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Program Evaluation on the Implementation of a Middle School Concept in Private Christian Schools

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Program Evaluation on the Implementation of a Middle School Concept in Private
Christian Schools

By
James Chapman Hall

A Dissertation Submitted to the
Gardner-Webb University School of Education
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Education

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Approval Page

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Abstract

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The purpose of this study was to determine the level of implementing a middle school concept in three private Christian schools using Daniel Stufflebeam's CIPP model of program evaluation. The National Middle School Survey was used to measure faculty and administrative perceptions of both the value and actual implementation of middle school concepts that to this point have not been formally evaluated in each school. Additionally, student levels of cognitive and psychological engagement and global life satisfaction were measured using the Student Engagement Instrument and Multidimensional Students' Life Satisfaction Scale.

The following evaluation questions were the focus of this study in the evaluation of each private Christian school program: (1) What were the perceptions related to adolescent needs that led to the establishment of a distinct middle school program; (2) What opportunities were afforded teachers to receive training in the process of implementing components of the middle school program; (3) What opportunities were afforded teachers to have questions or concerns addressed during training and implementation of a middle school concept; (4) To what level are the characteristics of adolescent education ("middle school concept") being implemented; (5) According to the Student Engagement Instrument, what are current levels of psychological and cognitive engagement in each school's adolescent population; and (6) According to the Multidimensional Student Life Satisfaction Scale, what are the current levels of global life satisfaction in each school's adolescent population?

A mixed-methods approach was used in collecting both qualitative and quantitative data in answering each of the evaluation questions. In conclusion, recommendations for each program and future research needs were discussed.

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Chapter 1: Introduction

Introduction

The vulnerability of adolescents' self-concept during the middle school years cannot be argued (Parker, 2009). As stated by Muller and Ellison (2001), "Adolescence is at once a time of opportunity, turmoil, and alienation" (p. 155). Adolescence is often characterized by students who are uninvolved, apathetic, and discouraged; and even without a consideration of demographic-related risks, academic and behavioral declines during this period are prevalent and well documented (Appleton, Christenson, & Furlong, 2008). General declines are observed in the quality of relationships between teachers and students' school-related attitudes and motivation, as well as student perceptions of support from teachers (Anderson, Christenson, Sinclair, & Lehr, 2004).

Despite transitional declines, the effective characteristics of adolescent education, what is termed the "middle school concept," leads to high achievement when implemented with fidelity in a manner that brings about an authentic change in curriculum, assessment, and instruction (Jackson & Davis, 2000). In attempting to establish developmentally responsive schools, the number of middle schools has nearly tripled since 1970, and the middle school concept as originally proposed by William Alexander in 1963 remains valid in practice and supported in middle school literature (McEwin & Greene, 2011). For more than 50 years, the middle school movement remains unmatched as the most powerful factor for improving the performance of adolescents transitioning through middle school (Erb, 2006).

Despite acceptance of early adolescence as a distinctive period of development (Caskey & Anfara, 2014), research on the implementation of middle school programs in private schools and the degree of adolescent transitional difficulties specific to these

unique school environments and student populations is largely an unknown (Atkinson, 2010). The purpose of this present study was to determine the level of implementation of a middle school concept in three private Christian schools, which to this point have not been formally evaluated. Private schools are largely autonomous environments that operate with minimal accountability to state standards, and the repeated message of private school superiority leads people to assume that private schools are more effective at increasing student achievement and minimizing adolescent academic and affective declines (Ryan, 2013). Of the 715 private schools in North Carolina (North Carolina Department of Administration, 2014), each operating in independent environments, programs will inevitably vary in their conception and organization of how to meet the diverse needs of adolescents. Embracing this variability of practice, modern program evaluation has evolved to focus primarily on the inclusion of stakeholders and addressing their individual needs (Fitzpatrick, Sanders, & Worthen, 2012).

