	Solution-Focused Model
• Middle schools are structured into smaller communities	• Importance on building upon students' strengths
• Core curriculum provided for all students	• Responsiveness to student relationships and improvement
• Ensures success for all students	• Emphasis on student accountability and autonomy
• Empowers the administration and teachers	• Obligation to achievement and success
• Specially trained teachers	• Confidence in students' assessments
• Supports positive fitness and health education	• Emphasis on students' success rather than past failures
• Families form a partnership with staff	• Focus on goal-setting programs
• Connections with community supports	

Note. Summarized from: *Turning Points.* Carnegie Council on Adolescent Development [CCAD], 1989; Lagana-Riordan et al., 2011.

Over the past two decades, the middle school concept has been evolving due to several factors (Beane & Lipka, 2006; Weiss & Kipnes, 2006). Maintaining the connectedness of a home-base teacher and cooperative planning has been limited due to fiscal issues and school schedules (Weiss & Kipnes, 2006). Subsequently, under the No Child Left Behind Act in 2001, which required teachers to teach only in their licensed content area, assigning students to one or two teacher teams was not possible. This thwarted the middle school concept of creating a sense of belonging, since multiple teachers were necessary to cover all subjects (Beane & Lipka, 2006; United States, 2004). Sixth grade students were moved from elementary schools to middle schools as an economic solution to ease overcrowding in elementary schools (Paglin & Fager,

1997). The movement away from implementing the middle school concept as a complete set of principles has become common practice, which falls short of its intention for developmentally appropriate environments for young adolescents (Beane & Lipka, 2006).

The National Middle School Association (2010) and Erb (2006) stood firm in that the middle school concept was the best reform for young adolescents and needed to continue as the catalyst for middle school reform. They stated that opponents to the middle school concept should keep their independent variables separate from the true middle school concept when fully implemented. Some naysayers felt moving students into smaller environments and decreasing transitions was a better way to meet adolescent learning and behavioral needs than the middle school model (Cook et al., 2007). Middle school advocates concurred with the *Turning Points* (Woodside, 1989) study and *This we believe: Successful schools for young adolescents*, position papers by the National Middle School Association (2010), that implementing individual factors did not improve student outcomes, hence, the frustration of school districts that condemned the middle school concept.

The middle school concept has gone through transitions as educational reforms have escalated in the past forty years (Erb, 2006; Woodside, 1989). Because of legislative changes, implementing the middle school concept with fidelity has been a challenge (Beane & Lipka, 2006; Weiss & Kipnes, 2006). Educational reform continues to revisit the viability of the middle school concept, and research continues to acknowledge the sound practices that create developmentally appropriate learning environments for young adolescents (Cuban, 1992; Weiss & Kipnes, 2006).

Effective Practices for At-Risk Students

From environments to pedagogy, teachers are continually refining their craft to educate students, especially low achieving adolescents (Blum, 2005; Brand, Felner, Shim, Seitsinger, & Dumas, 2003; Cuban, 2013; Finn & Rock, 1997; Karcher, 2008; Scheulte et al., 2003). In the present education forum, schools have become a surrogate family unit entrusted with the duty of providing a multitude of resources to assist marginalized students, whose numbers have increased in over the past decades (Quinn et al., 2006).

At-risk students are identified early in the school system though a collection of demographics, academic scores, and family history (Balfanz et al., 2007; Barton, 2005; Finn & Rock, 1997). Barton (2005) used early identification information to target remedial interventions to deter the potential of academic failure. Alternative programs primarily serve 12- to 21-year-old students who have disabilities, which include social and emotional disorders, learning disabilities, and ADHD (Foley & Pang, 2006). States provide their own selection process of qualifications to meet at-risk status to access their allocation of state funds (Barton, 2005). Some states use standardized testing as their sole indicator or they incorporate more environmental factors such as incarceration or homelessness (Barton, 2005).

Middle schools have limited options for students who do not meet criteria for promotion. Retention is one of the consequences for students who do not meet grade requirements or credits necessary to promote to the next grade level (Juvonen et al., 2004). This can result in more than just a missed year of education; it can also lead to loss of opportunities, mental health issues, and depleted educational resources (Tingle et al., 2012). Tingle et al. (2012) noted that minorities and males were twice as likely to be retained as girls were, and retained students were five times more likely to drop out of school. Many research studies have been conducted to target key

factors that lead at-risk students on a path to graduation (Green & Cypress, 2009; Lagana-Riordan et al., 2011; Quinn et al., 2006).

The organizational structure of most alternative education programs is overseen by a site-based administrator at an off-campus facility with an average of 90 students (Foley & Pang, 2006; Lehr, Moreau, Lange, & Lanners, 2004). Small school populations are exhibited as more motivational for marginalized students, which creates mutual caring environments where students reciprocate caring behaviors to teachers (Kiefer & Ellerbrock, 2012). Alternative schools frequently lack facilities for physical education, libraries, and science laboratories, and alternative schools are staffed with a greater number of paraprofessionals than traditional schools. The most prevalent support service provided in alternative settings is a social worker, followed by counselors, paraprofessionals, school nurses, psychologists, and vocational teachers (D'Angelo & Zemanick, 2009; Foley & Pang, 2006; Quinn et al., 2006). The alternative programs are most frequently structured with adolescents taking six classes a day, with classes lasting 65 minutes each (Foley & Pang, 2006). Even though programs are varied, the class schedules and structures are very similar.

In response to the continued increase in school dropout rates, preventing academic failure of at-risk students has been at the forefront of issues in the United States (Barton, 2005; Lagana-Riordan et al., 2011). Research supports a meaningful relationship between education and motivating students to stay in school (Kiefer & Ellerbrock, 2012; Roeser & Eccles, 1998). There are four characteristics that a successful at-risk program needs to include: 1) separate school, 2) vocational component, 3) community-based learning experience, and 4) focused, individualized instruction with low student to teacher ratios (Hamilton, 1986). Even though these components originated 30 years ago, many of the characteristics have held true in recent research (Blum,

2005; Freeman et al., 2015). Table 5 synthesizes the research on target practices for at-risk students to reduce failure in school. These noteworthy practices are surprisingly similar to effective teaching pedagogies for all students, and should not be limited to students at-risk of dropping out (D'Angelo & Zemanick, 2009; Garza et al., 2013; Teske, 2011; Tingle et al., 2012).

Table 5

A Summary of Effective At-Risk Prevention Practices

Practices	Examples
Strengths Based Instruction	• Focus on strengths of the student • Students provide input to instruction • Solution focused methods • Clear instructional focus • Work related projects
Student-Teacher Relationships	• One-to-one personal attention • Respect among peers and teachers • Students connect with teachers outside of class time • Fewer punitive punishments, more chances • Non-authoritarian attitude • High quality lessons building on interests of students
Home-to-School Connections	• Ask about personal interests, hobbies, and activities • Be aware of changes in student behavior • Reach out to families frequently • Learn about family circumstances • Help with solutions to family problems • Provide family workshops or groups
Positive Behavior Management	• Set clear reasonable expectations • Reward good behavior • Teach classroom expectations • Take individual situations into account • Give a choice in consequences
School Environment	• Work to improve peer acceptance • Create a school culture of safety • Use students to teach expectations • Build personal responsibility • Form small interactive groups • Predictable structure • Motivate in small school environments
Support Services	• In-school and out of school referrals • Counselors, social worker • Continual professional development • Focused counseling groups • Behavior assessments/contracts

Note. Adapted from: D'Angelo & Zemanick, 2009; Druian & Butler, 1987; Lagana-Riordan et al., 2011; Quinn et al., 2006.

Alternative school environments implement interventions to address the needs of at-risk students through academic, behavioral, and social programs that build a sense of belonging, satisfaction, and positive self-esteem (Lange & Sletten, 2002). Academic programs that fit the students' needs and interests, based on mastery of skills in a small classroom environment, are optimal for at-risk students (Barr & Parrett, 2011; Lange & Sletten, 2002). Providing evaluative procedures for determining the purpose and reason for student behaviors allows staff to develop behavioral programs. Restorative practices rather than punitive interventions use positive behavioral intervention supports (PBIS) to establish clear and concise expectations to improve overall school climate, or solution-focused approaches, which focus on key characteristics (Lagana-Riordan et al., 2011; Nocera, Whitbread, & Nocera, 2014; Smith, Bicard, Bicard, & Balot-Casey, 2012). Building strong relationships by taking into account a student's home challenges elicits respect and school pride to meet social deficits of at-risk students (Green & Cypress, 2009). Successful programs for at-risk students are physically separate from other traditional schools to build community (Hamilton, 1986).

Research has shown that school-wide positive behavior supports (SWPBS) are a comprehensive behavior management program to establish preventative interventions that reduce office discipline referrals (ODRs) with at-risk students (Blum, 2005; Finn & Rock, 1997; Nocera et al., 2014; Simonsen, Jeffrey-Pearsall, Sugai, & McCurdy, 2011). SWPBS, when initiated by teachers, have a significant reduction in ODRs, ultimately reducing suspensions. The SWPBS are effective because they are not a punitive form of punishment, but an individual approach to meet students' needs and to provide instruction on behavioral expectations (Smith et al., 2012).

A positive school environment and a caring climate are essential in meeting at-risk students' desires for belonging (Buehler et al., 2015; Kiefer and Ellerbrock; 2012; McNeely &

Falci, 2004). The effects of school connectedness on a student's academic and behavioral well-being have been extensively researched (Blum, 2005; Bond et al., 2007; Bookmeyer, Fanti, & Henrich, 2006; Catalano, Haggerty, Oesterle, Fleming, & Hawkins, 2004; McNeely et al., 2002; Shochet, Dadds, Ham, & Montague, 2006; Waters et al., 2010). Globally, the United States did not fare well in comparison to other nations' middle school students and their perceptions of educational experiences (Juvonen et al., 2004). Students did better in schools built on connectedness and high academic expectations (Lemberger et al., 2015). Adolescents from the United States reported negative perceptions of learning environments, including their view of peer culture and school climate, as compared to same age peers in eleven other nations (Juvonen et al., 2004). The researchers found that middle school teachers in the United States were not licensed in the subject matter they were teaching due to alternate routes for certification and provisional certifications, therefore diminishing the rigor of the instruction (Juvonen et al., 2004; Libby, 2004). Global research of student perceptions of academic and social-emotional factors is needed to increase positive attitudes towards learning.

One study looked at a comprehensive list of influences on student success and found that students have more of a sense of connectedness if they:

- transition effortlessly from elementary to secondary;
- have average or better than average grades;
- participate in activities;
- maintain good family relationships; and
- make connections with teachers (Waters et al., 2010).

Predictors of the positive outcomes were small school size and higher writing skills. Other factors included pride in school, use of a homeroom, and relationships with teachers, family, and

peers (Gutman & Eccles, 2007; Waters et al., 2010). The Student Success Skills (SSS) program accessed the school counselor to elicit interventions that encompassed social skills needed to promote positive relationships in the school community (Lemberger et al., 2015). The SSS program includes weekly lessons along with small group counseling component. This program, along with others, has been effective in improving academic achievement, and sense of connectedness in all grades. Table 6 summarizes the elements of school connectedness in three areas.

Table 6

Elements of School Connectedness

Environment	Individuals	Culture
High academic standards	Trust	Learning is valuable
Well structured	Relationships	Rigor
Relevant curriculum	Communication	Prevention
Flexible	Caring	Clear and consistent
Individualized	Active participation	Celebrations

Note. Summarized from Gordon et al., 2013; Waters et al., 2010.

School based mentoring programs (SBMP's) provide students a personal relationship with a knowledgeable and caring person (Karcher & Herrera, 2007). A study to promote leadership skills in youth examined a SBMP from California called the Safe School Ambassadors, which recruited a diverse student population of leaders from different peer groups within the selected schools (Pack, White, Raczynski, & Wang, 2011). The leaders were trained on how to alleviate mistreatment and bullying in the school environment and were then reintegrated back into their cliques. The data showed that the Ambassadors' effectiveness within their own peer groups had positive effects on reducing discipline referrals, including bullying incidents, and an overall improved school climate. Another mentor program established a wraparound partnership with the family, community, and school to promote academic success

and social and behavioral health of students (Gordon, Downey, & Bangert, 2013). The results of the study found students had significantly fewer absences, a lower number of behavioral referrals, and a stronger sense of school connectedness than the control group. Sixth grade was impacted the most by the mentor program, followed by the tenth grade, showing an increase in interest towards reading after only a year in the program. SBMP fostered the creation of a positive and safe school climate to meet the supportive and caring needs of at-risk sixth grade students (Gordon et al., 2013; Karcher, 2008; Karcher & Herrera, 2007; Pack et al., 2011).

Studies on discipline found that using punitive and reactive discipline did little to reduce negative behaviors, but self-management strategies were a productive way to increase and develop skills for students to be successful in school (Smith et al., 2012). To test the effectiveness of a self-management behavior intervention program called Student and Teacher Agreement Realignment Strategy (STARS), all students were provided a bi-weekly social skills lesson based on the five school behavioral norms (Thompson & Webber, 2010). The data were used to make purposeful decisions on individual student behaviors and assist in the goal writing for each student. The results from the STARS program showed that self-management strategies were a productive way to increase and develop skills for students to be successful at school.

Research also supported enforcing a strong and fair discipline program for at-risk students to meet their need for behavioral expectations and limits (Smith et al., 2012). Discipline programs responded to behaviors by using punitive measures, such as detention, suspension, and expulsion, which were ineffective when dealing with disruptive students (Thompson & Webber, 2010). Suspension is not only punitive, but it removes the student from the learning environment, which defeats the purpose of having them in school (Smith et al., 2012). Students who were male, low socio-economic status, minority, and had lower academic performance were

more likely to be suspended (Mendez & Knoff, 2003; Smith et al., 2012; Teske, 2011). The research provided these alternatives to suspension for students of greatest risk:

- Use of in-school suspension;
- Saturday school;
- Rehabilitative component (e.g., restorative justice);
- Actively involved parents;
- Use of outside agencies (e.g., counseling) (Mendez & Knoff, 2003).

The most important practice was to prevent the behavior from recurring and to teach and model positive social behaviors, rather than just punishing undesirable behaviors (Smith, et al., 2012). The implementation of functional behavior assessments to determine the antecedent and reinforcer of the acting-out behavior was part of the process to develop individualized behavior programs, which could include wraparound supports from outside agencies (Mendez & Knoff, 2003). A collaborative approach, using a multi-integrated system in the juvenile court system, provided a process of agencies that met regularly to assess the needs of students prior to court referrals. Within these panels, psychologists, social workers, counselors, and school personnel worked together with the family to create an integrated action plan to address the student's behavior. With the use of the panels, school-related offenses decreased 86%, along with a decrease of 43% in minority referrals, and an increase in graduation rates (Teske, 2011).

Alternative programs that supplement the public education system provide supports to students who require modified hours. An evening high school, Twilight Program, created an on-campus environment of small teacher-to-student ratios, creative teachers, intimate school layout, counseling, work experience opportunities, and discipline procedures (D'Angelo & Zemanick, 2009). Staff is an essential component to a program, and requires hiring teachers who desire to

work in an alternative program, teachers with diverse backgrounds, a guidance counselor, and security personnel. The Twilight Program did not want to alienate students, and it wanted them to have a sense of belonging by keeping the program in-house at their regular high school campus (D'Angelo & Zemanick, 2009). The curriculum of the program was individualized to meet the large span of abilities in the population. The teachers provided units that were applied to life skills and built a rapport of respect, which eliminated a majority of discipline issues.

To implement the most effective program for at-risk students, the organizational obstacles that prevent the most effective programs must be overcome. Retention of qualified and specially trained teachers are essential in this high stress environment. In addition, inequity concerns occur for at-risk programs, including receiving less than the school's just proportion of funding, as compared to traditional schools, which is needed to improve or increase the physical needs of the facility (Foley & Pang, 2006). Finally, a study on parent perceptions of their child's alternative school placement found one-third of the guardians were actively involved, or supported their child's education program placement, in comparison with two-thirds of traditional school children's parents (Foley & Pang, 2006). Programs that engage parents and elicited their involvement for marginalized students have affected behavior positively (Avvisati, Gurgand, Guyon, & Maurin, 2014). To address the deficits in at-risk programs, schools and districts must work cooperatively to alleviate these concerns through active communication to all stakeholders (Lagana-Riordan et al., 2011).

At-risk students were also continually disregarded in their school environments due to either ethnicity, gender, or socioeconomic status (Eccles & Roeser, 2009; Hannon, 2013; Teske, 2011; Tingle et al., 2012). Without research-based practices, at-risk students continue to fail and become a dropout statistic (Bowers et al., 2013; Finn & Rock, 1997; Teske, 2011; Tingle et al.,

2012). The research shows that at-risk students in the sixth grade have a dilemma of finding an effective school model that supports their academic, social, and behavioral needs (Gut & McLaughlin, 2012; Lagana-Riordan et al., 2011). The educational system must not stereotype students who have social, behavioral, and academic challenges by tracking students into a vocational program (Foley & Pang, 2006). At-risk students should not be limited and ushered into nonprofessional occupations just because they meet the at-risk criteria (Beken, Williams, Combs, & Slate, 2009; Druian & Butler, 1987). In summary, there are multitudes of programs that address needs of at-risk students; the key is to implement the programs with the structures that best create a supportive environment and do not limit their accessibility to higher education options (D'Angelo & Zemanick, 2009; Druian & Butler, 1987; Lagana-Riordan et al., 2011; Quinn et al., 2006; Thompson & Webber, 2010).

Theoretical Framework

One of the propositions of the stage-environment fit theory is that adolescents' developmental needs change as they transition through elementary, middle, and high school (Eccles & Roeser, 1999). With all the hormonal changes and developmental challenges of middle school students, schools today have struggled to provide the most supportive and academically productive environments, especially for students who struggled academically and emotionally (Buehler et al., 2015; Catalano et al., 2004; Cuban, 2013; Dhuey, 2013; Eccles et al., 1996; Simmons & Blythe, 1987). Fifth grade students who experience lower levels of academic success had a higher probability of reduced school connectedness in middle school, where they were apt to experience less supportive learning cultures, greater academic rigor, and less safe environments (Buehler et al., 2015). The stage-environment fit theory emphasizes the need for a healthy connection between student needs and the supports offered by the school environment

(Buehler et al., 2015; Roeser & Eccles, 1998). Research shows a strong relationship between adolescent developmental and interaction in their school environment, depending on the school's ability to meet individual needs (Buehler et al., 2015; Gutman & Eccles, 2007; Kiefer & Ellerbrock, 2012; Loukas et al., 2016; Roeser & Eccles, 1998). This relationship, or connectedness, is a culmination of concepts including belonging, relatedness, attachment, conventional versus unconventional social involvement, and prosocial versus antisocial bonding (Karcher, 2001).

According to Roeser and Eccles (1998) a hierarchy of interwoven school-based environmental levels exists. At the top of the hierarchy, the most direct environment to the student is the classroom; followed by the school building, the school district, and finally the community (see Figure 3). The classroom organization, which encompasses the teacher's beliefs including a teacher's sense of efficacy and expectations, is the most impactful to the student. Furthermore, the school climate of the classroom is a factor, with the teacher-student relationship being key, along with orderly and predictable classroom management. Another feature of the classroom is the pedagogical nature of the academic work directed by the curriculum and the design of the lesson. Finally, the environment must also be motivational to engage students in learning (Keifer & Ellerbrock, 2012; Midgley, 2014). The three processes, organizational, social, and instructional, have a direct influence on adolescents in the school structure (Eccles,

2004). The basis of the research for this study focuses at the classroom level to establish the best instructional fit in accordance to the stage-environment fit theory.

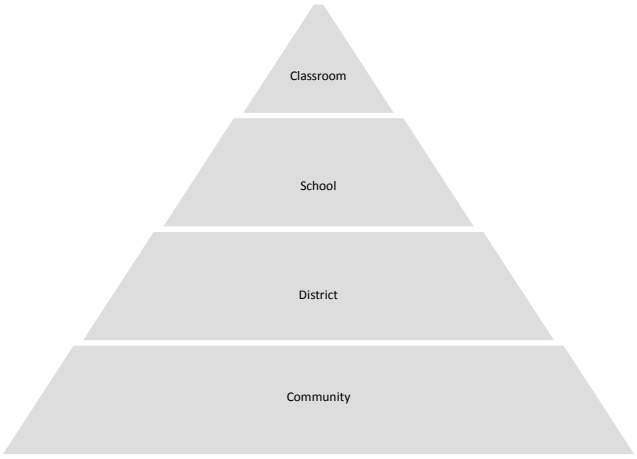

Figure 3. A hierarchical presentation of environments. *Adapted from:* Roeser & Eccles, 1998.

The stage-environment fit theory is a variation of the standard person-environment fit (P-E fit) model which was introduced in the beginning of the twenty-first century with a paradigm devoted to vocational selection (Su, Murdock, & Rounds, 2015). The P-E fit theory is associated with how people fit into and create their work environment, interrelated to their individual traits, which produce consequences related to work satisfaction and performance. The stage-environment fit theory is an adaptation of the P-E fit theory that provides an explanation for the decline of adolescent engagement in the school environment (Eccles et al., 2013). The adverse psychological and behavioral fluctuations associated with young adolescent development results from a mismatch of the needs of developing youth and the opportunities provided them by their social surroundings (Eccles et al., 1996). The stage-environment fit theoretical framework provides a lens for the research on student developmental needs in the context of the school environment (see Figure 4).

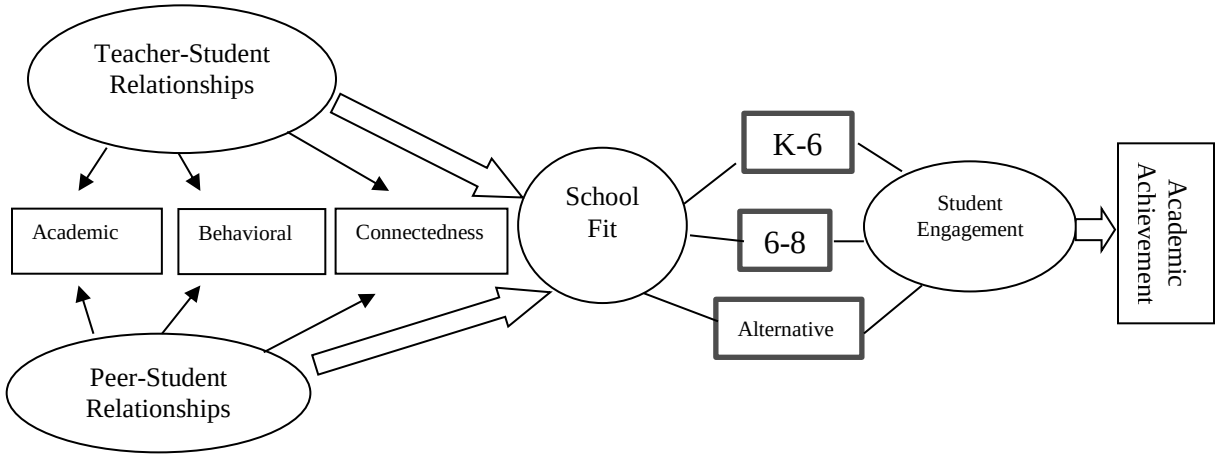

Figure 4. Theoretical framework in relationship to school configurations. *Adapted from:* Eccles et al., 1993a; Zimmer-Gembeck et al., 2006. Stage-environment fit theory flow chart showing the intra-relationship of academics, behavior, and connectedness within three school environments, which result in student interactions in school that relate to success in school.

Buehler et al. (2015) investigated the first semester of sixth grade students in middle school, framed by the stage-environment fit theory, to examine the changes from primary to middle school (Eccles, et al., 1993a). The stage-environment fit theory stresses the relationship of the adolescent with a developmentally appropriate environment to meet their needs. Characteristics negatively influencing the environment including insufficient teacher support and a student's lack of self-confidence. In accordance with Buehler et al. (2015), the stage-environment fit theory found that students enjoy and connect to their school if the environment possessed a positive learning environment, support from teachers, and safety. Students' beliefs differ on the benefits of the school environment based on gender, race, and academic abilities. Adolescents who historically struggle in academics benefit significantly more from a supportive learning environment, including structured curriculums and classrooms, and teacher trainings to increase positive learning environments (Kiefer & Ellerbrock, 2012).

Previous studies differ from Buehler's et al. (2015) finding of Hispanic students not gaining benefits from positive educational climate and support, along with caring relationships

with teachers, unlike populations of other ethnicities, who did show positive correlations (Schneider & Duran, 2010). Wentzel, Baker, and Russell (2012) found the impact of peer relationships on Hispanic youth as a determining factor related to a student's academic success, more than relationships with teachers and family. The study's conclusions on the move of students from elementary to middle school were consistent with the findings that students who perceive their schools as supportively meeting their developmental needs would be guaranteed success in academics and social connections (Blum, 2005; Buehler et al., 2015; Voelkl, 1995).

The creation of a responsive environment to the needs of adolescents in accordance to the stage-environment fit theory finds that the structure of a middle school utilizing collaborative teaming and scheduling promotes a responsive school environment (Ellerbrock & Kiefer, 2013). Conversely, the unstructured components of middle school, such as lunch and busing, did not promote a positive school environment due to issues with negative peer interactions such as gossiping, teasing, and fighting (Ellerbrock & Kiefer, 2012; Roeser & Eccles, 1998). Unlike their older high school counterparts, who thrive on less structure and more autonomy, middle school students find comfort in the structure and limits in the school environment, which when not in place, leads to depression and negative school experiences (Ellerbrock & Kiefer, 2012; Gutman & Eccles, 2007). The environment that suits students' developmental needs in the framework of the stage-environment fit theory supports teacher teaming, versatile scheduling, homeroom, and a common planning time to benefit the creation of a caring and fun community (Kiefer & Ellerbrock, 2012). A fun community was defined by Kiefer and Ellerbrock (2012) as an environment that could be serious, yet playful, to meet the needs of young adolescents in a caring, developmentally appropriate environment.

Conclusion

Creating a nurturing and caring environment to meet at-risk students' individual academic and developmental needs is crucial for the advancement of these adolescents into a society where they can be successful, independent, and not just another statistic (Buehler et al., 2015). A number of transition studies for adolescents were reviewed, which pointed out the significant role that school environments have on a student's social, academic, and emotional well-being (Byrnes & Ruby, 2007; Waters et al., 2010). Using the stage-environment fit theory as the lens, the research investigated the developmental needs of at-risk students in relation to the ever-changing school configurations (Eccles et al., 1993a). Research has isolated variables in search of solutions to address the academic failure of marginalized subpopulations (Schneider & Duran, 2010). With this targeted information, this study took the research further by addressing the at-risk subpopulation and defining the variables that affected students' academic and social success in the sixth grade. Chapter 3 will report methodology and research design to attain this goal.

Chapter III

Design and Methodology

Introduction

The purpose of this study was to examine the relationship between student achievement, behavior, and school connectedness in three different school configurations for sixth grade students who are identified with at-risk factors. The researcher sought to apply the stage-environment fit theory to investigate the best match of school environments on young adolescents when developmental changes occur. The crux of this study was to investigate school environmental factors that bolstered connectedness and academics in at-risk sixth grade students in three school structures. To create propositions, the research relied on adolescent development in the transitions through different school arrangements and the perception of these environments based on the sense of school connectedness, which addresses factors from the stage-environment fit theory. To meet this goal, the study determined evidence of school connectedness to justify environmental fit to the best school configuration for sixth grade, at-risk students using qualitative and quantitative research methods.

School configuration was a key factor in this study to quantify the existence of a relationship between a student's sense of connectedness and academic achievement. If school structures, in association with grade levels, were not related to the success of at-risk students academically and emotionally, then the two school configurations, kindergarten through eighth grade and middle school, would produce similar student outcomes (Byrnes & Ruby, 2007). Alternative middle schools were different in comparison to the other structures in class size, school size, and programs, along with student population (Foley & Pang, 2006). Results that

reflected positive outcomes for an alternative middle school would be due to class size, school size, and alternate programs that promoted school connectedness and belonging factors.

The study utilized three different school models at seven different schools as the independent variables with their intervening variables being the programs, grade configurations, and teaching structures. A mixed methods design was built on earlier research of school connectedness that relied primarily on qualitative methods (Cuban, 2013; Dove & Pearson, 2010; Juvonen et al., 2004). This study synthesized methods from school configuration studies in education that were predominantly quantitative (Ellerbrock & Kiefer, 2012; Gutman & Eccles, 2007). The grouping of different processes for data collection and analysis provided strength and insightfulness to the study (Caracelli & Greene, 1997; Creswell, 2017). The quantitative methods determined the students' academic and behavioral success using GPAs, attendance, and office discipline referrals (ODRs) to quantify best-fit according to school configurations. The qualitative investigation further deepened and clarified the connectedness data from the quantitative analysis to provide a holistic understanding of the phenomenon (Caracelli & Greene, 1997; Creswell, 2017; Ellerbrock & Kiefer, 2012; Marshall & Rossman, 2016).

The study focused on the configurations and environmental elements of schools connected hypothetically and practically to the developmental needs of at-risk students. The school variables in the research included: school size, classroom artifacts, school handbooks, teacher lesson plans, and schools' discipline policies. The grade constructs of the schools, in relation to appropriate developmental needs of young adolescents from the perspective of the stage-environment fit theory, were analyzed using basic associations between assessments of school connectedness and school environment. Additionally, the results were tested using

structural equation modeling (SEM) for associations between environment and student needs (Bryne, 2001).

To maintain an individual lens for each structure, this study fused the above data by using an analysis of variance and convergent parallel design. The data represented three distinct school configurations, and of the seven total sites, like site data were combined to represent their respective configuration. The convergent parallel design compiled and analyzed data of each configuration separately, according to quantitative and qualitative methods, prior to integrating and merging data to create an overarching perspective (Creswell, 2017).

The researcher compared student achievement in three different school structures: kindergarten through sixth grade school (elementary), sixth through eighth grade school (middle school), and an alternative middle school containing grades six through eight. The relationship of the academic scores was compared to a student's sense of connectedness through a Likert-scaled survey, attendance, and focus group interviews. Lastly, this study explored the effect of behavior referrals and absenteeism to a student's success in the three different school configurations. The study's significance in these components was framed using the stage-environment fit theory by considering an adolescent's environment in relation to their psychological development (Eccles & Midgley, 1989). A triangulation of quantitative and qualitative methods provided the researcher with a better understanding of the research problem and provided confirmation for the combined data (Creswell, 2017). This synthesis of methods can be found throughout this study, in its design, collection of data, analysis, and final presentation. This study examined the following questions:

1. Do at-risk sixth grade students experience more academic success in reading in elementary schools, middle schools, or alternative schools?

2. Do at-risk sixth grade students experience more academic success in math in elementary schools, middle schools, or alternative schools?
3. Are sixth grade at-risk students' social and emotional needs met through greater school connectedness, in the elementary schools, middle schools, or alternative schools?
4. Is there a difference in the behavior of at-risk sixth grade students enrolled at elementary schools, middle schools, or alternative schools based on ODRs, suspensions, expulsions, and attendance?

The study's robustness scaffolded upon multiple areas of single-focused research, including transitions, configurations, at-risk populations, and connectedness (Dove & Pearson, 2010; Finn & Rock, 1997; Libbey, 2004). General population students have been heavily researched to determine the most advantageous configurations. This study enhances the past research by uniquely using qualitative measures to encourage school districts to make configuration changes to meet the needs of at-risk adolescents (Karcher, 2001; Klump, 2006). With the emergence of alternative middle school programs, there has been a need for targeted research for this increasing subpopulation of at-risk students (Klump, 2006).

Research Design

For this research design, a mixed methods approach was selected, which necessitated collecting and analyzing both qualitative and quantitative information within the constraints of the study. The research design of mixed methods was an approach that afforded the benefits of triangulation, which is the capacity to compare data sources alongside one another to evade bias (Creswell, 2017). The mixed methods approach was selected because it permitted the researcher to determine whether a relationship existed between the independent variable of three school configurations and the dependent variables of school connectedness, academic success, and

behavioral appropriateness. Furthermore, prior research examining school connectedness relied predominately on quantitative studies (Battistich & Hom, 1997; Goodenow, 1993).

A quasi-experiential design using surveys, interviews, and data for comparison, with a statistical juxtaposition of ODRs, attendance, and academic grades in reading and math across the three school structures, was implemented for this study (Bowllan, 2011; Cook et al., 2007; Gordon et al., 2013). Data collection from the three components (academic, social, and behavioral) were triangulated to provide a report that was accurate and credible (Creswell, 2017). The researcher followed the Human Research Review Committee (HRRC) safeguards to meet ethical procedures throughout the research (see Appendix A). The convergent design of the study, as demonstrated in Figure 5, provided a more complete understanding of the results by merging the results to provide generalizability in the three components (Creswell, 2017).

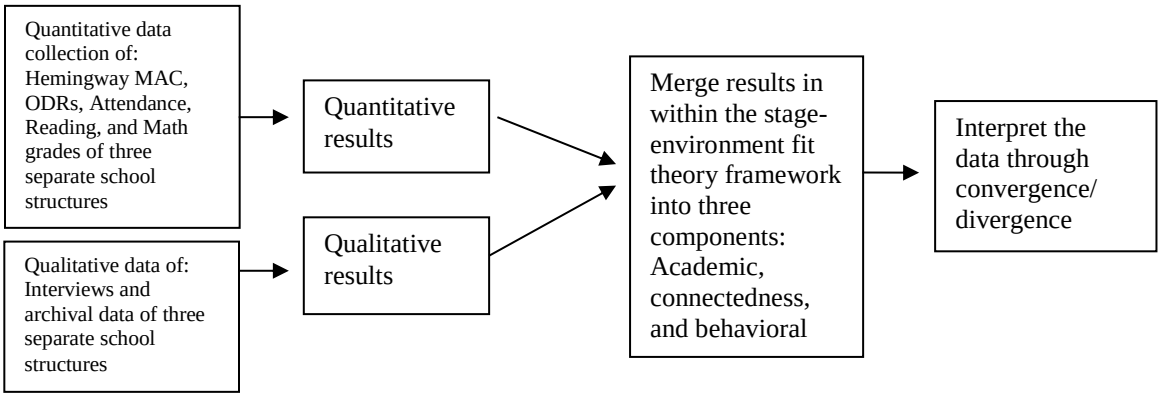

Figure 5. Convergent parallel mixed methods design. The mixed method design to collect and analyze the data following the convergent parallel design. Adapted from "Educational Research," by J. Creswell, 2017.

Group comparisons were conducted among the three types of school settings and related to the sixth-grade populations of seven schools, in four different districts in three states of the northwest (Gut & McLaughlin, 2012; Hannon, 2013). The at-risk criteria from the three states and the common identifying descriptors are shown in Figure 6. The traditional school settings

did not have students labeled as at-risk according to state criteria, since reporting of the sub-population within districts was not necessary, except for identification for placement into non-traditional alternative schools. To identify students for the population of the study, the researcher did a comparison of criteria from the three states and identified the common at-risk identifiers. To purposefully sample at-risk students from the elementary and middle school configurations, the researcher qualified students according to common identifiers. States have been using at-risk characteristics that were immeasurable and vague, such as perceived substance abuse or at-risk of dropping out (Porowski et al, 2014). Due to the ambiguity of the qualifiers from the states, the researcher used prior research to target a measurable attribute (Freeman et al, 2015; Schwerdt & West, 2012). School site administration was provided a checklist to qualify the students based on a combination of absenteeism, failing grades, substance abuse, social/emotional needs, and discipline referrals (see Appendix B). At-risk student samples from the two alternative middle schools were identified fully by their individual state's requirements. All participants of the study possessed two of the minimal qualifiers listed in Figure 6.

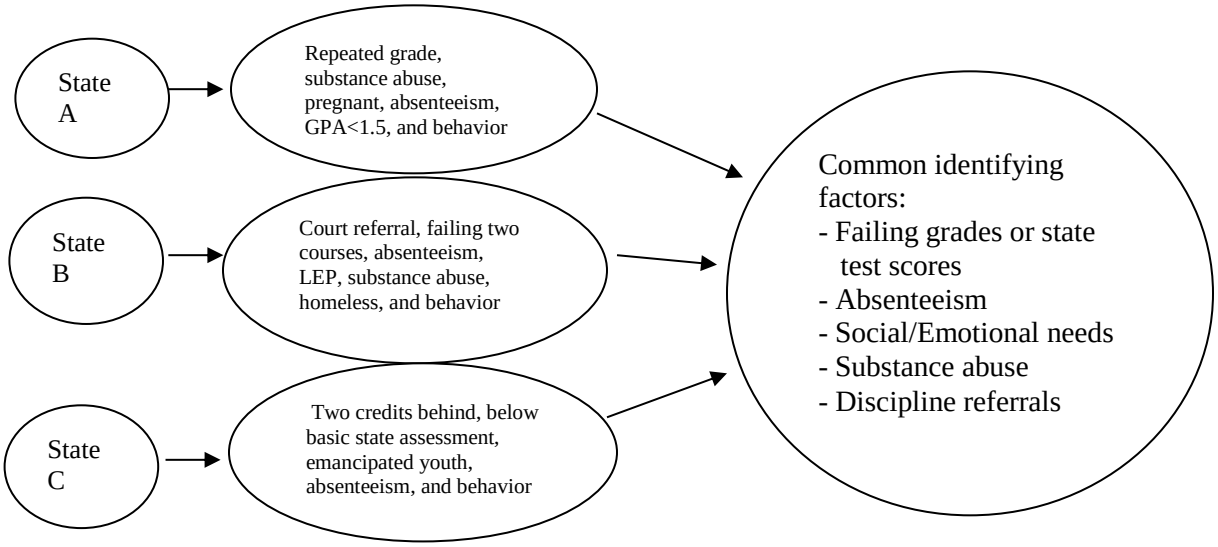

Figure 6. The comparison of individual states' identification criteria for at-risk students to provide an alternative education and funding for the purposes of this study. Common identifiers were used in the sampling of students in traditional school settings.

Instruments

Quantitative research design. This study fused quantitative research's statistical nature with qualitative research's socialization nature to provide in-depth knowledge of at-risk students and their need for school connectedness. The dependent, quantitative variables for the study were student reading and math grades, attendance, and ODRs, with teacher lesson plans and school discipline policies as secondary resources. Previous research had based the success rate of student connectedness solely on these quantitative indicators (Gordon et al., 2013; Waters et al., 2010). For this purpose, the Hemingway: Measure of Adolescent Connectedness (MAC): Version 5 was selected to fulfill the need for connectedness evidence in addition to school databases. The Hemingway MAC was created to measure youths' perceptions of their connectedness in four domains: self, family, school, and friends (see Appendix C) (Karcher, 2001; Karcher, 2005). This survey was comprised of 10 ecological subscales that included connectedness to neighborhood, connectedness to school, connectedness to friends,

connectedness to parents, connectedness to siblings, connectedness to peers, connectedness to teachers, connectedness to reading, self-in-the-present, and self-in-the-future. The researcher found the Hemingway MAC to be a reliable predictor of adolescent connectedness, which provided a useful lens to study adolescent development and problematic behavior (Karcher, 2001). Permission to use the survey questions was obtained from the researcher (see Appendix D).

Research found that connectedness is a culmination of concepts including: belonging, relatedness, connection, orthodox versus unorthodox social involvement, and prosocial versus antisocial relationships (Goodenow, 1993; Karcher, 2001; Osterman, 2000; Waters et al., 2010). Five studies were conducted to test the following hypotheses:

- Adolescent connectedness is context- and age-specific.
- Connectedness reflects a need to belong.
- Connectedness is shaped by conventions.
- Connectedness has gender differences.

Hemingway MAC creator, Karcher (2001), reported the results from prior studies, with exploratory and confirmatory factor analyses, supported that the ten subscales validated reasonable inter-item and test-retest reliability and convergent validity across examples (Gordon et al., 2013; Karcher & Herrera, 2007). The strongest validity was found with the measures of family connectedness, school connectedness, self-esteem, and future orientation. As a result of previous research, the current study used three subscales measuring connectedness to teachers, school, and friends, which encompassed 18 questions to complete a composite for school connectedness. The three subscales are defined as:

- School (6 items). This scale questioned how students felt about their school. It focused on their success, how hard they worked, how active they were, and how much they cared about school.
- Peers (6 items). This scale measured the feelings between students and their peers, including how much they enjoyed collaborative work with peers.
- Teachers (6 items). This scale focussed on a student's relationship with their teachers and their degree of enjoyment with their teachers.

The Likert-type response scale ranged from 1, being not at all true, to 5, being very true. Research revealed that middle school students responded more reliably to a Likert 5-point scale than to a yes-no format (Brand et al., 2003). Additionally, this scale included both positively and negatively worded items to provide reliability (Croasmun & Ostrom, 2011).

The questionnaire development rested soundly in former research, including same age population samples (Gordon et al., 2013; Karcher, 2001). To support previous validations, the survey was piloted with four students, who met the same criteria set forth for the study. The pilot population of at-risk students took the survey in an advisory class to mimic the protocol for the formal research sites being administered by the researcher. The three formats included: paper-pencil group administration, online format administration, and paper pencil group format with administrator-read test items. Each format had its own protocol (see Appendix E). The piloted survey administration was followed with a focus group of students to validate the understanding of the survey questions and administration formats. Four at-risk summer school students were asked questions regarding to the administration techniques and the clarity of the questions. Pilot results found paper-pencil administration with questions read orally by the researcher was the most positively viewed and understandable format.

Student quantitative data were collected, from district databases, on the identified students for each site for the first quarter of the 2017-18 school year. Student grades were reported after the first quarter to achieve comparable grades across the three states and four districts. One site used a four-point scale-grading model, which was translated into percentages to align with the other five site's grading practices (Dickinson & Adelson, 2015).

Qualitative research design. The qualitative research included two sources: focus groups and archival resources. The primary source of the qualitative design was led by earlier research on connectedness using quantitative information from the Hemingway MAC. The design of the focus interviews was based on previous investigations, which measured the responsiveness of middle school students to best educational fit of their school environment (Garza et al., 2013; Kiefer & Ellerbrock, 2012). Dr. Cheryl Ellerbrock, a researcher from a previous study using focus groups, was contacted to provide input on interview questions for the focus groups (see Appendices F and G) (Keifer & Ellerbrock, 2012).

The researcher ran a pilot, with a student focus group in coordination with the pilot survey. The focus group was conducted by the researcher to refine the process and confirm clarity of questions. The researcher found one initial question was unclear to the participants referring to their perception. The interview lasted 20 minutes with probing questions to elicit more detail. The final protocol for the focus group was based on the results of the pilots with deletion of the confusing question (see Appendix H). The interview questions were designed to delve deeper into the social experiences, which were grounded in the stage-environment fit theory (Kiefer & Ellerbrock, 2012).

Participants

Site selection was determined by limitations in past research that had restricted geographic range (Hough, 2004). The majority of the middle school research had been conducted independently by schools and school districts, which revealed limitations in the results due to reduced population of participants, sites, and specialization of programs, (Akos, 2002; Buehler et al., 2015; Ellerbrock & Kiefer, 2012; Garza et al., 2013; Klem & Connell, 2004). Participants for this study were sixth grade students from schools in the Northwest, which were configured as either an elementary school, middle school, or alternative middle school, to provide a larger geographical range beyond the researcher's own location (Creswell, 2017). The research was conducted during the 2017-2018 school year for the target population of sixth grade students who met at-risk criteria common among the three state sampling sites. A purposeful, proportional stratification sampling approach was used to help ensure an information-rich study and to address the inequitable number of at-risk students according to gender and ethnicity (Goodenow, 1993). Participants from each configuration, resulting in $N = 109$ sixth grade students, were the dependent variable in the study to meet research design recommendations for a statistically ample population and remain realistic given the duration of the research (Creswell, 2017). Thirty-three student participants from two middle schools, 30 students from two alternative schools, with 46 students from three elementary configurations were sampled to provide diversity among the elementary sites. The seven schools in the study were from four different school districts in three Northwest states. The four districts were rural to small suburban cities with populations of < 80,000. The total number of students in the four northwestern districts exceeded 50,000 students total, with a range of 2,300 to 38,000 students per district. All of the school sites were >50% free and reduced lunches, which indicates low

socioeconomic status (SES). School SES is based on the percentage of students at each school who are qualified for reduced-price or free lunch programs at school during the school year (Sirin, 2005). The demographics of the seven schools are listed in Table 7 according to a comparative demographic analysis based on individual state data.

Table 7

Comparative Demographic Analysis of Schools

School	District	Locale	School Population	Ethnicity % A/I/B/H/W/T	Low SES
Elementary School A	1	Town	407	.5/0/0/63/36/1	86%
Elementary School B	1	Town	406	.2/.2/.8/69/26/3	92%
Elementary School C	3	Suburb	325	2/6/4/21/60/7	63%
Middle School D	2	Rural	787	.1/.2/.2/37/59/.5	65%
Middle School E	2	Rural	906	.5/1//1/32/63/1	64%
Alternative School F	2	Rural	81	.5/.5/0/46/52/.5	78%
Alternative School G	4	Suburb	151	0/1/3/6/85/6	59%

Note. Ethnicity is reported as percentage with: A = American Indian; Alaskan; I = Asian, Pacific Islander; B = Black; H=Hispanic; W=White; T=Two or more races; SES = Socioeconomic Status. Adapted from https://nces.ed.gov

Purposeful sampling was used to obtain a group that was selected based on characteristics to meet the objective of the study and conform to the requirements within the qualitative research (Marshall & Rossman, 2016). The questions, goals, and purpose of the study were met through the qualitative sampling. Complete HRRC procedures were followed, according to university and individual district policies, along with signed approval letters (see Appendix I). In the late summer and early fall of 2017, each site administrator was provided administration and collection protocol from the researcher along with the collection of informed consents (see Appendix K).