Moving beyond strictly objectives-based methods of the past, evaluation is defined as the identification, clarification, and application of defensible criteria to determine an evaluation object's value in relation to those criteria (Fitzpatrick et al., 2012). Evaluating the fidelity of implementation against the 16 essential characteristics of the middle school concept (Association for Middle Level Education [AMLE], 2010) is the criterion upon which to ultimately make formative and summative judgments of a middle school program and determine how to effectively meet the needs of adolescents. Along with measuring implementation of the middle school concept, levels of cognitive and psychological engagement and global life satisfaction (GLS) were assessed as the cognitive and psychological state of adolescents is an essential goal of education and therefore program evaluation (Lewis, Huebner, Malone, & Valois, 2011). Evaluation is

aimed at providing specific information on a program without being concerned with generalizability to other settings (Fitzpatrick et al., 2012), as private school stakeholders of this study recognized the need to measure the degree to which each program is alleviating the common academic and emotional declines of adolescence. Program evaluation ultimately allows stakeholders to cultivate a critical intelligence, a method of assisted sense-making, by articulating and stimulating dialogue about criteria and appraising the merit or worth of programming (Fitzpatrick et al., 2012). Formal evaluation performed for this study was targeted on programming that has been specifically designed to meet the unique needs of adolescents in the transition to middle school within varied Christian school environments.

Nature of the Problem

Research suggests that for certain students, early adolescence marks the beginning of a downward academic spiral and the magnitude of this decline is predictive of subsequent school failure and dropout (Eccles et al., 1993). With middle school often being accompanied by declines in adolescent academic achievement and motivation (Dotterer, McHale, & Crouter, 2009; Seidman, Aber, & French, 2004), students' sense of relatedness and student-teacher relationship quality also tend to decrease following this critical transition (Furrer & Skinner, 2003). Similar developmental declines have been documented by foundational studies for such adolescent motivational aspects as interest in school (Epstein & McPartland, 1976); intrinsic motivation (Harter, 1981); self-concepts and self-perceptions (Eccles, Midgley, & Adler, 1984; Harter, 1982; Simmons, Blyth, Van Cleave, & Bush, 1979); and confidence in one's intellectual abilities, especially following failure (Parsons & Ruble, 1977).

In a more general sense, the transition to middle school includes changes in

adolescents' larger academic orientations; and although students can begin school with moderate levels of academic direction and focus, they can experience significant declines over time (Crosnoe, 2001). Even in private school environments, as the school setting changes from the task-oriented, more personalized elementary school to an achievement-oriented, impersonal, and departmentalized middle school, the cumulative effect of increasing life changes in early adolescence (school transition, pubertal development, early dating behavior, residential mobility, and family disruption) results in a decreased grade point average (Simmons, Burgeson, Carlton-Ford, & Blyth, 1987). As stated by George and Alexander (2003),

Striving for independence and a sense of identity, most middle schoolers undergo the common difficult task of balancing the pressures of family, friends, church, community, and school, with the desire to define a value system that fits their own needs, while experiencing phenomenal changes intellectually, physically, and otherwise. (p. 5)

There are false presumptions in middle-level education that the school's concern for students takes away from its academic responsibilities, but this is more an example of the unwillingness of critics to recognize the difference between the "middle school concept" and the middle school as it is commonly practiced (Lounsbury, 2009). The true middle school concept has not been practiced and found lacking; rather it has been found difficult to implement fully and is practiced only partially as a result of misdirected actions based on pressures from high-stakes testing and a lack of administrators who understand the tenets of effective adolescent education and strongly support authentic implementation of a middle school concept (Lounsbury, 2009).