Three participants from each individual configuration met the sample size recommendations for focus groups based on phenomenological studies (Creswell, 2017). Recommendation was made that the sample size not be too large to impede deep, case-orientated analysis (Johnson & Christensen, 2004; Krueger, 2000) Students were selected on a voluntary basis from a question on the survey, from a parental consent form, and verbal assent from the student volunteering for participation in the focus group. Selection from the agreeing students was determined by sampling to ensure a representative group from the population, to allow for equal gender and ethnicity representation (Kiefer & Ellerbrock, 2012). Due to the nature of the vulnerable population of at-risk students, site administrators participated in the selection of the focus group sampling to ensure safety, rights, and welfare of the participants. All guardians of the student participants in the survey and focus groups signed informed consent forms (see Appendix K). Students were read an informed assent procedure, and provided verbal agreement, along with written consent, prior to participation in the survey and focus groups. Pseudonyms were used in place of the actual students and teachers' names to ensure confidentiality (Creswell, 2017).

Data Collection

The superintendents of the four school districts granted approval of the study to be conducted in the fall and winter of 2017 through 2018 of the seven schools in the three Northwestern states. In the current study, focus group interviews served as the primary qualitative methods of data collection, with archival data providing secondary sources. For the quantitative data, reading and math grades, Hemingway MAC survey, ODRs, and attendance records served as the primary sources, along with discipline policies, classroom photographs, and teacher lesson plans as secondary sources. The methodology is grounded in the theoretical

perspective on school connectedness to gain a more comprehensive understanding of how various school configurations create caring communities for its sixth grade students (Battistich & Hom, 1997; Eccles et al., 1993a). The survey information was provided to guardians through a letter attached to the consent prior to the survey execution. The cover letter had a brief explanation of the study and an assurance that all responses would be completely confidential (see Appendix J). The paper-pencil Hemingway MAC survey was conducted for the entire sample at the seven school sites between November 2017 and January 20018 during a set school time dictated by the schools' administration. The survey administrator for one site that was not administered by the researcher had a signed confidentiality agreement collected in March 2017 to gain HRRC approval (see Appendix L). Test administration was conducted in classroom environments. Administration included a scripted protocol, with a verbal assent provided by students prior to the administration of the survey (Appendix E). The survey forms from the non-researcher administered site were sent to the researcher, along with a phone call to acquire any additional information to verify completion of the test administration. Three focus groups were conducted, one for each school configuration. Focus group protocols guided all the semi-structured interviews conducted by the researcher. The focus interviews lasted 13-22 minutes in length, and they took place in a private, empty classroom. All focus groups were audiotaped and completely transcribed by the researcher. The purpose of the student focus groups was to construct student insight and knowledge into the definition of connectedness and to provide robustness to the quantitative methods (Krueger, 2000). The students helped to refine and add inquiries from their view of what it meant to be connected to school.

Archival sampling was conducted during the same timeframe as the interviews and surveys. The administration gathered samples of teacher lesson plans and photographs of the

classroom environments from the rooms of the participants. To compare ODRs among the seven sites, school and district discipline reporting procedures were collected. The documents were used to compare pedagogical soundness and transparency to the readers across the seven school environments (Kiefer & Ellerbrock, 2012).

The quantitative aspect of the study consisted of reading and math grades, Hemingway MAC survey, attendance, and ODRs obtained by the district or state databases at the end of the first quarter of the 2017-18 school year. One middle school site utilized mastery-based grades, which were converted to a standard grade point average format based on the following 4-point assignment: A: 3.75 – 4.00, A-: 3.50 – 3.74, B+: 3.25 – 3.49, B: 3.00 – 3.24, B-: 2.75 – 2.99, C+: 2.50 – 2.74, C: 2.00 – 2.49, C-: 1.75 – 1.99, D+: 1.50 – 1.74, D: 1.25 – 1.49, D-: 1.00 – 1.24, F: 0.00 – 0.99 (Dickinson & Adelson, 2015). Grading practices across the seven schools were reviewed via school handbooks to provide consistent data for reading and math quarter grades. All seven schools permitted students to turn-in late assignments with minimal grade deductions. The seven sites allowed students to resubmit unsatisfactory formative and summative assignments to meet mastery of the targeted skill. Although grading is subjective, use of multiple indicators for skill mastery is perceived as a more accurate indicator of achievement rather than a singular assessment (Gronlund, 1998).

Analytical Methods

This study represented the stage-environment fit theory to analyze the nature of young adolescents' connectedness to school and achievement. Using the convergent parallel design as a method, the data were analyzed separately between quantitative and qualitative measures before converging in accordance with the theoretical framework (Creswell, 2017). Table 8

shows the research questions and the associated sources of information and data analysis and reporting methods.

Table 8

Relationship of Research Questions

Research Question	Associated Sources of information	Associated Data and Reporting Methods
Do at-risk sixth grade students experience more academic success in reading in elementary schools, middle schools, or alternative schools?	Grades for sixth grade first quarter of school year.	Analysis of variance (ANOVA)
Do at-risk sixth grade students experience more academic success in math in elementary schools, middle schools, or alternative schools?	Grades for sixth grade first quarter of school year.	ANOVA
Are sixth grade at-risk students' social and emotional needs met more positively by having greater school connectedness in the elementary schools, middle schools, or in alternative schools?	School connectedness survey and attendance merged with qualitative results from focus group interviews and archival data.	Multivariate analysis of variance (MANOVA) for continuous data and Hatch's analysis organized into domains and an overarching theme.
Is there a difference in the behavior of at-risk sixth grade students enrolled at elementary schools, middle schools, or alternative schools based on discipline referrals (ODRs), suspensions, and expulsions?	ODRs, attendance data, and archival data	Qualitative data organized into domains to compare between school configurations, isolating suspensions and expulsions from the ODRs and attendance data to compare differences using MANOVA.

To determine if significant differences occurred in the three configurations, the ANOVA procedure was used to assess student achievement as represented through quarter grades in reading and math. The MANOVA procedure was used to assess the effects on social-emotional needs and behavior among the three configurations. Achievement was represented through first quarter grades in reading and math. Social-emotional indicators were the school connectedness survey, attendance, and ODRs. Furthermore, the ODRs were organized into broad categories to compare between school configurations. Out-of-school suspensions were isolated from the ODR database and were analyzed to provide quantitative support to school connectedness factors.

This study applied Hatch's (2002) inductive approach to its qualitative analysis through the process of observing for patterns in data and creating general statements that lead to a phenomenon. Hatch's method of inductive analysis was selected because of its ability to construct knowledge and meaning from participant's experiences and allows stories to develop from the data. Inductive analysis permits the existence of multiple sources of data. The qualitative analysis of the focus group interviews, supported by archival documents, followed five steps of Hatch's (2002) inductive approach including:

1. Reading and rereading of interviews
2. Separation of parts into "frame of analysis"
3. Independent coding of data
4. Creation of domains (categories)
5. Domain sheet with manuscript excerpts

The researcher analyzed the interview data prior to quantitative analysis to diminish any bias interpretations that may occur from survey results. Multiple reviewers of the transcripts and archival data were conducted to provide a within method triangulation to ensure internal

reliability and trustworthiness (Jick, 1979). Responses to the survey were collected and scored using the greater feeling of school connectedness as the higher score. The outcome variable, school connectedness, was synthesized with the domains that emerged as major themes from the focus groups in support of school connectedness. A master domain sheet was created, with excerpts from the transcription of the focus groups that supported the categories (see Appendix M).

The archival data was devoid of identifying factors prior to being sent to the researcher for coding. A coding rubric for teachers' lesson plans identified key factors including student engagement, relevance to the real world, and activities (see Appendix N). Photos of the classroom environment were assessed by organization of the room, student display of work, posting of classroom expectations, and general feeling of the space from the archival artifacts.

Archival, survey, and focus group data were synthesized using a "with-in" method of triangulation, which involved crosschecking for internal consistency, or reliability, to gain strong evidence for the qualitative method (Jick, 1979). The researcher sorted the domains related to school connectedness in the various grade configurations (see Appendix O). Additionally, some overall themes emerged related to the particular features of the various school configurations and their reinforcement of academic success.

After developing themes from the data, the qualitative research began to form interpretations. All the themes and domains of the quantitative data from the MAC were connected to the questions directly, and they connected the formulated themes by looking at descriptive statistics for the relevant items. The information was framed using the stage-environment fit theory to formulate distinctive outcomes in each school configuration. Within

the domains, the qualitative and quantitative data were then compared to the population tested to frame environmental factors that had positive correlations with academics and behavior.

ANOVA models were used to determine if those who had a sense of high connectedness to school obtained greater academic success. A mixed effect model was used to compare the three school configurations' sample populations. The researcher used analytical methods to examine academics and school configurations in relation to reading and math grades. Logistic regression models compared:

1. School configuration to reading and math grades
2. School configuration to rating of school connectedness
3. School connectedness to proficiency of reading and math

The researcher explicitly described the process of identifying participants, using purposeful sampling in detail, and followed a primary and secondary process of data collection grounded in the theoretical framework.

Limitations of the Study

The researcher of this study conducted the research in a logical and organized fashion to provide the readers of the research with a reliable and valid research report. Regardless of all the precautions implemented, it was inevitable that several limitations existed that could not be changed. A substantial credibility issue was the researcher's own bias as an administrator of an alternative middle school and a proponent of kindergarten through sixth grade configurations. The researcher supported the view that students required a sense of connectedness to be successful academically and socially in an environment that was nurturing. Although the researcher could not change their bias, the influence of the bias was mitigated in several ways. The researcher worked closely with the site administrators, who provided artifacts, identification

of at-risk population, and the selection of the focus group participants to diminish researcher bias. In addition, all research procedures were meticulously documented.

Another issue that occurred as a limitation was the varying methods of labeling at-risk students across Northwest states. The researcher took liberties at providing a common list of identifiers to provide continuity. Furthermore, schools have their own identity and culture, which could not be replicated in all settings of this study. Even though common core standards were adopted in the three states, curriculum and differing instructional methods could not be duplicated in each environment. Archival data was used to provide the reader with an understanding of the different environments and classroom cultures to construct transparency in the research. An additional factor for credibility of the study was the geographic limitations of the sites in regard to the rural and small, urban areas lacking generalizability compared to large, metropolitan areas. The characteristics of schools in northwestern, rural or small, urban settings might not necessarily reflect those of large metropolitan settings in other parts of the nation.

Furthermore, variations in grading practices were unavoidable due to the ambiguity of assigning grades to summative and formative performances of students. Also, the short timeframe of the grading period provided a sample of student performance that is limited. The researcher attempted to mitigate the inconsistency of teacher grading practices with a triangulation of methods (Jick, 1979). Archival findings through teacher lesson plans and student handbooks found, between sites, content and grading practices were similar and connected to common core standards adopted in the three states of this research. The use of multiple indicators for skill mastery is perceived as a more accurate indicator of achievement rather than a singular assessment (Gronlund, 1998). The subjectivity of grading practices and the relatively short grading period was a limitation within the study.

Finally, the researcher's role was collegial in nature to support the site administrators for the constructs of the study. It was made transparent the possible impact of the study and how it could affect districts in the structuring of schools. Due to the large area of the study, connections to staff and students was minimal.

Conclusion

Historically, school reform has been a slow-moving train, with policies and practices continuing on the same track with few deviations from the route. The old notion, that we have always done it that way, has not afforded the education system its due responsibility to provide a developmentally appropriate education to all students. School officials have been making decisions based on fiscal restraints, rather than recognizing what research has cited regarding the relation between school configuration, school connectedness, and student performance (Coladarci & Hancock, 2002; Dove & Pearson, 2010). Research presented in Chapter Three has shown the influential effects of programs and strategies to create an appropriate environmental fit for these marginalized students. The research was based on the collection of three intertwining data collection variables: academic, behavioral, and connectedness (Anderman, 2003; Bowers et al., 2013; Mann et al., 2014; McNeely et al., 2002). The outcomes of the quantitative and qualitative analysis of the three data collections are presented next, in Chapter Four.

Chapter IV

Results

Introduction

With the increase of marginalized students dropping-out of school and states implementing mandates to increase graduation rates, school districts are faced with the dilemma of how to keep students in school (Barton, 2005; D'Angelo & Zemanick, 2009; Lehr et al., 2009). The stage-fit environment theory supports the need for developmentally appropriate environments to meet the psychological needs of adolescents, especially ones who are more at-risk of academic failure (Blum, 2005; Buehler et al., 2015; Eccles, 2004; Kiefer & Ellerbrock, 2012). Districts must seek solutions to eradicate student failure and create schools that meet the needs of all students, including the ones of greatest risk of dropping out of school. The focus of this study was to determine to what extent differences in sixth grade students with at-risk indicators, based on reading and math grades, number of office discipline referrals (ODRs), and number of days absent, existed while attending three different school configurations. Table 9 contains descriptive statistics of quantitative data collected from site databases desegregated by individual schools. Additionally, this study, using focus interviews and the Hemingway MAC, was conducted to examine how school connectedness was affected by grade configurations of sixth grade students with at-risk factors. Archival data was used to provide a lens of the culture of each individual configuration to gain a robust understanding of the environments.

Table 9

Descriptive statistics of quantitative data of participants desegregated by individual sites

School Site		Reading Grades		Math Grades		Absences		ODRs	
	N	M	SD	M	SD	M	SD	M	SD
Elementary A	15	80.5	7.2	88.3	10.8	1.2	1.8	0.67	0.72
Elementary B	16	76.9	6.6	78.8	8.9	1.1	1.3	0.31	0.70
Elementary C	15	71.1	6.6	70.7	7.3	2.2	2.7	3.13	0.60
Middle School D	19	66.2	14.3	69.4	15.5	1.6	1.4	0.90	0.90
Middle School E	15	64.8	9.3	80.4	8.8	1.6	3.0	1.90	1.00
Alternative F	15	66.3	12.9	84.0	6.9	1.0	1.1	0.57	1.10
Alternative G	15	78.7	12.9	83.7	12.1	0.5	1.3	0.33	0.76

Note. N=109.

This chapter is organized with regard to the qualitative and quantitative results prior to merging the results into each individual research question based on school configurations using the convergent parallel design (Creswell, 2017). Student outcomes were analyzed for sixth grade students attending three K-6 elementary schools, two 6-8 middle schools, and two alternative 6-8 grade middle schools within the northwestern United States. The selection of schools for the study was based on the ability to match the three school configurations with demographically similar districts. It is worth noting that in terms of student populations in the three configurations, the alternative schools were smaller than the number of students served by the selected elementary and middle schools (Table 7).

Chapter 4 contains the results of the qualitative and quantitative analysis of data to address the four research questions used to guide the study. Qualitative data findings and analysis were conducted prior to gaining quantitative results to eliminate the potential of interpretation basis and falsely led domains from the analysis of the transcripts and to ensure confirmability solely on qualitative findings (Becker, Bryman & Ferguson, 2012; Smith, Sparkes

& Caddick, 2014). The purpose of using mixed methods is to increase one's understanding of the phenomenon of the study, not to search for justification (Onwuegbuzie & Daniel, 2002). Results from all sources were organized according to the individual configuration, aligned to the sources of information for each research question, and then merged using the convergent parallel design to answer each of the research questions in the analysis of this chapter (Creswell, 2017).

Participants

The sixth-grade students who participated in this study came from seven rural and suburban schools in three Northwest states. The schools within this study were comprised of two middle schools and two alternative schools, including sixth through eighth grade configurations, and three elementary schools, consisting of kindergarten through sixth grade configurations. The third elementary school was added due to a change in a site's configuration of students. Students were all identified as having a minimum of two of the at-risk identifiers prior to conducting the research (see Appendix B). The schools had similar demographic identities but individual values and beliefs in the way each school operated (Table 10). Descriptive statistics for the sample of participants and the results of the data analysis for each research question are included in Chapter 4.

Table 10

Participant demographics

		Gender		Ethnicity					
Configuration	N	Males	Females	White	Hispanic	African American	Asian	Native American	2 or more
Elementary School	46	25	21	15	26	0	0	2	3
Middle School	33	24	9	18	14	0	0	0	1
Alternative School	30	14	16	24	5	0	1	0	0

Qualitative Findings

Qualitative procedures relied primarily on semi-structured focus interviews conducted at the end of the first quarter of the school year with the subsample of nine students to examine school connectedness pertaining to school climate and relationships with teachers and peers (Kiefer & Ellerbrock, 2012). To gain an inclusive understanding of each configuration, the qualitative research incorporated archival data to obtain a comprehensive framework of data to converge with the quantitative results for research questions three and four.

While construct validity was gained for the survey used in this study, qualitative research does not permit for the same level of independence (Merriam, 2009). In an attempt to increase reliability and trustworthiness, the researcher triangulated the data obtained from the surveys and focus interviews, and compared and crosschecked data within school configurations prior to analysis between the three configurations (Creswell, 2017). In this study, the match between school configuration and school connectedness was triangulated with focus interviews, Hemingway MAC, ODRs, and attendance. According to Merriam (2009), obtaining reliable information from qualitative measures is inherently impossible but provides deeper and intimate information not gained by quantitative measures. The researcher has provided a validity construct supporting the study design that permitted replicable outcomes (Merriam, 2009). Each focus group transcript was read and reread to become as familiar as possible with the groups' conceptualizations and perspectives on school connectedness in each configuration. School archival documents, including lesson plans, classroom photos, handbooks, grading practices, school discipline plans, and field notes, were examined to search for evidence that supported or contradicted the groups' claims. To gain more confidence in the emergent domains, multiple

reviewers assisted with the themes through crosschecking of transcripts and archival data to ensure consistency, depth, and richness of emergent domains (Jick, 1979; Saldaña, 2015).

The qualitative portion of the study utilized Hatch's (2002) inductive approach to data analysis using a process of identifying patterns in data, in which general accounts regarding the phenomena were made. Inductive analysis was comprised of steps beginning with reading and rereading the qualitative findings, including archival documents, to obtain a deeper understanding of the data within generalized components, referred to as frames of analysis (Hatch, 2002). Analysis continued with an independent coding of data, formation of salient domains, and supportive excerpts associated with each domain.

Focus interview data. Semi-structured interview questions were intended to support research question three (RQ 3) and were aligned with the theoretical constructs that provide the framework of the study. The findings correspondingly addressed research question four (RQ 4) as a secondary resource to provide supportive information on school discipline culture and procedures. Furthermore, the interviews in conjunction with the survey questions were characteristic of the social-emotional and developmental needs documented in literature of young adolescents (Finn & Rock, 1997; Kiefer & Ellerbrock, 2012). The focus interview questions were:

- Tell me about a teacher that you may connect with.
- What is it about this teacher that helps build the connection between he/she and yourself?
- How do you think things might change as you move into high school?

Inductive analysis.

Step one. The transcripts from the three focus interviews were read and reread by the researcher to deduce rough parameters on how the data were to be analyzed. Frames of analysis

are levels of specificity from the constructs of the Hemingway MAC in which the data were examined. The researcher constructed the following frames of analysis or conceptual categories to help in the analysis of data (Hatch, 2002): (1) teacher qualities affecting student connectedness, (2) school environments creating a culture of care, and (3) peer interactions increasing a sense of connectedness. The frames provided a structure for what to include in the data set.

Step two. Individual school configuration transcripts were reread and examined; domains were established based on semantic relationships using the frames of analysis. Relationships in the data were organized by frames to represent categories of meanings. The following meanings were listed according to the three frames of analysis that transcended across the three configurations:

Teacher qualities affecting student connectedness:

- Kind teachers connect with students
- Personalized time with the teacher equates to connectedness
- Making connections with students is the result of having fun
- Private conversations lead to trust
- Yelling at students results in loss of relationship
- Not listening to students is a reason not to respect teachers
- Advocating for students creates a caring relationship

School environment creating a culture of care:

- Boundaries and limit-setting are characteristics of a safe school environment
- Changing classes allows for independence

Peer interactions increasing a sense of connectedness:

- Harmony among peers reduces anxiety

Several semantic relationships were found in the data including attribution, cause-effect, strict inclusion, and rationale. Among the frames of analysis, teacher qualities that affect student connectedness emerged as the most salient across the transcripts among the three configurations.

Step three. The researcher reanalyzed the data using input from collegial reviewers to provide confirmability of initial codes. Each reviewer examined a collection of instances within each emergent domain for patterns among these instances. The reviewers consulted with each other to establish final codes, which were used to support the final theoretically supported domains. The data were coded to provide a lens of relationship with other similar domains among the three distinct configurations (Table 11). The analysis constructed emergent ideas to form a singular semantic relationship of cause-effect, which led to narrowing the focus of the analysis and data reduction. Related terms according to the domains were coded within each configuration (see Appendix O). Unrelated terms were excluded.

Table 11

Domains in Relation to School Configurations within frames of analysis.

	Frame of analysis		
Domains	Teacher Qualities	School Environment	Peer Interactions
Elementary School	Supportive Activities for rewards Limit setting Advocates Caring Calm voice	Principal as disciplinary Play games	Playing with friends Getting into trouble
Middle School	Kind Personalized help Supportive	Autonomy through moving to classes Engaging activities	Sit with friends Friendly Fewer bullies than elementary
Alternative School	Personalized Supportive Relationship building Expectations set Fun Non instruction time Affirmations	Small environment Friendly Structured	Sit with friends Bullies in past elementary Conflict resolved by restorative measures

Step four. Interview transcripts were reread to refine salient domains with relationships within each configuration. Each term as it supports a domain was identified and coded within each school configuration. Deductive reasoning was employed to determine if sufficient data were found to support each domain. Each domain was examined to verify adequate evidence in the data to include the domain in the analysis. The researcher scrutinized the data for counterevidence to produce four salient domains from the previous coded terms. The emerging four domains were: personalized connections, supportive environments, engaging classrooms,

and structured expectations. Figure 7 provides a data display of the systematic comparison of the domains throughout the three configurations.