Traditionally middle school classrooms are not developmentally appropriate

educational environments for young adolescents; and as a result of this poor fit, adolescents experience declines in academic functioning (Eccles & Midgley, 1989). Often, student perceptions of the existing classroom environment and teachers are in stark contrast to the academic and social developmental needs of young adolescents (Jackson & Davis, 2000). Increases in teacher control, an increased focus on discipline, whole task organization, ability grouping, and public grading, along with decreases in positive student-teacher relationships, decision-making opportunities, and challenging assignments, are typical environment mismatches experienced by young adolescents across the transition to middle school (Eccles et al., 1993). Over the past several decades, research has shown that during early adolescence these mismatches have resulted in the increase of such negative motivational and behavioral characteristics as test anxiety (Hill, 1980), learned helplessness responses to failure (Rholes, Blackwell, Jordan, & Walters, 1980), focus on self-evaluation rather than task mastery (Nicholls, 1980), truancy, and eventually school dropout (Rosenbaum, 1976). Although these changes are not extreme for most adolescents, there is sufficient evidence of a more common gradual decline in various indicators of academic motivation, such as attention in class, school attendance, and self-perception, especially over the early years of adolescence (Eccles et al., 1993).

As concerns the experience of public versus private school adolescents in relation to these developmental and transitional declines, research is insufficient and data are simply unavailable (Atkinson, 2010). On average, each of the three subject schools of this study have had middle school programs in existence for over 2 decades; and to this point no formal evaluation has taken place to determine the level of fidelity with the essential characteristics of adolescent education. For the purposes of comparison, due to the variability in assessments used in public and private schools, comparisons were

unable to be made on a state or regional level. In addition, national-level comparisons are complex depending on the particular combination of demographic factors selected and how they are used in analysis (Yettick, 2014). Similar to other studies, data from the National Assessment of Educational Progress (NAEP) consistently demonstrates a higher average achievement level for adolescents in private schools, but these differences are attributed to higher levels of socioeconomic status (SES) and prior achievement (Wenglinsky, 2007). A controversial body of research questioning the conventional wisdom that private schools are superior to their public counterparts is growing, but as stated by Weaver-Hightower (as cited in Yettick, 2014),

In the end, no study of public versus private schooling is going to be methodologically perfect. It's just too complicated to try to find a definitive answer when the sectors are so diverse, the confounding factors so many, and the data sets so limited. (p. 22)

Although limited in being able to definitively compare student achievement at a national level, NAEP data do show general similarities in public and private school adolescents' attitudes toward mathematics; but there are significant differences when students responded to the statement that math work is too easy (National Center for Education Statistics [NCES], 2013e). Mathematics is considered the subject most immune to differences in SES and therefore the best measure of in-school learning (Bryk, Lee, & Holland, 1993; Heyneman 2005). According to NAEP data, public school eighth graders varied significantly from private school eighth graders in the percentage considering math work is never or hardly ever/sometimes too easy, with 10% more private school students agreeing (NCES, 2013e). Additionally, there is a significant difference in students responding often or always/almost always that math work is too

easy, with 9% more of public school adolescents agreeing (NCES, 2013e). Despite higher test scores in every category of student attitudes toward mathematics, the assumption of a private school advantage is largely due to private schools serving a more affluent student population and not simply because they are educationally superior or engaging students with more challenging curriculum (Strauss, 2013). According to Lubienski and Lubienski, “public schools have moved beyond traditional, repetitive exercises, and more often ask students to solve complex, real-world problems and to learn geometry, data analysis, and early algebra ideas, in addition to basic arithmetic” (as cited in Strauss, 2013, para. 10).

Further complicating the differences highlighted by various studies is viewing the experience of adolescence in the context of parent choices, with choice as a defining characteristic of private education as families choose private schools and private schools choose which students to accept (Alt & Peter, 2002). In the educational marketplace, both public and private school students are viewed more as clients whose individual needs must be addressed by a wide variety of schooling options that maximize freedom of choice and multiple pathways to social mobility (Lauen, 2007). As evidenced from research about how parents make these decisions, parents consider reputations, convenience, safety, or the value systems that are associated with private schools (Ryan, 2013). Even more important may be the fact that parents are making choices based on the peer group they are selecting for their students, which does have an impact on a student’s performance regardless of school type (Ryan, 2013). Parental choice introduces the need for organizational-level analysis in an attempt to identify the prime environmental and social organizational dimensions that distinguish public education from private (Bidwell & Dreeben, 2003), therefore necessitating formal evaluation to

give a broader view of middle school programs in private school environments.

Despite limited data, differences in the experiences of public and private school adolescents on a national level are evident but complex and inadequate (Yettick, 2014). In addition, with state and local comparisons unavailable, formally evaluating each individual school's implementation level of the essential characteristics of the middle school concept becomes essential to provide sufficient information needed to judge the adequacy of meeting the unique cognitive and affective needs of isolated adolescent populations in private Christian schools.

Purpose of the Study

The purpose of this study was to determine the level of implementing a middle school concept in three private Christian schools. A program evaluation using the CIPP Model (Context, Inputs, Process, and Products) developed by Stufflebeam (1968) was conducted with the goal of assessing the impact of implementing middle school characteristics and current levels of student engagement and GLS. The CIPP model of program evaluation focuses on improvement by placing priority on guiding planning and implementation of development efforts (Stufflebeam & Shinkfield, 2007). By evaluating an entity's context, inputs, processes, and products, the CIPP model uses a comprehensive framework to serve in both a formative role and summative role to assess and improve services and target the needs of rightful beneficiaries (Stufflebeam & Shinkfield, 2007).

Student engagement is considered by researchers to be flexible and responsive to contextual features and therefore must be studied as a multifaceted construct (Fredricks, Blumenfeld, & Paris, 2004). Engagement is viewed as a meta-construct comprised of four subtypes: academic, behavioral, cognitive, and psychological (Appleton,

Christenson, Kim, & Reschly, 2006). The cognitive and psychological dimensions were the focus of this study due to previous research focusing primarily on academic and behavioral dimensions and the necessity of moving beyond these external indicators to understand the underlying cognitive and psychological needs of students (Appleton et al., 2006). The literature leads one to conclude that the transitional difficulties of adolescents will be minimized with the higher, more faithful implementation of the effective characteristics of adolescent education, resulting in an increase in cognitive student engagement and GLS, including school satisfaction.

Student engagement is increasingly being isolated by researchers, educators, and policymakers as the key to addressing the low achievement and disconnection that characterize adolescence (Fredricks et al., 2004). With student engagement emerging as the critical variable in dropout prevention (Anderson et al., 2004) and the cornerstone of school reform efforts at the middle and high school levels (Appleton et al., 2006), the underlying assumption in adolescent education is that student engagement is the mediator between learning contexts and student achievement (Fredricks et al., 2004).

Unfortunately, researchers tend to examine aspects of context separately rather than considering how the pattern of contextual variables working together influences the multidimensional meta-construct of student engagement (Fredricks et al., 2004). Despite this limitation, the view of engagement as malleable and multifaceted; and an interaction between the individual and academic environment promises to help educators better understand the complexity of adolescent experiences in school and to design more specifically targeted and tailored interventions (Fredricks et al., 2004). As the body of research grows in verifying the links between classroom environments, school engagement, and academic achievement (Dotterer & Lowe, 2011), the potential link of

student engagement is seen as the antidote for the signs of student alienation that have come to typify the transition to middle school (Fredricks et al., 2004).

With far too many students being bored, unmotivated, and disengaged from the academic and social aspects of middle school life (Appleton et al., 2008), researchers have recently established a second critical relationship between adolescent students' positive subjective well-being (SWB) and their levels of engagement in schooling, signaling that general life satisfaction appears to also play an important role in adolescents' adaptation to middle school (Lewis et al., 2011). Happiness or SWB is a relevant but often neglected aim of student education (Noddings, 2003); and similar to studies of adults, life satisfaction appears to play an important role in adolescents' overall adaptation (Lewis et al., 2011). Despite the relative lack of studies focusing on the associations between life satisfaction and school-related variables such as academic achievement and behavior with children and adolescents (Suldo, Riley, & Shaffer, 2006), the differential associations between life satisfaction and student engagement variables provide support for multidimensional models of student engagement that can potentially increase the achievement of adolescents in transition (Lewis et al., 2011).