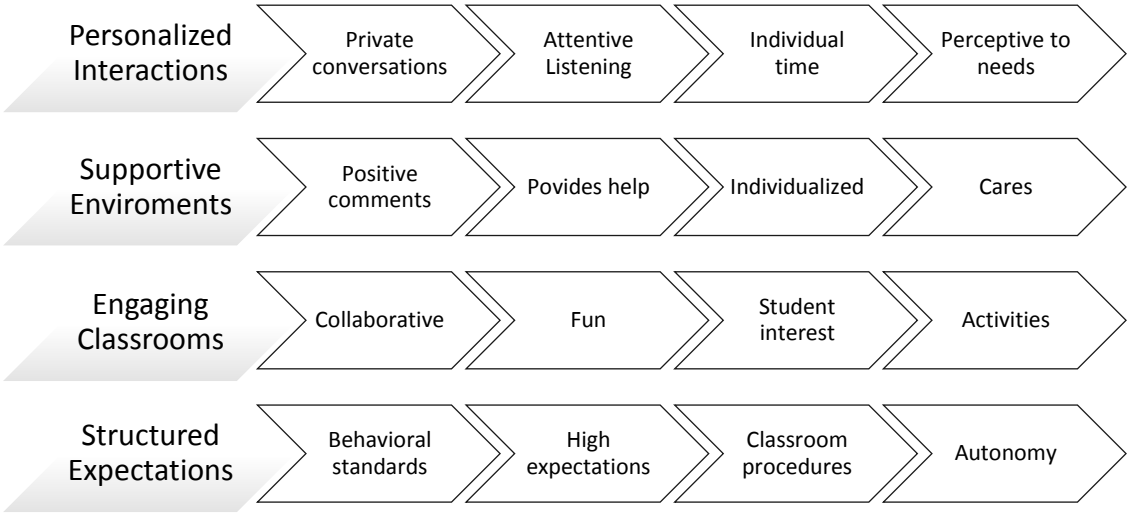

Figure 7. Salient domains from qualitative findings through confluence of three school configurations.

Step five. Finally, quotes from the data that supported the study's findings were highlighted to provide a humanistic factor to the results. This study scrutinized the impact of school connectedness in three separate environments within the education system. As the data were inspected within the four salient domains, there were several cohesions between the configurations pertaining to characteristics of teachers. On investigating the connectedness of students to their individual environments, it became evident that relationships with teachers were essential to the formation of a culture of care (Eccles et al., 2013; Midgley, 2014). The domains that emerged from the qualitative data showed there were semantic cause and effect relationships among students and teachers. Among the three focus interviews, the findings indicated that teacher characteristics were salient attributes of creating a sense of connectedness more than that of peers and school environment. Furthermore, students highlighted the shortcomings of their

previous schools and shared positive experiences of their current schools. The overarching domains of this study were evident with powerful, succinct quotes that provided evidence for each configuration according to interrelated terms.

Personalized connections. Students in all three configurations consistently reported that teachers who took time to help them and provided personalized assistance were essential to their feeling of positive connections to their school. Two middle school students stated, "Like if I have a bad grade, I'll ask her if she can help me at the end of the period and she helps me with my homework" and "she made me come in for lunch to help me…we ate in the classroom…it was nice." An alternative student stated, "She helps me cuz [*sic*] if there's a word I don't understand or, like, something that I need help with, I can just go to her and then she, like, helps me with it at any time and she's really easy to work with. She's a really good teacher."

The elementary students interviewed acknowledged that inappropriate behavior, when addressed privately, delivered a more responsive result as in this quote, "She is always honest with me; if I'm not doing something right she'll tell me. If it's something too bad, she would punish me or she would tell me what I was doing right or wrong." Teachers can help at-risk students thrive by having a nonjudgmental demeanor when students falter. Having the ability to create a culture of safety and comfort is essential for healthy development of adolescents, which provides them the opportunity for personal communication and to be heard (Eccles, 2004; Kiefer & Ellerbrock, 2012).

A personal relationship with a knowledgeable and caring teacher creates positive interactions and relationship building (Karcher & Herrera, 2007), as this elementary school student stated, "Mrs. Smith, she's nice, she listens to me…I just like her." Students who were

given time to be heard created a trusting relationship with teachers and shared their personal struggles, such as this alternative student revealed:

> I mean how Miss Jones helps me not academically is about my anxiety and stuff, she says, like, nobody will judge you and, like, you'll do great...I like how she lets me choose what the class is going to do next because she really trusts me and so it's really helpful to know that she can relate to some of the things I'm going through.

Teachers at the alternative school understood the unique social situations many students experienced by helping students to learn how to cope. Interactions could be as simple as a smile as reported by this middle school student, "If I'm having a bad day she'll cheer me up; she smiles." Other teachers promote relationships through sharing personal stories, as reported by this alternative student, "Sometimes she tells us stories about herself and some of us can relate…I related to it, we were just talking about something completely off topic." Although all three focus group interviews were quick to point out single teachers who cared for them in a personalized manner, only the alternative school participants had deeper conversations with their teachers that expanded beyond academics.

Supportive environment. The elementary and alternative configuration interviews found teachers who were supportive, created a caring and safe environment, "…he usually helps me because he notices I'm wheezing…he always reminds me to take my inhaler…" Teachers who possessed nurturing qualities and exhibited care towards their students provided support in their social emotional well-being (Wentzel et al., 2012). Teachers created connectedness through positive and respectful relationships, as evident in the comment from an alternative school student, "She won't yell at you, but will talk with you in a normal voice."

Elementary school students commented on teacher and administrative staff use of authoritarian or punitive measures for correcting student behaviors. There was a lack of providing the student a chance to voice their concern. An elementary student explained, "Some teachers I don't like because when I didn't do anything, they said I did something and I would get blamed...they would yell at me when I raise my hand to explain." Conversely, elementary school students reported that staff supported them when bullying incidents occurred, such as, "… if we reported something, like if someone was bullying somebody, she would talk to them. She would stand up for us when people were bullying other people she would say, 'Don't do that' or 'Leave that kid alone' or she would help others." Providing attention to students' stories were critical in the creation of a positive and safe school climate to meet the needs of at-risk sixth grade students (Eccles & Roeser, 2011; Wooley & Bowen, 2007).

Within the frame of a supportive environment, both middle school and alternative school participants reported they experienced more bullying behaviors in their previous elementary schools, "So, at my previous schools before here, there was a lot of bullies. Thank gosh none of them came here." In addition, an alternative student shared that her parents purposefully enrolled her at the alternative middle school because her brother had been successful, "He loved it."

Students in the alternative environment showed a caring perspective of regarding their teacher who was being treated with disrespect by a student. The construct of protecting a supportive teacher is evident in this conviction:

> They don't deserve kids yelling at them because they're trying to teach you [*sic*] life skills so that you could have a better life and a really good job. It's just incredibly disrespectful

> because they chose this job to help you and they like [*sic*] do all this for you and not for themselves.

Additionally, an environmental factor was raised with regard to the size of the school, where the middle school students did not see the large size of the school as an obstacle but a way to gain autonomy and have the freedom to walk to classes. However, students from the alternative school supported the Eccles et al. (1993b) stance on small schools demonstrating motivational factors for at-risk students by increasing teacher-to-student relationships, as stated in this quote, "It's just really easier here because there's not too many people like cuz [*sic*] the bigger environment really worries me". Another alternative student also commented, "So in this school I feel like it's just better to have a smaller school because…it's less classes which is like easier cuz [*sic*] you don't worry about what's the next class."

Engaging classrooms. The environment that meets students' developmental needs in the framework of the stage-environment fit theory supports the creation of a caring and fun community (Kiefer & Ellerbrock, 2012). Engaging classrooms need to meet the needs of young adolescents through interactive and enjoyable activities as described by this excerpt from an elementary school student,

> She was awesome, like, she was funny and always played games. If we did something (wrong), she would say, 'silent ball time' and she would say if we do [*sic*] good, we could have free time and go on the computers and play games … but then on Fridays we could go outside and have extra recess and play games.

Alternative students found environmental factors contributed to engaging classrooms, as one commented, "Mrs. Smith's class is full of a bunch of colors and superheroes which kind of wakes me up." Another attribute included instructional changes to engage students, as stated by

this alternative student, “The classes are dull and they just make you sit down and listen to a lecture or something … it helps when there’s a learning game called Kahoots.”

Within the focus interviews of the middle school students, no indication of classroom engagement was recorded, only comments on how teachers will individually meet with students to assist with schoolwork. A middle school student commented on engagement with peers during lunch, “If people see me sitting alone at lunch, they come sit next to me.” Disengagement of at-risk students from their school community has been designated as an indicator for potential student dropout (Wooley & Bowen, 2007).

Structured expectations. Many students spoke about the genuine caring nature of their teachers as they enforced strong and fair discipline to meet their need for behavior expectations and limit-setting. One elementary student responded when asked if he had any connections with teachers, “She is always honest with me. If I’m not doing something right, she’ll tell me. If it’s something too bad, she would punish me or she would tell me what I was doing right or wrong.” The alternative school participants spoke about how their Positive Behavioral Intervention Strategies (PBIS) were used to set expectations within the school. A student participant from the alternative school matter-of-factly remarked on the point system during the focus interview, “… she, like, just stops and she usually takes a point.”

According to Blum (2005), one of the most effective approaches for increasing the probability of student connectedness included classroom management skills to meet each student's needs. Clear and concise expectations that are fair and consistent create a culture that is reminiscent of the shared interviews.

Archival data. Archival data from each configuration were studied to provide evidence for student responses in the focus groups. Student handbooks, classroom photos, discipline

procedures, and teacher lesson plans were used as secondary resources for the qualitative analysis. The data were analyzed according to individual configurations and merged into the four frames of analysis for each collection (see Table 10). The collections were then converged upon the salient domains from the interviews for each school configuration. Photos of classrooms in the three configurations in the archival data reflected differences in each environment. More relational-type subject matter was included on the bulletin board in the alternative configuration. The elementary and middle school environments, however, displayed materials that were academic in nature (see Appendix N). In addition, photos of classroom layouts revealed alternative classrooms provided flexible seating and non-traditional student grouping whereas the elementary and middle schools had traditional seating arrangements, including rows of isolated desks facing towards the instructor. All three configurations offered seating arrangements that encouraged cooperative engagement with other students, whether it be round tables or the ability to move into groupings.

Furthermore, the photos created a depth of understanding regarding the culture of individual schools and classrooms. Appendix N provides codes for photos of school environments. The observations for each individual configuration were merged with the additional archival and interview findings to provide robust insight to the domains within each research question.

Student handbooks for all three configurations contained standardized protocols such as, attendance, grading system, and school calendar, as directed by each of the three districts. Disciplinary procedures for elementary and middle school configurations were included in the district-approved handbooks. The alternative middle school's disciplinary procedures were an addendum to their standard handbook. The alternative school's behavior expectations were

organized into a flowchart of levels that coincided with a matrix of behaviors categorized as preparedness, direction following, and respect. Each student recorded his or her individual behaviors in a color-coded point card that corresponded to the level at which each student achieved according to the matrix. The point cards, as seen in Figure 8, are connected to a school-wide reward system. The behavior expectation matrix follows PBIS established to create a comprehensive framework of positive and preventative practices, which is responsive to tier implementation to meet individual needs (Simonsen et al., 2011).

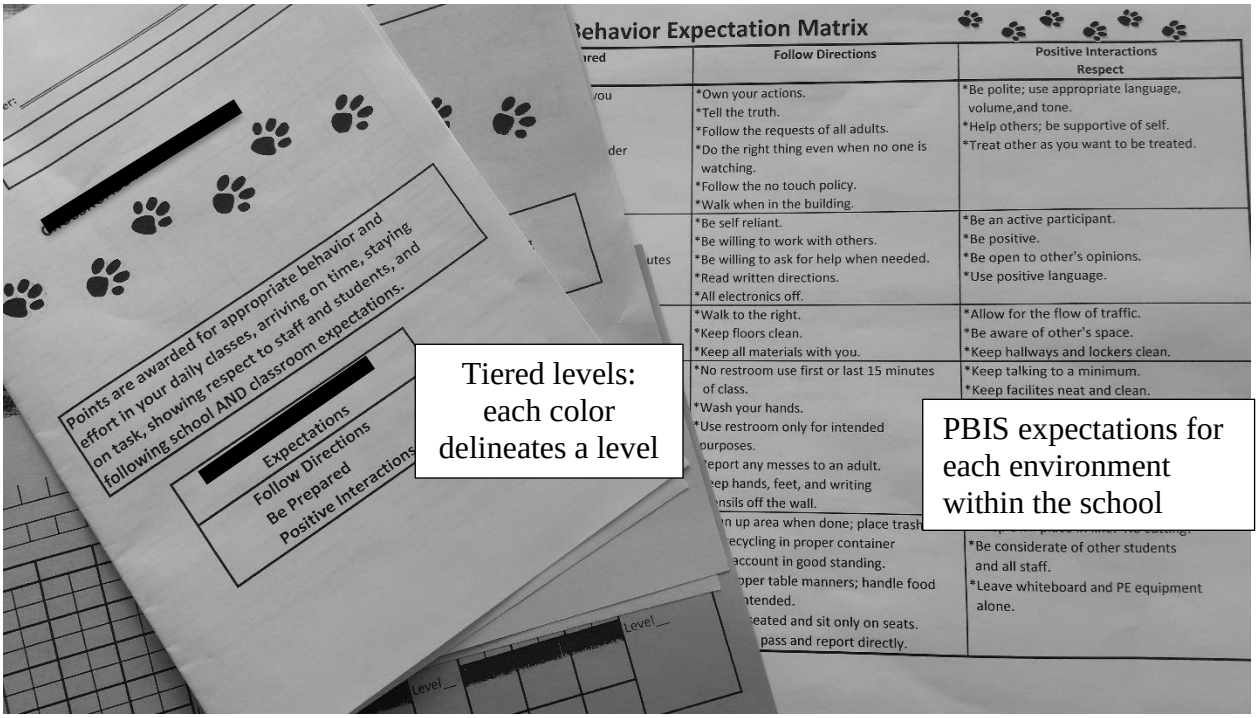

Figure 8. Photographic examples of positive behavioral intervention system for alternative school's behavior management program.

The sample of six different teacher lesson plans, two from each configuration for math and reading, were collected in a variety of formats. The lesson plans were reviewed in isolation of the other school configurations to gain an individual lens for each school. Several key themes surfaced from the initial review that were interrelated between the configurations. The common theme of lesson planning among the three sites exhibited strong correlation to state standards.

The elementary school site had a more rigid set schedule, using thematic units and textbook-based lessons; conversely, the middle and alternative schools afforded more autonomy in providing student groupings and collaborative learning strategies, with a focus on critical thinking. The alternative school's plans uniquely differentiated instruction with hands-on activities, frontloading of vocabulary, flexible grouping, and demonstrating key learning strategies, such as highlighting.

The key components of each set of lesson plans were organized into Table 12 following effective lesson planning components using research-based practices (Virginia Department of Education [VDE], 2014). The researcher focused on three elements that are essential to the motivation of at-risk students: lesson components, differentiation, and lesson delivery (Algozzine & Anderson, 2007; Tomlinson, 2014). The findings revealed the alternative school had more embedded pedagogies that met student diverse learning modalities through scaffolding (e.g., "I will model how to write their textual evidence"). Furthermore, the alternative school had lessons broken into five-to-fifteen minute mini-lessons to maintain student engagement. The data were used to create a within-test validity of the qualitative analysis among the archival evidence.

Table 12

Components of effective lesson planning of three school configurations according to key factors that meet needs of students who are at-risk

	Elementary School	Middle School	Alternative School
Lesson components	Relation to state standards Associated to textbook curriculum Thematic Warm-up	Use of guiding question related to student-friendly objective and standards Learning activities Identification of individual components Assessment	Use of "I can" statements for learning target Mini-lessons Assessment Instruction of classroom procedures Use of multimedia
Differentiation	Ability grouping 1:1 assistance Formative assessment	Use of multiple modalities Graphic organizers Formative assessment	Modeling Provide background knowledge Flexible grouping Formative assessment
Lesson Delivery	Structured blocks Direct instruction Small group reading	Motivating activities Expectations listed High student engagement	Give the reason "Why" a skill is taught Instructional sequence Expectations listed Direct instruction of prior knowledge

Note. *Adapted from* "Effective Lesson Planning Components," by Virginia Department of Education, 2014.

Convergence of qualitative data. To provide collective findings among the three configurations, the researcher found the salient domains from the interview transcripts to transcend across the secondary archival resources. The four domains personalized connections, supportive environments, engaging classrooms, and structured expectations, continued as supportive elements within the three configurations' documents. The researcher framed the results according to each research question separately to permit for convergence and divergence

of quantitative data later in the chapter. Eccles (2004) referred to the importance of teachers having positive beliefs about adolescents as well as creating supportive structures that meet student's developmental needs in caring environments, which was evident in the four domains that emerged from the focus interviews. To integrate findings from the qualitative research using the parallel convergent model, the researcher found connections among the domains with the quantitative subcategories of the connectedness survey to integrate into one overarching theme in semantic relationship of cause and effect where teacher's connections lead to caring relationships with students (see Figure 9).

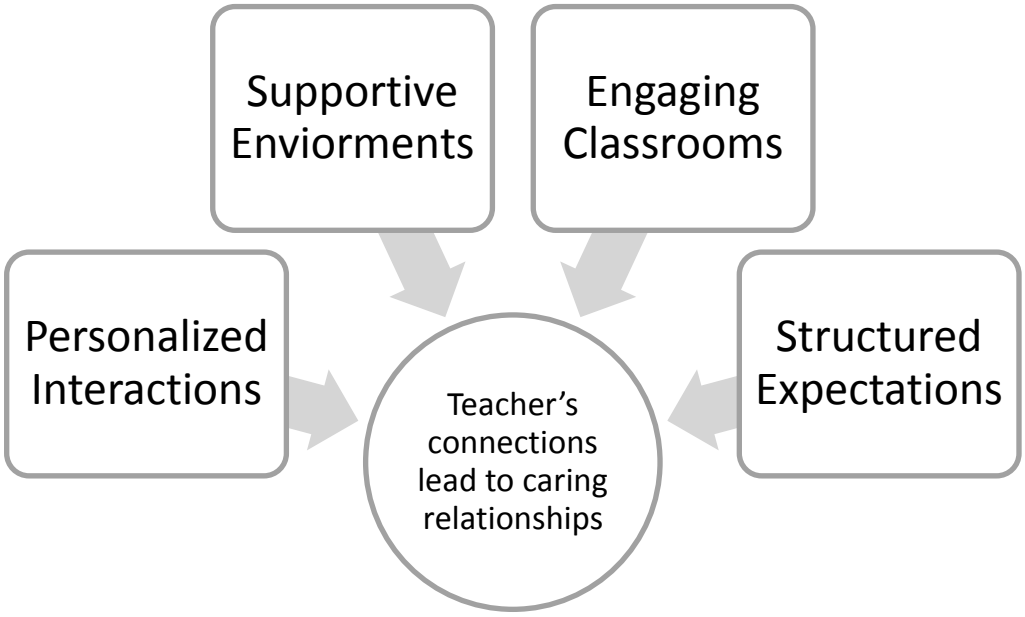

Figure 9. Connections across domains from a singular theme for inductive analysis.

The amalgamation of the data afforded a triangulated mixed method result for RQ3. To provide secondary qualitative information for RQ4, the researcher scrutinized findings from the interviews and archival data to contribute to the quantitative data. The following frame emerged from the collection and organization of findings according to domains, configuration, and

research question. Although the frame and domains are categorized by configuration, the commonalities traverse structures, as illustrated in Table 13.

Table 13

Convergence of Qualitative Data for RQ3 and RQ4

Configuration	RQ3 *Are sixth grade at-risk students' social and emotional needs met through greater school connectedness?*	RQ4 *Is there a difference in the behavior of at-risk 6th grade students based on discipline referrals (ODRs), suspensions, and expulsions?*
Theme	Teacher's connections lead to caring relationships with students	
Elementary School	Students respond to teachers who provide personalized support. Students connect with teachers who include activities.	Students respond to teachers who show respect. Elementary schools offer structure in daily routines and expectations.
Domains	Personalized connections Engaging classrooms	Structured expectations
Middle School	Students expressed a sense of belonging when a teacher looked out for their needs. Students feel supported by their peers.	Autonomy in school allowed students to have a sense of personal control.
Domains	Personalized connections Supportive environments	Personalized connections
Alternative School	Students had connections with teachers who cared for and supported them. Teachers focused on purposeful relationship building activities and culture.	Students had a stronger connection to teachers who provided positive rewards for behavior. Students respected teachers who did not yell, but spoke to students privately and listened to them.
Domains	Supportive environments Engaging classrooms	Structured expectations Personalized connections

The theme and domains illustrate cultures within each configuration. Although commonalities exist, there is a distinct story for each school structure, which provides a lens to interpret the confluence of qualitative and quantitative data in Chapter 5.

Quantitative Results

At-risk sixth grade students enrolled in public schools in three Northwest states reported Fall 2017 quarter grades. Reading and math grades are a formal assessment made by a variety of teachers within the seven schools and can manifest a variance. The adoption of common core standards in the three states minimizes the inconsistency of grades by measuring consistent outcomes. Grades were converted to a standard grade point average format for two of the sites who reported grades as a four-point scale (Dickenson & Adelson, 2016). Table 14 displays the total number of schools and the percentages in each of the three grade configurations in this study (N = 109).

Table 14

Descriptive Statistics for Grade Configurations

Configuration	No. of sites	*N*	%
Elementary School K-6	3	46	42.2
Middle School 6-8	2	33	30.3
Alternative School 6-8	2	30	27.5
Total	7	109	100.0

Initial descriptive analyses were conducted using SPSS 24, examining each variable in the study. All study constructs were aggregated from site data systems, with the exception of the Hemingway MAC survey of student connectedness. The first two research questions are solely quantitative in nature. This study was to determine the difference between sixth-grade student achievement in reading and math independently among the grade configuration of the school in

which students were enrolled using first quarter grades from the 2017-2018 school year. A one-way analysis of variance (ANOVA) was conducted to determine if statistically significant differences exist for reading and math grades for students in the sixth grade attending schools configured as elementary schools, middle schools, and alternative schools using SPSS statistics software. School configuration served as the independent variable; and scaled reading and math scores were considered separately as the dependent variables, and were independent of school configuration.

Research question 1. A one-way ANOVA was conducted using First Quarter reading grades of at-risk sixth grade students to answer RQ1: Do at-risk sixth grade students experience more academic success in reading in elementary schools, middle schools, or alternative schools? The research question examines the impact of school structures on reading academics for identified at-risk students. The assumption of homogeneity of variances was violated, as assessed by Levene's test for equality of variances (p = .003). A Welch ANOVA was selected over the classic ANOVA due to violation of homogeneity of variances (Laerd Statistics, 2015b). Students were enrolled in three groups: elementary school (n = 46), middle school (n = 33), and alternative school configurations (n = 30). There were no outliers in the data, as assessed by inspection of a boxplot (see Figure 10).