The problem of middle school transition difficulties and associated declines in student engagement and overall life satisfaction signals a need for implementing the middle school concept with fidelity in middle schools of all types as the connection between middle school best practices and the cognitive needs of students is apparent in middle-level research (Gilman & Huebner, 2003). As seen in the Figure, within the larger framework of a private school setting are the main constructs of student engagement, GLS (SWB), and school satisfaction impacted by the fidelity of implementing a middle school concept. School satisfaction comprises one part of a

student's SWB or GLS and will be isolated as a key outcome relating ultimately to the degree of life satisfaction and cognitive student engagement. The level of implementing a middle school concept within a private school environment ultimately mediates the relationship between each construct; nevertheless, the primary purpose of program evaluation is not to advance knowledge or theory of past research (Fitzpatrick et al., 2012). According to the Joint Committee on Standards for Evaluation, the characteristics to judge adequacy of evaluation are the accuracy, utility, feasibility, and propriety of information collected (Fitzpatrick et al., 2012). Evaluation must correspond with the reality of each private school while serving the practical needs for information in a prudent and diplomatic manner that is performed both legally and ethically (Fitzpatrick et al., 2012).

Significance of the Problem

At the heart of adolescent education is the need for a challenging, exploratory, integrative, and relevant curriculum and instructional methods that emphasize multiple learning approaches and collaboration (George & Alexander, 2003). The low ranking of American adolescents on international assessments, such as the Trends in International Mathematics and Science (TIMSS) and the Program for International Student Assessment (PISA) so frequently cited by researchers, does raise the issue of the need to develop a more globally conscious education for all adolescents by identifying those essential global skills being assessed (Mansilla & Jackson, 2011). This argument continues to gain traction despite objections that no paper-and-pencil test can mimic "real world" interactions (Bracey, 2008a). The middle school concept is intended to foster the kind of flexibility in thinking that is absolutely essential for success in the 21st century global environment while bringing the curriculum a step closer to the needs of students as

teachers and students co-construct the experience of learning (Andrews, 2008).

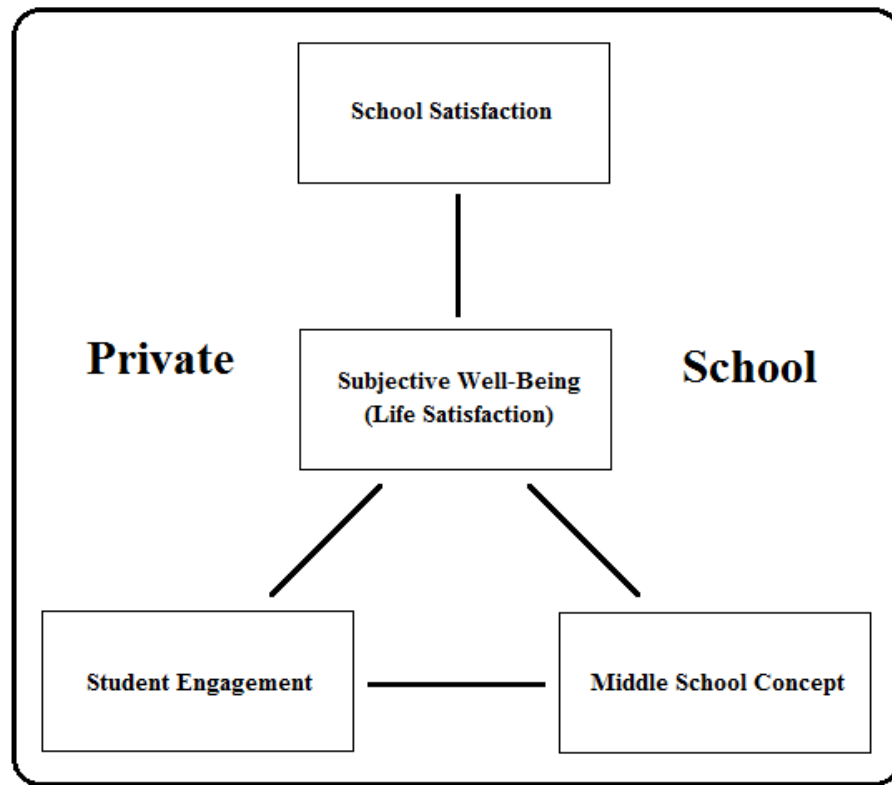


Figure. Theoretical Framework.