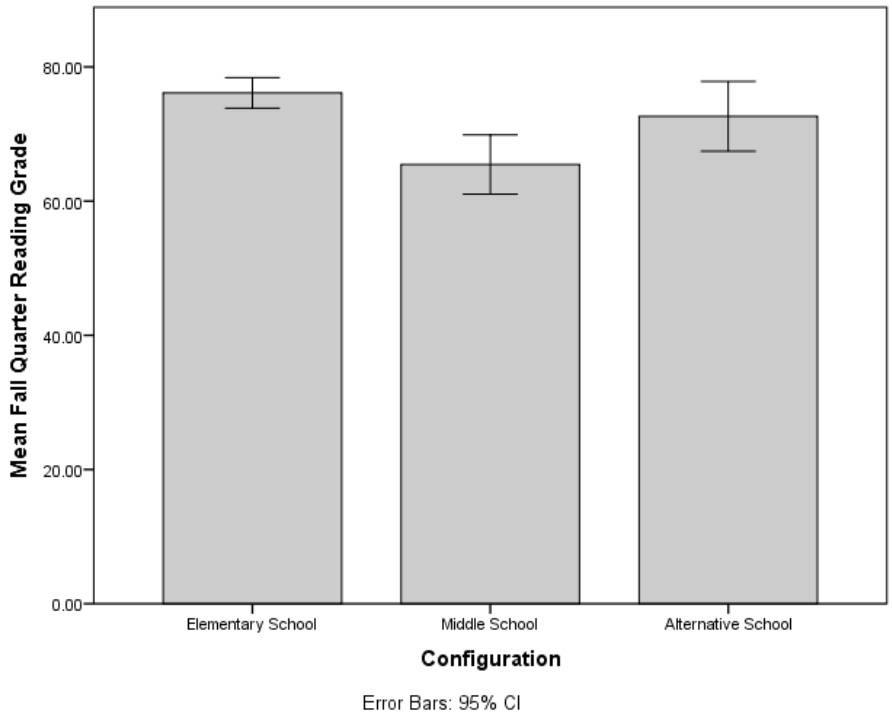

Figure 10. Simple bar mean of reading grades for school configurations with confidence intervals.

Reading grades were normally distributed for the three school configurations, as assessed by Shapiro-Wilk's test ($p > .05$). Reading grades were statistically significantly different for the three configurations, Welch's $F(2,54.634) = 9.482$, $p < .001$. Student reading grades differed from middle school ($n = 33$, $M = 65.5$, $SD = 12.5$), to alternative school ($n = 30$, $M = 72.6$, $SD = 13.9$) to elementary school ($n = 46$, $M = 76.1$, $SD = 7.7$) configurations, in that order. Games-Howell post hoc analysis revealed that the mean changed from middle school reading grades to elementary school reading grades (10.7, 95% CI [4.76, 16.59]), proving statistically significant ($p < .005$). There was a change in reading grades from middle school to alternative school configuration of 7.18, 95% CI [-0.9, 15.2], which was not statistically significant ($p = .089$). After preforming a simple contrast, due to having violated homogeneity, there was a statistically significant rise in reading grades from the middle school configuration ($M = 65.5$, $SD = 12.5$) to

the alternative school configuration (*M* = 72.6, *SD* = 13.9), a mean increase of 7.2 (SE = 3.3), p = .036 (Laerd Statistics, 2015b). Planned contrasts revealed reading grades were statistically significantly higher in the elementary school configuration (*M* = 76.1, *SD* = 7.7) compared to the middle school configuration (*M* = 65.5, *SD* = 12.5), a mean increase of 10.7 (*SE* = 2.4), *p* < .001. The configuration means were statistically significantly different (p < .05) between school configurations and student reading grades. Comparisons between study configurations are presented in Table 15.

Table 15

Comparisons between Configurations of Reading Grades.

	Tukey's HSD Comparisons
Configurations	*Middle School*
Elementary School	76.1**
Alternative School	72.6*

Note. *p < .05, **p < .001

Reading grades were a single score obtained from school records. Means, standard deviations and item counts were listed in Table 16.

Table 16

Reading Achievement SPSS One-Way ANOVA Test of Significance and Descriptive Statistics between School Configurations for RQ1

Variable	School Configuration	*M*	*SE*	*N*
School Configuration				
	Elementary School	76.1	7.69	46
	Middle School	65.5	12.47	33
	Alternative School	72.6	13.9	30

Note. Total *N* = 109. Students' reading grades were obtained from school records and could range from 0 – 100.

Research question two. A one-way ANOVA was conducted using First Quarter math grades of at-risk sixth grade students to answer RQ2: Do at-risk sixth grade students experience more academic success in math in elementary schools, middle schools, or alternative schools? Students were enrolled in three groups: elementary school (n = 46), middle school (n = 33), and alternative school configurations (n = 30). There were no outliers in the data, as assessed by inspection of a boxplot. Math grades were not normally distributed for the three school configurations, as assessed by Shapiro-Wilk's test ($p < .05$). There was homogeneity of variances as evaluated by Levene's test for equality of variances ($p = .175$). A Kruskal-Wallis H test was run to determine if there were differences in the math grades between the three configurations. Distributions of the math grades were not similar for all groups, as measured by visual inspection of the box plot (see Figure 11).

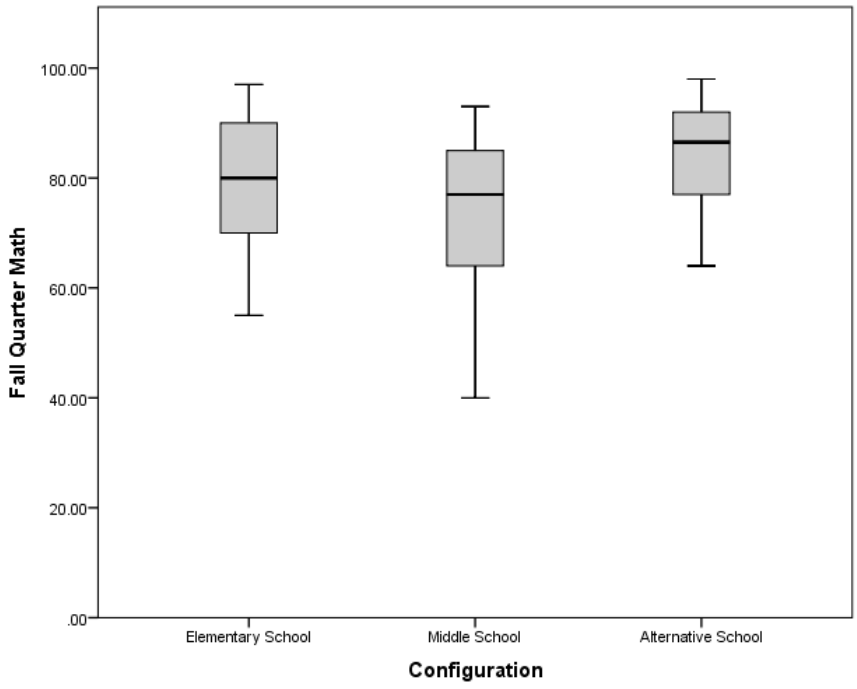

Figure 11. Distribution of math grades for school configurations with confidence intervals.

The distributions of the math grades were statistically significantly different between the groups, $x^2(2) = 10.429$, p = .005. Math grades were statistically significantly different for the configurations, Welch's $F(2,65.517) = 6.520$, $p = .003$. Subsequently, pairwise comparisons were performed using Dunn's (1964) procedure with a Bonferroni correction for multiple comparisons with statistical significance accepted at the p = .017 level. Adjusted *p*-values were present. This post hoc analysis revealed statistically significant differences in math grades between middle school (mean rank = 42.62) and alternative school (mean rank = 68.32) (p = .004) configurations but not between the elementary school (mean rank = 55.20) or any other configuration combination. Student math grades increased from middle school ($n = 33$, $M = 73.3$, $SD = 14.0$), to elementary school ($n = 46$, $M = 79.2$, $SD = 11.4$), to alternative school ($n = 30$, $M = 84.1$, $SD = 9.7$) configurations, in that order. Games-Howell post hoc analysis revealed that the mean increase from middle school math grades to alternative school math grades (10.80, 95% CI [3.56, 18.04]) was statistically significant ($p < .005$). There was an increase in math grades from elementary school to alternative school configurations of 4.92, 95% CI [-0.94, 10.77], and from middle school to elementary school configurations of 5.88, 95% CI [-1.23, 12.00], which were not statistically significant, respectively ($p = .117$) ($p = .124$). Means, standard deviations, and item counts are listed in Table 17.

Table 17

Math Achievement SPSS One-Way ANOVA Test of Significance and Descriptive Statistics between School Configurations for RQ2

Variable	Math Achievement	*M*	*SE*	*N*
School Configuration				
	Elementary School	79.2	2.44	46
	Middle School	73.3	2.96	33
	Alternative School	84.1	3.0	30

After preforming a simple contrast, there was a statistically significant increase in math grades from the elementary school configuration (M = 79.2, SD = 11.4) to alternative school configuration (M = 84.1, SD = 9.7), a mean increase of 10.8 (SE = 3.0), p = .001. Math grades were statistically significantly higher in the elementary school configuration (M = 79.2) compared to the middle school configuration (M = 73.3, SD = 14.0), a mean increase of 5.9 (SE = 3.0), p = .051. Furthermore, math grades were significantly higher in the alternative school than the elementary school, a mean increase of 4.92 (SE = 2.4), p = .048. The configuration means were statistically significantly different ($p < .05$) with math grades from the first quarter different between the three school configurations.

Relation of mean scores of reading and math grades prove to have a visual similarity when graphed together. Figure 12 shows the comparable tendency between the three configurations.

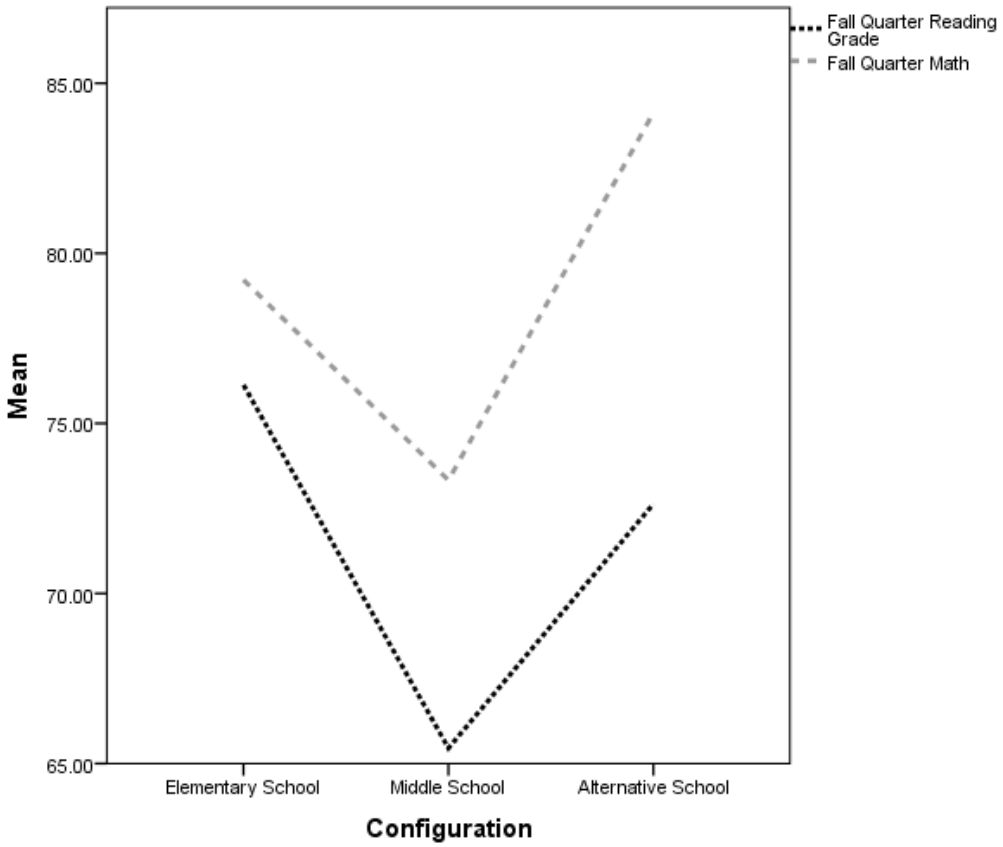

Figure 12. Relation of math and reading grades according to school configurations.

Research question 3. The multivariate analysis of variance (MANOVA) was conducted to the Hemingway-Measure of Adolescent Connectedness MAC: version 5 and student attendance data to answer the quantitative measures of RQ 3: Are sixth grade at-risk students' social and emotional needs met through greater school connectedness in the elementary schools, middle schools, or alternative schools? The MANOVA procedure is designed to look at multiple dependent variables concurrently (Laerd Statistics, 2015a). Due to the ordinal nature of Likert scale surveys, the researcher created subscale mean scores for the three constructs and as a singular measure for student sense of connectedness. Together with student absenteeism data, this statistical method considers values of all dependent variables together so that comparisons can be made between the groups to achieve a

comprehensive result of social and emotional needs within each configuration (Gordon et al., 2013).

Hemingway Measure of Adolescent Connectedness. The Hemingway MAC is a self-report measure of adolescent connectedness that has considerable validity evidence by undergoing substantial empirical scrutiny (Karcher, 2001). The survey was developed through a series of exploratory and confirmatory factor analyses, which revealed the same construct of student connectedness through numerous adolescent populations.

The researcher confirmed the study's validity using a principal components analysis within the school connectedness survey, which is the most accepted construction of reliability (Cronbach, Gleser, Nanda, & Rajaratnam, 1972). The reliability of the test can be affected by several factors including number of test items and the spread of the scores (Onwuegbuzie & Daniel, 2002). To gain a robust measure of school connectedness, the researcher combined the three constructs of the survey to gain the required number of test items to ensure validity. Negatively worded items were reverse-coded, and items were averaged to produce a mean score. The spread of the scores from the survey found to be limited with a .8 to 1.3 standard deviation among all eighteen-test items. Single negation questions were used to promote reliability and to crosscheck answer validity, but these types of questions can lead to misunderstanding, especially for participants who have not mastered the English language (Marsden & Wright, 2010). Due to the subpopulation of participants, their academic deficiencies and age contributed to the inconsistency of the understanding of a single negated question that resulted in a low correlation, $r < .3$. To maintain the integrity of the scale, the reverse coded question was retained. The researcher analyzed separate constructs to ensure internal consistency of items. One of the three constructs, sense of connectedness to peers, had relatively low reliability of Cronbach's alpha of

.70. Kline (2013) noted that when dealing with psychological testing, values below .7 can be accepted due to the diversity of the constructs being measured and the nature of the questions. Review of the inter-item Pearson correlation found values greater than .3 except for one item. All questions of the survey were retained since there is strong internal correlation among the majority of the items and met the provisions of use of the subscales (see Appendix D).

The subscale of students' sense of connectedness to school found the construct had a high reliability ($\alpha = .715$). Items assessing a students' sense of connectedness to teachers ($\alpha = .704$) indicating a high confidence level with the acceptance of $\alpha > .70$ (Cortina, 1993). The third construct of a students' sense of connectedness to peers had a low level of internal consistency ($\alpha = .646$). Consequently, due to strong alpha scores, the researcher retained all questions in the three constructs, maintaining all 18 items.

A one-way multivariate analysis (MANOVA) was conducted to determine if students' sense of connectedness on the Hemingway MAC and the number of student absences was different for three school configurations. Participants were represented in three configurations: elementary school ($n = 46$), middle school ($n = 33$), and alternative school ($n = 30$). Preliminary assumption checking revealed the survey questions were normally distributed for the three school configurations, as assessed by Shapiro-Wilk's test ($p > .05$). There were no outliers in the survey data, as assessed by inspection of a boxplot. As school connectedness increased, student absences decreased, causing a negative correlation which indicated a small effect and no multicollinearity ($r = -.189$, $p = .049$). A roughly linear relationship between the survey results and the student absences in all three groups occurred, which supports the small effect. No multivariate outliers were found in the data, as assessed by Mahaloanobis distance ($p > .001$). There was homogeneity of variance-covariances matrices, as assessed by Box's test of equality

of covariance matrices (p = .915) since Levene's was found significant. Participants in the three configurations, elementary school, middle school, and alternative school, had higher mean survey scores than their absences due to the negative correlation between the two variables. Table 18 shows the means of the variables for the three configurations.

Table 18

Means and Standard Deviations on the Hemingway MAC Survey and Absences Between School Configurations for RQ3.

	Elementary School		Middle School		Alternative School	
Variables	*M*	*SD*	*M*	*SD*	*M*	*SD*
Survey	72.9	8.20	63.3	8.40	69.50	8.90
Absences	1.5	0.82	1.6	0.91	0.75	0.96

Note. Total N = 109.

There was a statistically significant difference between the schools on the combined dependent variables, $F(4, 210) = 10.484$, $p < .0005$; Wilks' $\Delta = .695$; partial $\eta 2 = .166$. Follow-up univariate ANOVAs showed statistically significant difference in connectedness survey scores ($F(2, 106) = 12.509$, $p < .001$; partial $\eta 2 = .191$) and in student absences ($F(2, 106) = 8.772$, $p < .001$; partial $\eta 2 = .142$) among the three different school configurations, using a Bonferroni adjusted α level of .025. Tukey post-hoc tests showed that for connectedness survey scores, elementary school ($p < .001$) and alternative school ($p = .011$) students had statistically significantly higher mean scores than pupils from middle schools, but not between elementary and alternative school students ($p = .217$). For student absence rates, Tukey post-hoc tests revealed that alternative school students had a lower absenteeism rate than students from either elementary school ($p = .002$) or middle school ($p = .001$). There were significant differences in absence rates, resulting in alternative schools having fewer absences and an increased attendance rate in comparison with the other two configurations.

Individual survey construct correlations of a student's sense of connectedness based on teacher relationships presented statistically significant for students from elementary ($p < .001$) and alternative schools ($p < .001$) in comparison to middle school students ($p = .922$). When compared to a student's connection to their school, again, elementary ($p < .001$) and alternative ($p = .026$) schools had strong relationships in comparison with students at the middle schools ($p = .562$). The final construct of a student's relationship with their peers did not show any statistically significant correlations among the three configurations ($p > .05$). Survey subtests correlations for teacher relationships, connection to school, and relationships with peers are represented in Table 19.

Table 19

Individual survey subtests of the Hemingway MAC significance correlations among the three configurations

Configuration	Teacher Relationships	Connection to School	Relationship with Peers
Elementary	p < .001	p < .001	p > .05
Middle School	p = .922	p = .562	p > .05
Alternative	p < .001	p = .026	p > .05

A student's sense of connectedness survey and attendance rate, the two quantitative variables used as indicators for meeting a student's sense of social-emotional needs, do appear to be positively related to different school configurations. This indicates that the three constructs within the survey, relationship to peers, teacher relationships, and connection to school, maybe helpful for increasing student attendance and positive social-emotional well-being. The three school configuration means were statistically significantly different ($p < .05$) for the Hemingway MAC survey and absenteeism data.

Research question 4. The multivariate analysis of variance (MANOVA) was conducted to analyze office discipline referral (ODR) data and attendance to answer the quantitative

measures of RQ4: Is there a difference in the behavior of at-risk sixth-grade students enrolled at elementary schools, middle schools, or alternative schools based on discipline referrals (ODR's), suspensions, expulsions, and attendance?

Through the collection of ODRs data from the sites, no reporting of expulsions occurred for the sixth-grade students during the first quarter of the school year. Due to this absence of data, the researcher partitioned the ODRs into Out-of-school suspensions (OSS) and In-school suspensions (ISS). The dichotomized discipline provides information on the severity of the offense. ISS and OSS, though different punishments, are assigned inconsistently and not systematically across schools. Schools and districts are finding OSS as ineffective and leads to higher disengagement in school (Mendez & Knoff, 2003). Therefore, for the purpose of the study, ISS and OSS will be treated singularly as a discipline and analyzed within the ODR data. OSS absences were not calculated within the absenteeism data nor any school directed absences, such as extracurricular activities.

The means of overall ODRs with ISS and OSS data were utilized to determine the extent of severe discipline practices among the different the configurations. Figure 13 exposes alternative schools assigning more OSS than the elementary and middle schools. Conversely, the elementary and middle schools assigned more ISS than alternative schools.

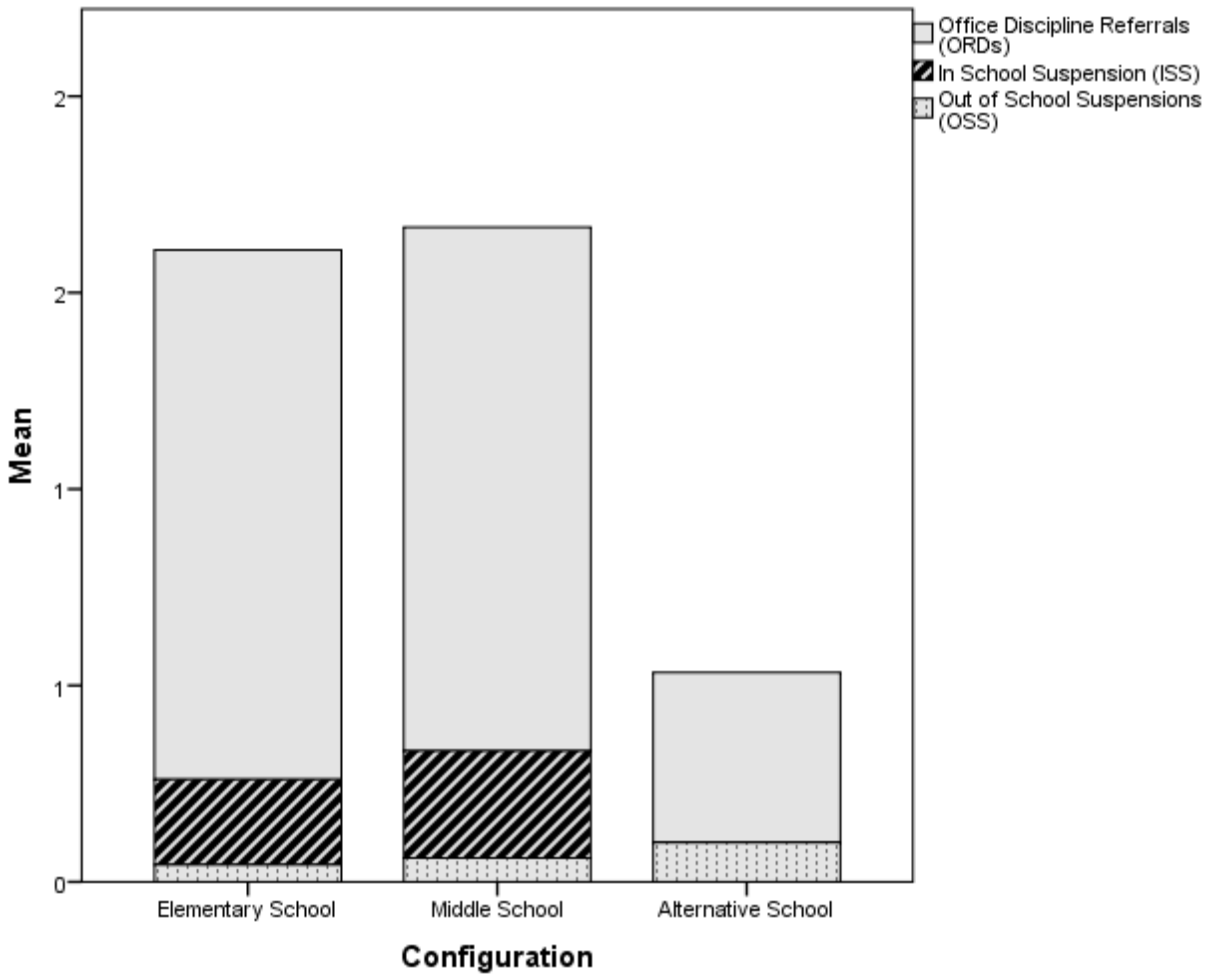

Figure 13. Distribution of ISS, OSS, and discipline referrals for three configurations.