Adolescent education in the United States has been designed over the past few decades to be developmentally responsive to the needs of adolescents by emphasizing more actualized learning and formulating of individualized content and meaning for each student with the goal of making middle school curriculum more integrative, inquiry-based, and cooperative (McEwin & Greene, 2011). With its focus on student-centric learning, meaningful connections to real-world issues, and student relationships, a more integrated approach to curriculum provides strong support for alleviating the problems associated with the transition to middle school (Andrews, 2008). Studies show that the faithful implementation of the effective characteristics of adolescent education over time

will result in higher levels of student achievement and improved social and emotional development of adolescents (AMLE, 2010). Nevertheless, the key to instruction with adolescents is to build upon the concerns of the students and develop relationships for learning (Jackson & Davis, 2000). Since its inception, the middle school concept has had two prime foundations, the accepted principles of learning and the unique nature and needs of young adolescents (Lounsbury, 2009).

The effectiveness of adolescent education has always been viewed in terms of skills, dispositions, and habits of mind that have been developed and not what courses have been passed; skills and attitudes emphasized over possession of certain bodies of knowledge (Lounsbury, 2009). The sustained engagement in high levels of middle school practices positively impacts student achievement scores over time (Flowers, Mertens, & Mulhall, 2003). Despite the support of research for adolescent education to improve student outcomes, the variable of the timing of school transitions should not be used to defeat the middle school concept; but it is independent from whether the middle school concept was faithfully implemented (Erb, 2006). The middle school concept, in order to be truly effective, must be implemented in healthy schools (Erb, 2006). The problems adolescents face in the transition to middle school are not problems with the schools but with providing the unique and individualized supports vital to positive adolescent development (George, 2009b).

The middle school concept has evolved with research over the last several decades that emphasizes the transitional needs of adolescents in forming the basis for a unique educational approach to middle school students while paralleling the growing need for more global skills (Mansilla & Jackson, 2011). This renewed emphasis to compete globally has put the focus on acquiring “21st century skills” that include the

ability to use critical and creative thinking strategies; analyze and evaluate global issues from multiple perspectives; understand how international systems are interdependent; be proficient in multiple languages; collaborate in diverse cultural situations; use digital media and technology to access relevant and credible information; and to make ethical decisions and responsible choices that contribute to the development of a more sustainable world (Jackson, 2009). The acquisition of these newly emphasized global skills is achieved through educational systems that emphasize high universal standards, accountability balanced with autonomy, strengthened teacher professionalism, and personalized learning for students (Schleicher & Stewart, 2008).

With the increasing emphasis on multiple international assessments to measure student achievement, the American adolescent consistently achieves little better than an average ranking in comparison with participating countries (NCES, 2011). This recent trend in comparing student performance internationally has, according to PISA results, placed American middle school students significantly behind higher performing countries in the areas of reading, mathematics, and science (Organization for Economic Cooperation and Development [OECD], 2010). PISA administers international assessments every 3 years in the subjects of reading, mathematics, and science to students age 15 due to the fact that students at that age are near the end of their compulsory schooling. Low rankings on international assessments could indicate a failure in adolescents acquiring those necessary skills to succeed in an interconnected global economy (Stewart, 2005). Adding to this, the transition difficulties and overall disconnection adolescents experience could indicate not only a pedagogical problem in middle-level education but a future problem of global position and prosperity, which is a concern of public and private school stakeholders.