A one-way MANOVA was conducted to determine if the number of student absences and ODRs were different for three school configurations. Participants were represented in three configurations: elementary school (n = 46), middle school (n = 33), and alternative school (n = 30). Outliers were detected in the ODR data, as assessed by inspection of a boxplot. The researcher rejected transformation of the data due to the nature of the subpopulation being studied. Students could be identified as at-risk, solely on behavior issues, which creates an anomaly of abnormally high patterns of discipline referral data (Freeman et al., 2015). A correlation occurred as the absenteeism results increased, the student discipline referrals

increased indicating a small effect and no multicollinearity (r = .193, p = .044). No linear relationship was found between the absenteeism data and discipline referrals in all three groups. As assessed by Mahaloanobis distance (p > .001), there were no multivariate outliers in the data. Homogeneity of variance-covariance matrices was met, as assessed by Box's test of equality of covariance matrices (p = .011). Participants in the three configurations, elementary school, middle school, and alternative school, had higher mean absence rates than their mean discipline referral records as shown in Table 20.

Table 20

Means and Standard Deviations of Absences and ODRs Between School Configurations for RQ4.

	Elementary School		Middle School		Alternative School	
Variables	*M*	*SD*	*M*	*SD*	*M*	*SD*
Absences	1.5	.82	1.6	.91	.75	.96
ODRs	1.4	2.3	1.3	2.2	.4	1.2

Note. Total N = 109.

There was a statistically significant difference between the schools on the combined dependent variables, $F(4, 210) = 4.850$, p = .001; Wilks' Δ = .838; partial $\eta 2$ = .085. Follow-up univariate ANOVA did not show significant difference in student absence data ($F(2, 106) = 8.772$, $p < .001$; partial $\eta 2$ = .142) and in ODRs ($F(2, 106) = 2.176$, p = .119; partial $\eta 2$ = .039) between the three different school configurations, using a Bonferroni adjusted α level of .025. Homogeneity of variances was violated, as assessed by Levene's Test of Homogeneity of Variance ($p < .0001$). Students' absenteeism rate was statistically significant different for three school configurations, Welch's $F(2, 66.734) = 3.696$, p = .03. There was a decrease in ODRs of the alternative school configuration (M = 0.4, SD = 1.2) to the elementary and middle school configurations (M = 1.4, SD = 2.3; M = 1.3, SD = 2.2), respectfully, a mean decrease of -0.9, SE = 0.5 for both elementary and middle school configurations, which was not statistically

significant (p = .138 and p = .189, respectively). The three school configuration means were not significantly different (p > .05) for ODRs and absenteeism data. Although the results were not significantly significant, through visual inspection, ODRs and attendance appear to have a relationship according to each configuration, as represented by Figure 14.

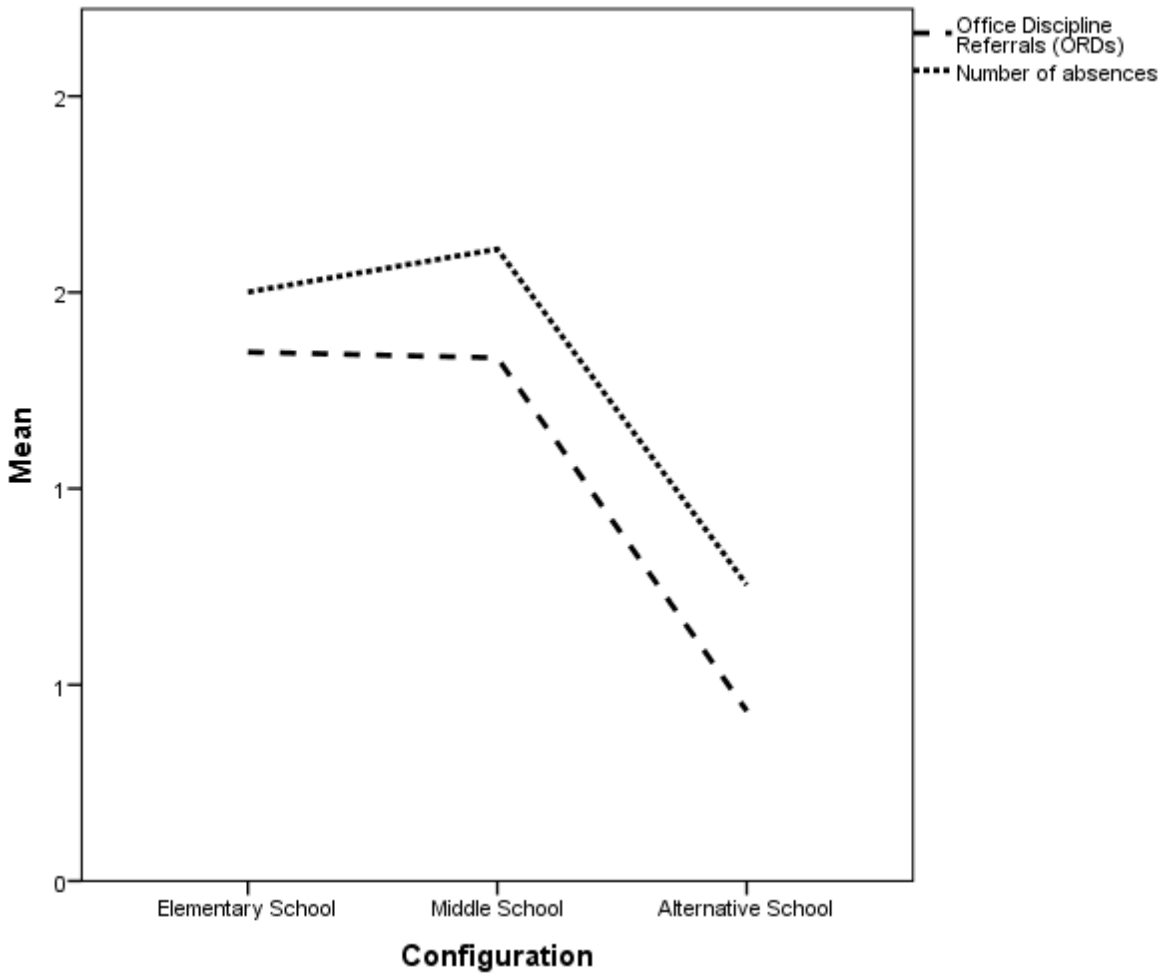

Figure 14. Mean ODRs and absenteeism data for three configurations.

Conclusion

In Chapter 4, the researcher has reported the mixed methods findings to investigate the academic and social-emotional effectiveness of three different configurations for at-risk sixth grade students. Applying an ANOVA for RQ1 and RQ2 afforded results that provided a

construct of the academic outcomes of students in each configuration. Data regarding student academic success, including Quarter One grades from math and reading, along with findings from archival documents, including lesson plans, converged to triangulate and validate findings with qualitative evidence. Furthermore, RQ3 and RQ4 gave the study the depth needed to investigate the social-emotional and behavioral aspects of at-risk students within these differing school structures. A MANOVA was an appropriate SPSS analysis to contrast specific constructs of measures and data to address the crux of the study (Laerd Statistics, 2015a). Hemingway MAC survey, attendance, and focus interviews were merged through convergent and divergent process to provide a robust and forthcoming story of the social-emotional needs of at-risk students in the context of their environments. To address the behavioral aspect of this study, the researcher compared attendance, ODRs, focus interviews, and archival documents associated with school discipline procedures to validate the school structure that will best ensure positive outcomes for students who possess at-risk factors.

Four important results emerged from this study that revealed academic, social-emotional, and behavioral themes. The first finding demonstrated an increase in reading and math grades in the elementary and alternative schools as compared to the middle schools. Secondly, analysis found that there was a significant negative correlation between absenteeism and the sense of school connectedness among the three configurations. This led to the third finding of students of alternative schools having insightful connections to teachers in their environments. Finally, alternative schools had lower ODRs and absences as compared to the other configurations in this study.

The following chapter will interpret the results found into the context of educational reform and practice in which this study subsidized. The findings will be summarized in relation

to each research question through the lens of the stage-environment fit theory, concluding with recommendations for policy, practice, and future research.

Chapter V

Discussion

Introduction

National data shows a substantial increase in dropout rates for students who possess risk factors, including minorities and students who are socially and economically disadvantaged (Balfanz et al., 2007; Stark & Noel, 2015). Inconclusive research addressing the crisis of failing students predominately focuses on individual programs, narrowing the causation of the crisis (CCAD, 1989; Lagana-Riordan et al., 2011; Pack et al., 2011; Thompson & Webber, 2010). By placing this challenge in the lens of the stage-environment fit theory, research reform can confront behavior, motivation, and mental health needs of students who are at-risk of dropping out by broadening the lens to their inclusive environments (Coladarci & Hancock, 2002; Hough, 2004). More importantly, the stage-environment fit theory will assert that school districts and boards take an informed role in grade-span configurations and address school climate to eliminate the mismatch of school environments for young adolescents when substantial pubertal changes occur. The development and social support of sixth grade students as supported by the stage-environment fit within this research can serve as a change-agent for altering the dropout trajectory (Cook et al., 2007; Cuban, 2013).

The purpose of this study is to examine the academic, social-emotional, and behavioral outcomes as predictors of school best-fit for young adolescents using the stage-environment fit theory as a framework. Reading and math quarter grades, Hemingway Measure of Adolescent Connectedness (MAC), focus interviews, number of absences, office discipline referrals (ODRs), and archival evidence were selected to allow the researcher to determine if school configurations have the ability to impact at-risk students' success in the areas of academics, sense of

connectedness to school, and behavior. By merging the quantitative and qualitative findings according to each research question, this study contributes to the understanding of how at-risk sixth grade students can gain a school environment of best-fit. The intent of this study is to provide educational leaders with the evidence necessary to make critical decisions regarding school culture and steps to remediate potential student failure.

Summary of Findings

Schwerdt and West's (2012) research of students who enter into sixth grade found a decline in reading and math achievement as the students enter middle school. The action of transitioning from one school configuration to another can affect academics negatively (Alspaugh, 1998; Byrnes & Ruby, 2007; Dhuey, 2013). In addition, a student's sense of connectedness to school and peers was the decisive factor for continual success, according to further research (Dove & Pearson, 2010; Ward et al., 2007; Weiss & Kipnes, 2006). At-risk students are more prone to negative impacts on their academics, social skills, and self-concept than their academically capable peers during the elementary to secondary transitions (Ward et al., 2007). Proffering supportive environments, by taking into account the individual vulnerabilities of these students, could alter their trajectory to disengagement.

Research question one. The first research question evaluated academic levels of students based on reading grades from the first quarter of school, attempting to find differences among the configurations. Data analysis revealed that elementary school and alternative middle school configurations' reading grades were higher than the middle school configuration. The difference was significant, indicating stronger academic success for at-risk students in elementary school ($M = 76.1$, $SD = 7.7$, $p < .001$). The middle school result supports prior research of transitions from one school to another influencing academics negatively (Alspaugh,

1998; Byrnes & Ruby, 2007; Dhuey, 2013). Conversely, alternative schools, where students experienced a transition from elementary school also, showed a statistically significant increase in reading grades (M = 72.6, SD = 13.9, $p < .05$) in comparison with their middle school counterparts (M = 65.5, SD = 12.5, $p > .05$). Previous research was inconclusive if transitions alone were the factor for the lack of academic transference of students (Coladarci & Hancock, 2002; Dove & Pearson, 2010; Ward et al., 2007; Weiss & Kipnes, 2006; West & Schwerdt, 2012). The outcome of this research found elementary and alternative school students to be achieving average reading grades, whereas the middle school students were obtaining below average reading grades (M = 65.5, SD = 12.5).

At-risk students are vulnerable to continued academic failure (Ward et al., 2007). The results of the middle school reading grades support prior research findings of students declining academically during their transition to middle school (Booth & Gerard, 2014; Schwerdt & West, 2012). Anderman and Midgley (1997) found the achievement gap diminished when students do not make major school transitions during early adolescents. Conversely, the transition of students to the alternative school environment proved statistically significant positive impacts on reading grades in comparison to their middle school peers. This inconsistency of findings regarding transitions of alternative school students will support research findings that transitions, in themselves, do not negatively deter student academic success (Alspaugh, 1998; Byrnes & Ruby, 2007; Dhuey, 2013). With this evidence, it becomes clear that elementary and alternative school configurations have a positive effect on reading achievement.

Research question two. With regard to the second research question, the results showed alternative schools' quarter math grades (M = 84.1, SD = 9.7, $p < .005$) to be significantly higher than those of the elementary (M = 79.2, SD = 11.4, $p = .117$) and middle

schools (M = 73.3, SD = 14.0, p = .124). Math grades were similar between the elementary and middle schools. Although math grades in all three configurations were in the average to above average range, the alternative school students' grades were higher than the elementary and middle school grades. These results support previous research finding that middle schools provided fewer choices in math as compared to elementary schools allowing autonomy to increase student motivation (Anderman & Midgley, 1997). Furthermore, middle schools utilized more whole class instruction and less small group work than elementary schools, which addressed individual needs and a task-focused goal structure (Anderman & Midgley, 1997). Further investigation within this study will merge the social-emotional need and a student's sense of connectedness to school and peers, which provides a factor for continual academic success (Dove & Pearson, 2010; Ward et al., 2007; Weiss & Kipnes, 2006).

Academics research synthesis. Research questions one and two addressed the academic differences between the three configurations. Even though students were identified with the same at-risk indicators in all three school structures, students from the alternative schools had significantly higher reading and math grades as compared to the middle school. Notwithstanding each district following common core standards within its schools, there were set academic outcomes within each environment which were consistently assessed. The use of formative and summative assessments provides cumulative data, rather than a single summative assessment of achievement (Guskey, 2007). According to Balfanz et al. (2007), two of the four at-risk warning indicators for dropping out of school are failing grades in reading and math in the sixth grade; the other two warning indicators being out-of-school suspension (OSS) and poor attendance. The small group interventions, teacher relationships, class and school size, and programs of an alternative school setting may divert the risk factor of dropping out of

school for these vulnerable students (Blum, 2005; Lemberger et al., 2015; Libbey, 2004; Porowski et al., 2014; Quinn et al., 2006). The academic findings from this study are consistent with Finn and Rock (1997), who found aspects of school and classroom organization to have an effect on student achievement, including class and school size.

To fully comprehend the range of the academic impact of the three configurations, this study needed additional data sources as a method of triangulation, increasing the robustness and reliability of the findings (Creswell, 2017). Archival data of lesson plans and field notes provided insight to the differences within the individual schools. Dissimilarities within the configurations that could have influenced the difference of reading and math academic achievements of the elementary and alternative schools in comparison with the middle schools lie within the delivery of instruction. Goal orientation and providing a systematic method of teaching strategies were commonalities within the lesson plans that contributed to increased reading and math skills for elementary and alternative schools, whereas middle schools utilized exploratory activities with high-student engagement and reduced multisensory practices (Denton, Bryan, Wexler, Vaughn, & Reed, 2007). Additionally, elementary schools demonstrated strong positive student achievement data within their configuration, possibly due to task-focused lessons and small-targeted ability groups found within their lesson plans (Anderman & Midgley, 1997; Blum, 2005).

Moreover, within the alternative schools, an emphasis on strengths-based instruction, including building on previous knowledge, affords students with the background knowledge optimal for new learning (Lagana-Riordan et al., 2011). These strategies were found in projects and student input for learning, as documented in teacher lesson plans and archival photographs of student work (see Appendix N). One example of this is teachers from alternative schools

encouraging students to summarize previous knowledge and apply it using graphic organizers. This is strong pedagogy for all teaching, but more prevalent according to this study's findings for the alternative configuration (VDE, 2014). These practices are evident in this excerpt from a reading lesson plan, "I will ask students to remind me of our central ideas. I will model how to write their textual evidence in the 4 boxes." Additionally, alternative schools have the characteristic of small class sizes, which is shown as crucial to increased academic achievement (Finn & Rock, 1997; Holas & Huston, 2012; Romero et al., 2014).

By merging findings of Hemingway MAC with this study's academic results, there was a relationship between academics and connectedness. Elementary and alternative school configurations found combined statistically significant results of teacher relationships ($p < .001$) and connection to school ($p < .05$) supporting previous research of students who felt connected performed better academically (Blum, 2005; Goodenow, 1993; Karcher, 2002; Libbey, 2004; McNeely et al., 2002). Furthermore, researchers Lemberger et al. (2015) supported findings of marginalized students who had a sense of school connectedness achieved better academically specifically in reading and math. These strategies supported with elementary and alternative schools' statistically significant results from Hemingway MAC survey provided evidence that the elementary and alternative configurations were beneficial to a student's sense of connectedness within these two measures. Further implications for student success will be evident with the qualitative findings for research question three.

Research question three. To answer the third research question, the researcher synthesized the results using focus interviews, Hemingway MAC, and absenteeism rates to determine if social-emotional needs are met through greater school connectedness in each of the configurations. Hatch (2002) recommends that the researcher queries how all of the findings fit

together. Using the convergent parallel design of analysis, the researcher compared quantitative and qualitative results by merging the two sets of results. Elementary school configurations showed students achieve a sense of school connectedness through personalized teacher interactions and active engagement in school, which supports qualitative and quantitative results. Unfortunately, elementary schools' absenteeism rate (M=1.5) is twice as great as compared to the alternative schools' rates (M=.75). Middle school configuration results lacked significant quantitative findings but found teachers to be supportive and connect with students on an individual basis through findings of the focus interview. A middle school student shared, "He's really nice, and if he sees I'm, [*sic*] like, if I'm not doing really well with something, he'll help me. He'll come and check with me." Another middle school student stated, "If I'm having a bad day, she'll, [*sic*] like, cheer me up…she helps me with my homework." Middle school students were positively impacted by teachers with their ability to build relationships even when brief acts of support and care were directed to students. As represented in all three configurations, the more time a teacher spent with an individual student, the more the student reported positive attributes, which included caring, trust, and respect.

Overall, alternative schools showed significant results in factors promoting connectedness across all three measures. The configuration's ability to create a culture that increased student attendance (p <.05) and met social-emotional needs through school connectedness (p <.05) was salient within this construct. The theoretical framework of the stage-environment fit theory supported the findings of the alternative school configuration, which socially and educationally supported adolescent developmental needs, providing positive outcomes (Eccles et al., 1996). This is evident in focus interviews revealing compelling evidence as conveyed by one student in an alternative school:

> She was the only teacher ever…to pronounce my name correctly. She's just really easy to work with. She can relate to some of the things I'm going through. She listens to you and cares about you, and she tells us stories about herself and [*sic*] some of us can relate.

In accordance with the stage-environment fit theory, the disparity between the learning environments of the elementary and middle schools in comparison with the alternative school had an adverse impact on an adolescent's developmental needs (Eccles et al., 1993b). The following quote demonstrates the failure of the learning environment of the elementary school: "She lost her temper last year. She yelled at fifth grade kids." A middle school student's observation found the environment as, "It's a lot bigger." Elementary and middle schools are larger not only in school populations, but also in classroom sizes with 25 to 32 students per class as compared to 12 to 15 students in alternative school classrooms. In addition, middle school teachers have six to seven forty-five-minute class periods with different students decreasing their ability to make connections to individual students (Cuban, 2013).

Focus interviews among elementary and middle school students found them to have less frequent and more superficial relationships with teachers. The elementary interviews revealed two teachers who were identified by students as teachers with whom they were able to connect and whom they described as "nice." In addition, middle school students identified teachers who were willing to help them with their work after class or during lunch. In contrast, the alternative student interview exposed interpersonal relationships that supported research of effective teachers who create connectedness in the classroom (Blum, 2005; Libbey, 2004; Loukas et al., 2016; McNeely & Falci, 2004). An alternative student shared a feeling of care from a coach, "He knows I have asthma and so he usually helps me because when he notices I am wheezing, he usually lets me sit out and take a break, and he always reminds me to take my inhaler before

gym, [*sic*] when I forget. So, it really helps." Another student shared how her teacher trusts her, "She lets me choose what the class is doing next because she really trusts me, and so it's really helpful to know that she can relate to the things I am going through."

Students are afforded the occasions to relate to teachers due to the smaller school size and smaller classroom numbers. Alternative school teachers are able to know their students on an individual basis and follow the student through their journey in their school communities. By knowing their students' individual stories, alternative school teachers are able to know students with a deeper connection than teachers in larger schools where teacher may only have cordial relationships with students through assistance on assignments (Eccles et al., 1996; Karcher, 2002; McNeely et al., 2002). This is apparent from the interview transcripts and the survey construct of statistically significant teacher relationships which showed for students from alternative schools ($p < .001$) in comparison to middle school students ($p = .922$).

The findings from this study showed that the positive attributes identified by participants and archival data from elementary and middle schools are fully encompassed in the alternative school model. The phenomenon of the alternative school configuration is pivotal in research for meeting the needs of at-risk sixth grade students (D'Angelo & Zemanick, 2009; Druian & Butler, 1987; Lagana-Riordan et al., 2011; Quinn et al., 2006). The collective qualities of the alternative environment support social emotional well-being of adolescents, according to the stage-environment fit theory, and exceed the other two configurations' abilities to do so. Key indicators from the research found the attributes that constitute a supportive environment in the alternative school (M=.74, M= 0.4), that were not prevalent in elementary (M=1.5, M=1.4) nor middle (M=1.6, M=1.3) schools, were better attendance and reduced disciplinary referrals. The elementary and alternative schools shared significant findings of a greater sense of

connectedness among teachers (p <.001) and school (p < .05) not found in the middle school. The collective results of interviews, Hemingway MAC surveys, and absenteeism rates for each configuration become united in the alternative setting as represented in Figure 15. Being able to eradicate failing grades, retention, and a low sense of school connectedness could drastically reduce a student's disposition to dropping out of school (Barton, 2005; Mendez & Knoff, 2003).

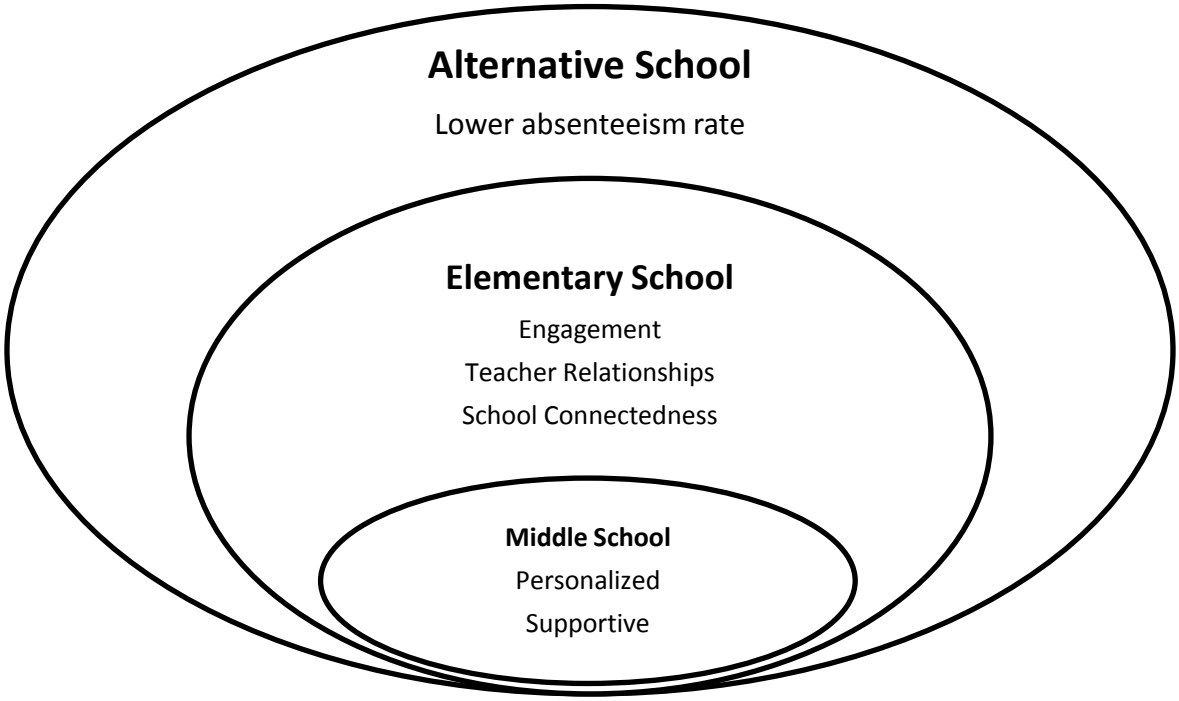

Figure 15. Comparison and convergence of the three measures for the three school configurations merges all positive attributes into the alternative school configuration.

Research question four. The fourth research question sought to identify if there was a difference in the behavior of at-risk sixth grade students from three different configurations. The correlation of behavior referrals and absenteeism data merged with the qualitative findings were reported as individual configurations to answer the research question. There were no statistically significant correlations between absenteeism and ODRs, but alternative schools did show lower absenteeism (M= 0.75) and ODRs (M= 0.4) in comparison to elementary (M= 1.5; M=1.3) and

middle school (M=1.6; M= 1.4) configurations respectively. Elementary and middle schools have double the absenteeism occurrences and triple the discipline referrals as compared to the alternative schools.

The qualitative findings supported the quantitative results that the alternative school configuration embraced structure and personalized connections in comparison to elementary and middle schools, which merely retained one of the two characteristics. The results found the alternative school configuration to have multiple factors to support an environment that dictated fewer discipline concerns and created a supportive community that attends to behavioral needs of at-risk students. The alternative schools' discipline practices provided less punitive measures for behavioral referrals and addressed needs through restorative means. An alternative school student shared her experience with a peer relationship struggle: "When you have really bad conflict, sometimes the counselor forces you to be friends, like, they make it so you have to make-up." She further explained, "So, I just like went down [to the counselor's office] and we talked it out."

The evidence in school handbooks and interviews found alternative schools supported positive behavioral intervention supports, consistent expectations, and non-punitive alternatives (Blum, 2005; Finn & Rock, 1997; Nocera et al., 2014; Simonsen et al., 2011). The alternative school handbook included the PBIS expectations and structured implementation of the point cards. Interviews found students from the alternative setting referring to private conversations with teachers, relational interventions with the counselor, and the PBIS system using the point cards. Conversely, the nature of an alternative school could inherently report fewer ODRs because of the tolerance level of the culture and the ability to use non-punitive consequences (Lehr et al., 2003; Skiba & Losen, 2016; Skiba et al., 1997). Studies on punitive discipline found

it to be an ineffective method to decrease behaviors (Lagana-Riordan et al., 2011; Nocera et al., 2014; Smith et al., 2012). This could substantiate the report of fewer in-school suspensions (ISS) and OSS discipline consequences for alternative school students who would be assigned less punitive disciplines (see Figure 13).

One alternative school site utilized a restorative measure, youth court, to address more severe discipline infractions, which imposed alternate disciplinary consequences delivered by their peers. These consequences entail a community service type of restitution rather than ISS and OSS alternatives, in support of literature that punitive discipline did little to reduce negative behaviors (Skiba & Losen, 2016; Thompson & Webber, 2010). Furthermore, self-regulation and teacher relationships were proactive strategies found to be successful in the alternative schools, which created a positive climate (Lemberger et al., 2015; Osterman, 2000; Smith et al., 2012). In one participating alternative school, the use of a point card became an integral part of the culture to set the consistent expectation with a matrix of behaviors categorized as preparedness, direction following, and respect. Each student recorded his or her individual behaviors throughout the day, allowing for self-regulation. Staff consistently supported the expectations by remarks from the students, with points awarded according to expectations being met. Qualitative investigation found alternative schools to provide fair and consistent disciplinary expectations that are part of the school's culture; extra academic supports, including tutoring and smaller class sizes; and more profound connections with staff. The convergence of findings follows the study's trend of alternative schools meeting needs of at-risk students according to behavioral challenges.

Connections to Stage-Environment Fit Theory

This study sought to apply the stage-environment fit theory to investigate the mismatch of school environments on young adolescents when developmental changes occur. The

alternative school configuration's findings were salient as the best-fit for students who have at-risk indicators and are at a high propensity for dropping out of school. The study supports previous finding that large schools negatively effect school connectedness (McNeely et al., 2001). Middle school students felt more attached and connected in smaller schools supporting socially and educationally supported communities than larger schools perpetuating the decline of young adolescents' sense of connectedness (Eccles et al., 1996; Karcher, 2002; McNeely et al., 2002). Academic results were higher in the transition period for at-risk students in the alternative setting than in either the elementary or middle schools. Eccles and Roeser (2011) emphasized the need to provide young adolescents with developmentally supportive school environments to avoid academic failure. This study's results demonstrated, in accordance with the stage-environment fit theory, there is a disparity between the learning environments and an adolescent's developmental needs (Eccles et al., 1993a).

Research has provided a plethora of programs and traits to create supportive schools through instruction and connectedness (Barton, 2005; Finn & Rock, 1997; Mann et al., 2014). The alternative school configuration bridged the gap between learning and developmental needs, as supported by the reading and math data, and provided a positive connection to meet student emotional challenges, as measured by the survey and focus interviews. Reading and math grades for the alternative school students (M=72.6, M=84.1) were improved over the middle schools' results (M= 65.5, M=73.3). Students in the alternative schools had stronger relationships with their teachers (M=4.69) in comparison with elementary (M=4.64) and middle (M=4.06) schools. Furthermore, alternative schools had a statistically significant decrease in student absenteeism (p <.05) in comparison with the other two configurations (p > .05). The findings of this study reveal consistencies with previous research (Battistich & Hom, 1997; Gordon et al., 2013;

Osterman, 2000), in that students who felt a sense of belonging from their teachers had greater academic success and better attendance. While all three schools had positive survey results (M=3.8), the alternative school configuration also had improved academics and attendance, outperforming the elementary and middle school configurations in all three measures. Even though the middle school concept's purpose is to meet the need for socially and educationally supported communities, as presented by the National Middle School Association (2010), the task is daunting because of the organizational limitations of school size and departmentalization (Cuban, 2013; Eccles et al., 1996). Students who face academic and emotional challenges require effective interventions in a caring environment, rather than a mismatch of school environments.

Conclusions

This study focused on finding the optimal configuration that meets an at-risk student's need for developing academically and socially. The results have provided evidence that a good stage-environment fit has a positive correlation to student achievement and sense of connectedness. The first conclusion was that reading and math abilities can be increased for at-risk students through a student's sense of connectedness to their school (Dove & Pearson, 2010; Lemberger et al., 2015; Ward et al., 2007; Weiss & Kipnes, 2006). The elementary and alternative schools deliver supports that sustain an environment conducive to the developmental needs of young adolescents by providing personalized and structured learning in a smaller environment. Lesson delivery components common in both elementary and alternative schools prevail in effective methodology for students with at-risk indicators (Blum, 2005; Byrnes & Ruby, 2007; Erb, 2006). The common instructional strategies from the elementary and alternative schools, but lacking in the middle schools, were small group instruction, projected-

based learning, minimal lecture format, expectation modeling, and multisensory techniques. An alternative school student commented on instructional techniques,

> If every class…had your brain get [*sic*], like, more excited, I wouldn't get bored. A class is really dull, it tends to make me bored. Mrs. Jones' class is full of a bunch of colors and superheroes, [*sic*] which kind of, wakes me up…when there is a learning game called Kahoots…some kids are really motivated, [*sic*] like, I want to win.

Several of these didactic approaches are also fundamental in middle school research as pedagogically sound practices, but they were absent in the interview findings for the middle school configuration (NMSA, 2010). However, strong middle schools pedagogical practices included student engagement and high expectations supported by *This We Believe: Keys to Educating Young Adolescents* were found in teacher lesson plans (NMSA, 2010). Kiefer and Ellerbrock (2014) support the need for high-quality teacher-student relationships as being essential in promoting student learning confirmed in the results of the elementary and alternative school configurations. Even though elementary and middle schools provide sound teaching practices, there is a mismatch in school experiences and their basic developmental needs which leads to a decline in academic engagement (Kiefer & Ellerbrock, 2014).

The second conclusion is that middle schools are not meeting the social-emotional developmental needs of at-risk students, as proven by decreases in academic performance, attendance, and sense of connectedness (Blum, 2005; Buehler et al., 2015; Lemberger et al., 2015). Middle schools within this study had large enrollments, with departmentalization, short class periods, ability grouping, and minimal cross-curricular planning. This conclusion supports previous research signifying a culture that does not meet young adolescents' social emotional needs resulting in student disengagement and failure (Cuban, 2013; Holas & Huston, 2012;

Lemgerger et al., 2015). Elementary and alternative configurations support research stating a student's sense of connectedness to school is positively correlated to student achievement, behavior, and attendance (Balfanz et al., 2007). Mann et al.'s (2014) research supports teachers who spend time with young adolescents and being aware of their emotional vulnerabilities by treating them with high levels of respect, consideration, and compassion. By continuing unfitting systems, the students are found to exhibit a decrease in motivation, interest, performance, and attitude, aligning with prior research of social developmental needs (Blum, 2005; Buehler et al., 2015; McNeely et al, 2002). To alter the trajectory of students failing within the mismatch of environments, school leaders need to create communities within their institutions to afford students the opportunity to engage in a caring school and build a climate that meets their developmental needs especially with marginalized populations.

Finally, this study underscored the necessity to alter disciplinary procedures and increase a sense of connectedness to affect the reduction of ODRs and absenteeism. Even though results were not statistically significant, there was a positive relation between the absenteeism and discipline referrals, which were lower in the alternative schools. In addition to academic struggles, typical sixth grade students in middle schools have more disciplinary referrals than their peers who attend sixth grade in the elementary schools, according to previous research (Balfanz et al., 2007; Cook et al., 2007). Within this study, elementary (M=1.4) and middle school students (M=1.3) experienced similar numbers of discipline referrals, with the data showing a decrease in the alternative settings (M=0.4). This contradiction in research could be due to the subpopulation of the study only addressing students who have at-risk factors. Commonly, this subpopulation frequently receives more ODRs than their non-vulnerable peers (Hilberth, & Slate, 2014; Skiba et al., 1997). When analyzing case frequencies, 72% of the

students in the elementary configuration as compared to 55% of middle school students received no ODRs. In addition, more elementary students received five or more ODRs (24%) than their middle school counterparts (9%). Though fewer elementary students receive discipline referrals, the students who do receive referrals are more frequently offenders. Research has addressed office referrals as related to grade, gender, and race/ethnicity but was limited in the area of configurations (Kaufman et al., 2010). There is an increase in discipline referrals as students move into adolescence (Putnam, Luiselli, Handler, & Jefferson, 2003). The results of this study parallel research data of frequency of referrals in relation to proportion of students. The majority of the referrals were received by less than 30% of overall number of students.

The difference found between the alternative schools and the elementary and middle schools was the implementation of structured school-wide positive behavior supports (SWPBS). Through review of school handbooks and interviews, both alternative schools in the study implemented structured programs of student self-monitoring and positive recognition. Students reported that teachers consistently monitor behavior by praising or by imposing a consequence as this student stated, "She like just, like, stops and she usually takes a point…and some teachers send students out in the hall." Research also supported a fair and consistent discipline program that met students' need for behavioral expectations and clear limits, which both alternative schools had established (Blum, 2005; Smith et al., 2012).

Establishing a culture of consistency through a system of expectations empowers students to monitor themselves and their peers (Lemberger et al., 2015). An alternative school student shared his frustration with a student who was not following the norm of the school and how, through his disgust of the situation, he consoled the teacher,

> One student, who yells in every class [*sic*], she [the teacher] pulled me out and asked if he hated her because he kept shouting out in every class. She literally asked, like, "Does he hate me?" I told her that he doesn't and I told her not to worry about it.

The student's empathy for his teacher demonstrates a culture where students are held to a higher standard of behavioral expectations through a consistently implemented program.

Overall, this study's results supports previous research, which found students who felt a sense of connectedness to their schools had a decrease in absenteeism, fewer classroom discipline referrals, and an increase in academic performance (Blum, 2005; McNeely et al., 2002; Osterman, 2000; Voelkl, 1995). Importantly, this research offered specific insight regarding a marginalized population of students who are failing in our current system. Policy-makers have pursued alternative programs to meet the diverse needs of unsuccessful students to prevent potential dropouts (Barton, 2005; Finn & Rock, 1997). Subsequently, there has been prolific research with regard to programs that meet student needs, but has lacked what is the most beneficial school configuration for students who are not successful in traditional schools (Mann et al., 2014; Molloy et al., 2010; Wooley & Bowen, 2007). This research melds the two variables, programs and configurations, to produce a developmentally appropriate community that could extinguish student failure.

Recommendations for Future Research

The findings from this study contribute to the existing literature regarding the impact of school configurations on student achievement and social-emotional well-being. Furthermore, the study examined the subpopulation of at-risk students in relation to drop out indicators. Given the results of this study, and recognizing the various limitations, some recommendations for further research are suggested.

The first recommendation is to extend the current study to measure longitudinal changes of cohorts within individual configurations. This would determine if the sixth-grade academic, social-emotional, and behavioral results continue the same trajectory throughout the middle level educational career or if the results are only specific to the sixth grade year. Prior research has been found inconclusive regarding students' academic transference during transitions from elementary to middle school (Booth & Gerard, 2014; Coladarci & Hancock, 2002; Schwerdt & West, 2012). This study's recommendation would afford insight to at-risk students' success during this crucial developmental stage in their lives and determine if they recoup their losses. This recommendation transitions into the second recommendation, by continuing the longitudinal study though the students' high school careers. Such a longitudinal study would afford data for students who graduate according to their early adolescent school configurations. This empirical data is needed to measure the influence on graduation rates.

Next, the study would need to acquire standardized measures of academics, at-risk factors, and disciplinary referrals to remove the inconsistency occurring in differing school, district, and state policies. Leveraging the ability to disaggregated data from a data clearinghouse by gender, race, and socio-economic status when utilizing standardized measures would resolve the dilemma of academic variations. Acquiring consistent quantitative data will contribute to a significantly robust study that could be replicated to find consistencies across configurations.

Additionally, further research among varying configurations beyond the scope of the current research for the at-risk population could provide more significant data and allow more transference. Configurations vary across the country and need considerations. The

current study was limited to three configurations due to the limited geographical area of the research. Acquiring other grade structures, such as kindergarten through eighth grade, might convey additional understanding of best-fit for at-risk populations.

Finally, this study could be expanded for future research by replicating research in other states, including varying community sizes with an increase in qualified participants. The current research was restricted to rural and suburban communities of the Northwest. Expanding to urban sites will increase the study's ability to access more students who would possess at-risk factors, increasing the participants in the sample. Conducting this research would improve the generalizability and validity of the results (Creswell, 2017).

The allocation of time and resources supporting the necessity for building a sense of school connectedness that will change educational dividends through increased student engagement and high school graduation is paramount (Quinn et al., 2006). Future research could make notable steps in understanding the unique and perpetuating needs of at-risk students and school configurations by building on the origination in this study and by addressing some serious limitations this study faced. In all, the researcher believes the study may serve as a catalyst for further research for our increasing population or marginalized students.

Implications for Professional Practice

Students who are minority and are socially and economically disadvantaged are more likely to be identified as having at-risk factors and drop out of school (Balfanz et al., 2007; Lemberger et al., 2015). Moreover, students who possess one risk factor continue to have an increased rate of dropping out (Stark & Noel, 2015). In response to the continual increase in school dropout rates, preventing academic failure of at-risk students has been at

the forefront of issues in the United States (Barton, 2005; Lagana-Riordan et al., 2011). This research has extracted several implications to assist in the eradication of this injustice to our most vulnerable population.

First, we must establish communities rather than institutions. Elementary and alternative schools within this study proffer smaller communities to create a culture that is nurturing and caring. This vulnerable population requires an environment that is responsive to the needs of its students. Institutions that manage 700 or more students are strained to merely manage daily operations, let alone create meaningful connections. Small schools with lower teacher-to-student ratios increase student achievement and have a more connected community (Battistich et al., 2004; Byrnes & Ruby, 2007; Cuban, 2003; Garza et al., 2013; Gomez et al., 2012; Kiefer & Ellerbrock, 2012; Scheulte et al., 2003). School districts are unable to mobilize such a feat, but creating communities within these large institutions is essential to the well-being of students. Sixth through eighth grade school configurations that return to the middle school concept using an integrated curriculum within small teaching teams will endure a sense of belonging and security (Beane & Lipka, 2006). This study proved that the transition to middle school itself did not influence student success, but a nurturing community did result in student improvements in the areas of academics and social-emotional needs. In accordance to the stage-environment fit theory, Eccles and Roeser (2011) propose students exhibit a decline in school connectedness when there is a mismatch between a student's environment and their developmental needs. Reverting to the true middle school concept could afford an environment of best-fit that would be more developmentally and socially appropriate for our young adolescents (Clark & Clark, 1993; Eccles, 2004; NMSA, 2010; Schaefer et al., 2016).

Secondly, teachers must build relationships with their students by treating them with respect, care, and compassion. Teachers need to take time to listen to at-risk students' stories and be cognizant of how their lives make them susceptible to disengagement. The student interviews exposed at-risk students from the alternative setting finding empathy for their teachers along with teachers sharing personal struggles with their students. These findings were substantiated through the significant score on teacher relationships in accordance with the Hemingway MAC. Mutual connections construct an environment appropriate for the developmental stage of these students. Providing teacher preparation classes that develop relational pedagogies, reducing punitive discipline by implementing reflective practices, and employing structured time within schools to allow for interpersonal opportunities would assist in the mismatch of school environment to student developmental needs (Eccles & Roeser, 2011; Kiefer & Ellerberock, 2012). Revising discipline procedures to include restorative measures with effective teacher training on preventative alternatives and gaining the support needed for implementations can lead to an environment that promotes connectedness among students and teachers (Skiba & Losen, 2016).

Finally, this marginalized population thrives on a caring environment that accounts for individual differences. These students' emotional state is in constant flux, and an environment of consistent and fair expectations is developmentally necessary for students to feel safe and secure. School configuration alone cannot ensure academic success and social-emotional well-being. Many variables are vital in the foundation of a developmentally appropriate environment. These variables include clear expectations, individualized academic and behavioral supports, and staff who wholly care for their students. Without substantial reforms in our schools for young adolescents, the increasing trajectory of failure for our at-risk

population will remain. School decision-makers need to make the necessary adjustments to our current practices and configurations to increase connectedness for this vulnerable population, instead of waiting for our students to fail.

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Appendix A

Research Certificate

Certificate of Completion

The National Institutes of Health (NIH) Office of Extramural Research certifies that **MaryAnn VandeBrake** successfully completed the NIH Web-based training course "Protecting Human Research Participants".

Date of completion: 03/26/2015

Certification Number: 1732233

Appendix B

At-Risk Checklist

At-Risk Checklist

This checklist is used to identify students at elementary and middle school sites based on their previous school year (2016-17).

Students must meet **two** of the qualifying indicators to qualify as a participant for the study.

Yes/No	At-risk indicators
	Is absent more than 10% of the school year.
	*Has substance abuse behavior.
	Has failed or not met mastery of one or more academic courses a grading period.
	Has disruptive behaviors which resulted in ISS or OSS placement.
	Received over 5 ODRs in a school year.

*Substance abuse behaviors include previous or current use of non-prescribed drugs, marijuana, illicit drugs and alcohol. Early aggressive behavior, lack of parental supervision, academic problems, undiagnosed mental health problems, peer substance use, drug availability, poverty, peer rejection, and child abuse or neglect are risk factors associated with increased likelihood of youth substance use and abuse.

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Appendix C

The Hemingway: Measure of Adolescent Connectedness

School (6 items) This scale asks about how hard youth work at school, how much they enjoy school, and how successful they feel at school. It focuses on the importance youth place in school (i.e., how much they care for school) and the degree to which youth become actively involved in being successful in school.

Peers (6 items) This scale taps into the degree of positive feelings between the youth and his or her peers, as well as the degree to which the youth enjoys working with peers on projects and school related tasks. Finally, it captures the absence of conflict. In general, it taps into the degree to which youth feel they fit in with their peers, their sense of belonging in the school in general, and feelings of acceptance.

Teachers (5 items) This scale reflects youths' degree of concern about their relationships with their teachers, their sense of enjoying being with teachers, and their degree of affective involvement in their relationships with their teachers. This scale correlates with connectedness to parents, to school, to the future, and to reading. It also correlates with the conventional dimensions of religion, peers, and kids from other cultures.

School (6 items)
(6) I work hard at school.
(16) I enjoy being at school.
(26) **I get bored in school a lot.**
(36) I do well in school.
(46) I feel good about myself when I am at school.
(56) Doing well in school is important to me.
Peers (6 items)
(7) **My classmates often bother me.**
(17) I like pretty much all of the other kids in my grade.
(27) I like working with my classmates.
(37) I get along well with the other students in my classes.
(47) I am liked by my classmates.
(57) I rarely fight or argue with the other kids at school.
Teachers (6 items)
(8) I care what my teachers think of me.
(18) **I do not get along with some of my teachers.**
(28) I want to be respected by my teachers.
(38) I try to get along with my teachers.
(48) I always try hard to earn my teachers' trust.
(50) I usually like my teachers.

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Appendix D

Survey Permission

TERMS OF CONDITION FOR USE OF THE HEMINGWAY: MEASURE OF ADOLESCENT CONNECTEDNESS MEASURE OR SUBSCALES Thank you for your interest in the Hemingway: Measure of Adolescent Connectedness (preadolescent, adolescent, and college versions). You have my permission to use the subscales, under the conditions described below. In most cases there is no cost to use the subscales. I ask that you reply in an email to acknowledge your agreement with these conditions. However, I ask that the following terms be abided: (a) use only for stated research purposes (e.g., not for fee-based assessments or diagnostic uses, such as private pay mental health treatment or for-profit evaluation services*); (b) do not distribute to others outside of your research team without first securing my permission; (c) do not make financial profit from its use* (e.g., similar to "(a)" above, the scale may be used freely for research and grant-funded evaluations or projects only); (d) allow me to view (not to "approve" or to censure) any manuscript before it is submitted for publication so that I may gauge (and potentially provide comments on) the nature in which the subscale were used; (e) notify me of any publications or reports related to its use; (f) use only complete subscales (e.g., don't pull items from subscales for use in other ad hoc scales created by the research/scale-user; don't use subsets of items from a given subscale. One exception, for cross-cultural comparisons of elementary aged youth, the negatively worded items maybe be omitted from the scale, although these should remain in the items provided in the survey to decrease response bias); (g) provide me with access to the connectedness subscale data that is collected, along with basic demographic information (age, sex, race/ethnicity, clinical diagnosis), but blinded to exclude identifying information about the individuals who completed the measures, and also share other measures that could prove useful in tests of discriminant or convergent validity); (h) allow Michael Karcher to utilize the data provided (under g above) for possible secondary data analysis, for scale norming, for tests of construct validity, and possibly for publication. Please let me know if these terms are acceptable via email at michaelkarcher@mac.com

Appendix E

Survey Assent Script

Hi. My name is Mary Ann VandeBrake. I am a student at Northwest Nazarene University. Right now, I'm trying to learn about what environment do sixth grade students learn best. I would like to ask you to help me by being in a study, but before I do, I want to explain what will happen if you decide to help me.

I will ask you to answer sixteen questions about school using a survey. The survey will only take you 15 minutes. There are no right or wrong answers. By being in the study, you will help me understand the best learning environment for sixth grade students. One question on the survey will ask you if you would like to participate in a focus group. A focus group is when three of you will sit with me in a classroom and answer questions about your feelings towards school. This will last thirty to forty-five minutes and the discussion will be recorded. If you are willing to be in this activity, then mark yes on that question. The focus group will be the following week.

Your teachers and classmates will not know what you have chosen on the survey. When I tell other people about my study, I will not use your name, and no one will be able to tell who I am talking about.

Your parents have given you permission to be part of this study. But if you do not want to be in the study, you don't have to be. What you decide won't make any difference how people think about you. I won't be upset, and no one else will be upset if you do not want to be in the study. If you want to be in the study now but change your mind late, that's okay. You can stop at any time. If there is anything you don't understand you can ask me and I will explain it to you.

If you or your parents have any questions about the study, you can ask me now, e-mail me or call me later.

Do you have any questions for me now?

Would you like to be in my study and take the survey?

Appendix F

Permission Correspondence for Focus Group Questions

Hi Mary Ann,

Stage-environment fit theory guides much of the transition research Sarah and I have conducted. What I appreciate about this theory is its ability to truly capture the developmental appropriateness of school environments, including but not limited to teacher practices and school structures.

As I mentioned in my last email, the study you mention was part of a much larger investigation with many interview and focus group protocols. Because it seems you are interested in focus groups, I've included some questions from our focus group interviews below so you can see a sample of how we went about capturing the perspectives of multiple parties. I hope this helps, Mary Ann.

Student Focus Group (eighth Grade)

1. Tell me about a teacher that you may connect with. What is it about this teacher that helps build the connection between he/she and yourself?
2. How do you perceive your middle school community? Where do you fit in within this community? How do you think things might change as you move into high school?

Student Focus Group (9th Grade)

1. Think back to the end of your eighth grade year.
    a. What did you think high school would be like?
    b. How was high school similar / different from your thoughts?
2. Describe your freshman small learning community.
3. Tell me about a teacher that you may connect with. What is it about this teacher that helps build the connection between he/she and yourself?

Teacher Focus Group (eighth Grade)

1. Describe how you build relationships/connections with your students.
2. Elaborate on the importance placed on getting students to connect with/feel like they are a part of the middle school community.
3. In what ways might middle school faculty and staff help students become part of their middle school community?
4. In what ways might middle school faculty and staff help students prepare to become part of their high school community?

Teacher Focus Group (9th Grade)

1. Describe how you build relationships/connections with your students.
2. Let's talk about how your school currently organizes its freshman small learning community.
    a. Developmental focus
    b. Team organization
    c. Curricular focus
    d. Student focus
    e. Student activities
3. What are your perceptions of how your school/team/you may help students adjust to high school academically/socially/personally. Hinder?
4. In what ways might freshman faculty, school faculty, and school staff help students to become part of their new high school community?

Best of luck to you!

Take Care,
Cheryl Ellerbrock

Cheryl R. Ellerbrock, Ph.D.
Middle Level Education Research SIG Vice Chair
Helios STEM Middle School Residency Program Principal Investigator and Project Manager
Associate Professor of Middle Grades/General Secondary Education
Department of Teaching and Learning

Appendix G

Focus Group Questions

Focus Interview Question Alignment to Sage-Environment Fit Theory

1. Tell me about a teacher that you may connect with.
2. What is it about this teacher that helps build the connection between he/she and yourself?
3. How do you perceive your middle school community? (Removed question)
4. How do you think things might change as you move into high school?

Note. Adapted from "The interplay between adolescent needs and secondary school structures: Fostering developmentally responsive middle and high school environments across the transition." by C. R. Ellerbrock and S. M. Kiefer, 2013, *The High School Journal, 96* (3), p. 182.

Appendix H

Focus Group Assent Protocol and Questions

Focus Interview Assent Script:

Hi. My name is Mary Ann VandeBrake. I'm a student at Northwest Nazarene University. Right now, I'm trying to learn about what type of school do sixth grade students learn best. I would like to ask you to help me by being in a study, but before I do, I want to explain what will happen if you decide to help me.

Today you will be participating in a focus group which is an interview with a group of students to talk about how you feel in your school. The interview should take approximately 20 minutes. I will be audio recording the interview to use your responses in my research. Your participation is voluntary. If you do not wish to participate, you may stop at any time. Your responses will be anonymous, which means I will not use your name in the research. There are minimal risks associated with this survey. Taking part in this survey is your agreement to participate. During the group interview, I will not be able to guarantee confidentiality among students in the group. Therefore, if you would feel uncomfortable with any of your statements being shared with others in or outside the group, please do not share them during the process.

You and your parents have given permission to be part of this study. But if you do not want to be in the study, you don't have to be. What you decide won't make any difference how people think about you. I won't be upset, and no one else will be upset if you do not want to be in the study. If you want to be in the study now but change your mind late, that's okay. You can stop at any time. If there is anything you don't understand you can ask me and I will explain it to you.

If you or your parents have any questions about the study, you can ask me now, e-mail me or call me later.

Do you have any questions for me now?

Would you like to be in my focus interview?

1. Tell me about a teacher that you may connect with.
2. What is it about this teacher that helps build the connection or relationship between he/she and yourself?
3. How do you see your middle school community?

Appendix I

Site Approval Letters

[redacted] *A Tradition of Excellence* [redacted]

February 26, 2017

Northwest Nazarene University
Attention: HRRC Committee
Helstrom Business Center, 1st Floor
623 South University Boulevard
Nampa, ID 83686

Re: Research Authorization for Mary Ann VandeBrake

Dear I-IRRC Committee,

Mary Ann VandeBrake has been granted permission to conduct dissertation research in the [redacted] District. Administration of the [redacted] reviewed Mrs. VandeBrake's dissertation proposal, Waiting to Fail: A Comparative Study of Effective School Configurations for At-Risk Sixth Grade Students, including proposed research methods (both qualitative and quantitative methods), subjects, data and collection procedures, and data analysis.

This site authorization is offered with the following stipulations:

- Research is to be conducted between August 2017 and March 2018.
- Participation by [redacted]loyees in the research study is voluntary. .

The school district will receive a copy of the research study results and/or dissertation.

I support this effort and will provide assistance for the successful research implementation of the proposed study.
If you have any questions, please call me at [redacted]
Sincerely,

[redacted]

[redacted]

February 15, 2017

Northwest Nazarene University
Attention: HRRC Committee
Helstrom Business Center
1st Floor 623 S. University Boulevard
Nampa, ID 83686

RE: Research Proposal Site Access for Mrs. Mary Ann VandeBrake

Dear HRRC Members:

This letter is to inform the HRRC that [redacted] has reviewed the proposed dissertation research plan including subjects, assessment procedures, proposed data and collection procedures, data analysis, and purpose of the study. Mrs. VandeBrake has permission to conduct her research study at [redacted] The authorization dates for this research study are September 15 — January 31, 2018.

Respectfully,

[redacted]

[redacted] [redacted]
SCHOOL DISTRICT

September 26, 2017

Northwest Nazarene University
Attention: HRRC Committee
Helstrom Business Center
1st Floor 623 S. University Boulevard
Nampa, ID 83686

RE: Research Proposal Site Access for Mrs. Mary Ann VandeBrake

Dear HRRC Members:

This letter is to inform the HRRC that [redacted] has reviewed the proposed dissertation research plan including subjects, assessment procedures, proposed data and collection procedures, data analysis, and purpose of the study, including the de-identification of all data and to maintain security of information. Mrs. VandeBrake has permission to conduct her research study at [redacted]. The authorization dates for this research study are October 1, 2017 – January 31, 2018.

Respectfully,

[redacted]

March 9, 2017

Northwest Nazarene University
Attention: HRRC Committee
Helstrom Business Center
1st Floor 623 S. University Boulevard
Nampa, ID 83686

RE: Research Proposal Site Access for Mrs. Mary Ann VandeBrake

Dear HRRC Members:

This letter is to inform the HRRC that [redacted] has reviewed the proposed dissertation research plan including subjects, assessment procedures, proposed data and collection procedures, data analysis, and purpose of the study. Mrs. VandeBrake has permission to conduct her research study at [redacted] The authorization dates for this research study are September 15, 2017 – January 30, 2018.

Respectfully,

Appendix J

Cover Letter for Consent

August 1, 2017

Dear Sixth Grade Families,

This year, I have the opportunity to conduct a research study with your child and his/her classmates as a part of my graduate program at Northwest Nazarene University. The study has been reviewed by the Research Review Committee at Northwest Nazarene University and has been successfully approved.

The benefit that may result from the research is to create an academic environment in which students believe that adults in the school care about their learning and about them as individuals. The procedures are as follows:

- The research project will take place over a period of two months. Students will be interviewed using an action research method involving three open-ended questions.
- Individual interview information will be collected to gain an understanding of why students have positive or negative experiences in school.
- Data will be collected in the form of attendance, academic, and disciplinary records and state assessment scores.
- Participation will involve a combination of these data collection instruments and techniques.
- Student data collection will be from August 2017 – January 2018.

I anticipate that there is minimal risk involved for your child's learning over the course of the study. The three question interview process is estimated to take 15 minutes and will be conducted by myself and [redacted]

Your child's participation in this project is completely voluntary. In addition to your permission, your child will also be asked if he or she would like to take part in this project. Any child may stop taking part at any time. The choice to participate or not will not impact your child's grades or status at school.

All information that is obtained during this research project will be kept strictly secure and will not become a part of your child's school record. The results of this study may be used for a research paper and presentation. Pseudonyms or codes will be substituted for the names of children and the school. This helps protect confidentiality.

In the space at the bottom of this letter, please indicate whether you do or do not want your child to participate in this project. The second copy is to keep for your records. If you have any questions about this research project, please feel free to contact me either by mail, e-mail, or telephone. Please keep a copy of this form for your records.

The results of my research will be available after January 1, 2018. If you would like to have a copy of the results of my research or have any questions, please contact me at

Sincerely,

Mary Ann VandeBrake

Appendix K

Informed Consent Form

A. PURPOSE AND BACKGROUND

An NNU research team, in the Department of Graduate Education at Northwest Nazarene University is conducting a research study related to how school configurations impact sixth grade student's achievement and sense of school belonging in the [redacted] District. We appreciate your involvement in helping us investigate how to better serve and meet the needs of students and staff in your school district.

You are being asked to give consent for your child to participate in this study because they will be involved in a survey and maybe involved in a focus group interview. Their participation will help researchers and the school district make decisions about school configurations throughout the district and other districts in the Northwest.

B. PROCEDURES

If you agree to be in the study, the following will occur:

1. You will be asked to sign an Informed Consent Form giving permission for your child to participate in this study.

2. Your child will be asked to participate in the Hemingway Measure of Adolescent Connectedness for pre-adolescents consisting of 15 questions during school in October.

3. Your child may be asked to participate in a short focus group with a Puyallup school district staff member and their peers. In this focus group they will be asked to answer a set of focus group questions and engage in a discussion on school connectedness. This discussion will be videotaped and is expected to last approximately 30-45 minutes.

These procedures will be competed at a location mutually decided upon by the participant and researcher and will take a total time of about 60 minutes.

C. RISKS/DISCOMFORTS

1. If the discussion questions may make your child uncomfortable, they are free to decline to answer any questions they do not wish to answer or to stop participation at any time.

2. For this research project, the researchers are requesting demographic information. Due to the make-up of the subpopulation, the combined answers to these questions may make an individual person identifiable. The researchers will make every effort to protect confidentiality. However, if you are uncomfortable answering any of these questions, your child may decline to answer them.

3. Confidentiality: Participation in research may involve a loss of privacy; however, your records will be handled as confidentially as possible. No individual identities will be used

in any reports or publications that may result from this study. All data from notes, videotapes, and external storage devices will be kept in a locked file cabinet in the researcher's office and the key to the cabinet will be kept in a separate location. In compliance with the Federalwide Assurance Code, data from this study will be kept for three years, after which all data from the study will be destroyed (45 CFR 46.117).

D. BENEFITS
There will be no direct benefit to your child from participating in this study. However, the information they provide may help educators to better understand how school configurations and a sense of school connectedness is impacting academic success in your school district.

E. PAYMENTS
There are no payments for participating in this study.

F. QUESTIONS
If you have questions or concerns about participation in this study, you should first talk with the investigator. Mrs. Mary Ann VandeBrake can be contacted via email

Should you feel distressed due to participation in this, you should contact your own health care provider.

G. CONSENT
You will be given a copy of this consent form to keep.

PARTICIPATION IN RESEARCH IS VOLUNTARY. Your child is free to decline to be in this study, or to withdraw from it at any point. Your decision as to whether or not to participate in this study will have no influence on your present or future status as a student in the [redacted] School District.

Name of Student: _____

I give my consent for my child to participate in this study:

_____ _____
Signature of Parent/Guardian of Participant **Date**

I give my consent for the interview and discussion to be videotaped in this study:

_____ _____
Signature of Parent/Guardian of Participant **Date**

I give my consent for direct quotes to be used in this study:

_____ _____

Signature of Parent/Guardian of Participant **Date**

Signature of Person Obtaining Consent **Date**

THE NORTHWEST NAZARENE UNIVERSITY HUMAN RESEARCH REVIEW COMMITTE HAS REVIEWED THIS PROJECT FOR THE PROTECTION OF HUMAN PARTICIPANTS IN RESEARCH.

Appendix L

Confidentiality Agreement

Title of Research Project: Waiting to Fail: A Comparative Study of Effective School Configurations for At-Risk Sixth Grade Students

Local Principal Investigator: [redacted]

As an assistant to the research team I understand that I may have access to confidential information about study sites and participants. By signing this statement, I am indicating my understanding of my responsibilities to maintain confidentiality and agree to the following:

- I understand that names and any other identifying information about study sites and participants are completely confidential.

- I agree not to divulge, publish, or otherwise make known to unauthorized persons or to the public any information obtained in the course of this research project that could identify the persons who participated in the study.

  - I understand that all information about study sites or participants obtained or accessed by me in the course of my work is confidential. I agree not to divulge or otherwise make known to unauthorized persons any of this information, unless specifically authorized to do so by approved protocol or by the local principal investigator acting in response to applicable law or court order, or public health or clinical need.
  - I understand that I am not to read information about study sites or participants, or any other confidential documents, nor ask questions of study participants for my own personal information but only to the extent and for the purpose of performing my assigned duties on this research project.

- I agree to notify the local principal investigator immediately should I become aware of an actual breach of confidentiality or a situation which could potentially result in a breach, whether this be on my part or on the part of another person.

[redacted]	4-5-17	[redacted]
	Date	Signature Printed name
M. Vande Brake	April 4, 2017	Mary Ann VandeBrake
Signature of local principal investigator	Date	Printed name

Appendix M

School Connectedness Domains

Master Sheet of Domains that Support School Connectedness

Domain 1 Personalized connections
Excerpts:
"She helps me cuz if there's a word I don't understand or like something that I need help with, I can just go to her and then she like helps me with it at any time and she's really easy to work with, she's a really good teacher."
"I mean how Miss Jones helps me not academically is about my anxiety and stuff, she says like nobody will judge you in like you'll do great. I like how she lets me choose what the class is going to do next because she really trusts me and so it's really helpful to know that she can relate to some of the things I'm going through."

Domain 2 Supportive environments
Excerpts:
"…he usually helps me because he notices I'm wheezing…he always reminds me to take my inhaler…" "Some teachers I don't like because when I didn't do anything, they said I did something and I would get blamed...they would yell at me when I raise my hand to explain." "…if we reported something, like if someone was bullying somebody, she would talk to them. "Don't do that" or "Leave that kid alone" or she would help others." "They don't deserve kids yelling at them because they're trying to teach you [*sic*] life skills so that you could have a better life and a really good job. It's just incredibly disrespectful because they chose this job to help you and they like [*sic*] do all this for you and not for themselves."

Domain 3 Engaging classrooms
Excerpts:
"She was awesome, like she was funny and always played games…if we did something, she would say, silent ball time and she would say if we do good we could have free time and go on the computers and play games …but then on Fridays we could go outside and have extra recess and play games." "It's just really easier here because there's not too many people like cuz [*sic*] the bigger environment really worries me," and "Mrs. Smith's class is full of a bunch of colors and superheroes which kid of wakes me up." Another attribute included instructional changes to engage students, as stated by this alternative student, "The classes are dull and they just make you sit down and listen to a lecture or something….it helps when there's a learning game called Kahoots."

Domain 4 Structured expectations
Excerpt:
"She is always honest with me. If I'm not doing something right, she'll tell me. If it's something too bad, she would punish me or she would tell me what I was doing right or wrong."

“She won’t yell at you, but will talk with you in a normal voice.” They don't deserve kids yelling at them because they're trying to teach you [sic] life skills so that you could have a better life and a really good job. It's just incredibly disrespectful because they chose this job to help you and they like [sic] do all this for you and not for themselves.

Appendix N

Archival Codes

Secondary Source – Archival			
Themes for Archival by configuration	Lesson Plans	Handbook	Photos
Elementary Structured Engaging Formal	Aligned Textbook driven Thematic Ability grouping Structured Direct instruction Small Grouping Warm-up	Structured District format Basic Policy	Academic Colorful Traditional-seating Organized Procedural Classroom expectations
Middle School Supportive Student focused Structured	Guiding question student-friendly objective Learning activities individual components Assessment Multiple modalities High expectations High student engagement Motivating activities Expectations listed	District Format Policy based Additional support times Uniform requirements	Student work Academic expectations Extracurricular events
Alternative Set Expectations Supportive Student Focused	Use of "I can" statements Mini-lessons Assessment Instruction of classroom procedures Use of multimedia Modeling Provide background knowledge Flexible grouping Formative assessment Give the reason "Why" a skill is taught. Instructional sequence Expectations listed Provide prior knowledge	District format Positive school expectations Individualized Reward Monitored structured	Student work Prevention messages Flexible seating Collaborative arrangement Academic expectations Motivational posters
Supportive Engaging Student Focused Structured Set Expectations			

Appendix O

School Configuration Primary Coding

Primary Source	
Domains for each configuration	Interviews Teacher attributes
Elementary Supportive Fun Set Limits Kind Personalized Negative aspects Yell at me Blamed	Free Time Cool Funny x Played games xx Take us outside x x Listens to me Her favorite Awesome Real chill Nice x Cared for Stand up for us Help Stand up for us Help others Punish me Privately talk Not yell Honest Indicates repeated terms Not included term
Middle School Kind Personalized Supportive	Perceptive to feelings – cheer me up Check in Help me xx Nicex Smile
Alternative I Relationship building II Personalized III Supportive Set Limits Fun	Pronounce my name correctly Relates xx Tells us stories about self Trusts x Helps me to understand xx Come in during lunch Spend time with me Private conversations Listens Positive comments Reminds me x Cares x Wants teachers to get mad at kids who deserve it Teachers don't deserve bad behavior Know boundaries/give look Learning games Kahoot Appealing classrooms Smaller size
Common attributes	Personalized Supportive Fun Set Limits