In order to achieve consistently high results on international assessments such as PISA and be better prepared to succeed in the interconnected world of the 21st century, there has been a recent redefinition of literacy (OECD, 2010). In top performing countries this emphasis on increasing global skills has led to an innovative concept of “literacy” that refers both to a student’s capacity to apply knowledge and the ability to analyze, reason, and communicate effectively to solve problems in a variety of situations (OECD, 2010). The significance of low international assessment rankings in comparison with high ranking countries is that the United States may be decreasing its human capital and therefore jeopardizing its economic output of the future (Schleicher & Stewart, 2008). The middle school concept has the dual responsibility of alleviating the effects of transition while at the same time preparing adolescents for the needs of an increasingly globalized workforce. As stated by Dall (2011), “Competitiveness in the global economy has led to competition in the educational area, since one is assumed to be based on the other” (p. 10). The need to compare student achievement across geographical boundaries is the need to measure a nation’s economic growth which is largely dependent on the quality of its human capital (Dall, 2011). As stated by Gokce and Celep (2011), “it is not possible to isolate a country’s education system from its social, political, economic, and cultural structure” (p. 547). Evaluating individual private schools for implementation levels of middle school concept characteristics provides information relative to the needs of individual stakeholders while simultaneously reflecting the needs of our educational system as a whole.

Evaluation Questions

1. What were the perceptions related to adolescent needs that led to the establishment of a distinct middle school program?

2. What opportunities were afforded teachers to receive training in the process of implementing components of the middle school program?
 - a. What are the administrative perceptions of the opportunity for teachers to receive adequate training in the process of implementing components of the middle school program?
 - b. What are the faculty's perceptions of the opportunity to receive adequate training in the process of implementing components of the middle school program?
3. What opportunities were afforded the faculty to have questions or concerns addressed during training and implementation of a middle school concept?
 - a. What are the administrative perceptions of the opportunity for teachers to have questions or concerns addressed during training and implementation of a middle school concept?
 - b. What are the faculty's perceptions of the opportunity to have questions or concerns addressed during training and implementation of a middle school concept?
4. To what level are the characteristics of adolescent education ("middle school concept") being implemented?
 - a. What are the administrative perceptions on the implementation of the essential characteristics of adolescent education?
 - b. What are the faculty's perceptions on the implementation of the essential characteristics of adolescent education?
5. According to the Student Engagement Instrument (SEI), what are the current levels of psychological and cognitive engagement in each school's adolescent

population?

6. According to the Multidimensional Student Life Satisfaction Scale (MSLSS), what are the current levels of GLS in each school's adolescent population?

Setting

The middle school concept started with the need to replace the junior high model due to its extreme subject specialization, departmentalization, and extensive extracurricular activities (McEwin & Greene, 2011). Since the early 20th century, the junior high model had simply been too secondary as having identical elements of the high school program resulting in adjustment problems for students coming from the predominantly self-contained classrooms of elementary school (George & Alexander, 2003). Students eventually started to disengage, and the philosophical shift to build on the elementary while leading toward the high school was birthed while having a greater emphasis on the unique nature of early adolescence and the need for more personal development both socially and academically (George & Alexander, 2003).

By the 1960s, the middle school movement replaced junior high as the dominant organizational plan with most middle schools consisting of Grades 6-8 (McEwin & Greene, 2011). Over the next 4 decades, major surveys were performed in 1968, 1988, 1993, and 2001 to measure the degree of implementing developmentally responsive and effective programs and practices of adolescent education (McEwin & Greene, 2011). The establishment of a middle school concept culminated in 1989 with the Carnegie Corporation of New York's report, *Turning Points: Preparing American Youth for the 21st Century*, that empirically stated developmentally appropriate educational experiences were being implemented effectively and that these experiences produced the positive outcomes educators and parents desired (Jackson & Davis, 2000). Since the

publication of this seminal report, the research and literature have further established the unique and transitional needs of adolescents and the effectiveness of implementing distinct and developmentally appropriate adolescent education (Erb, 2006).

The evaluation of the implementation of a middle school concept and levels of student engagement, school, and life satisfaction will reflect the unique environmental factors that distinguish private schools from public. Private schools typically have smaller student enrollments, lower percentages of Black and Hispanic students, fewer Limited English Proficiency (LEP) students, as well as the unique characteristic of parental school choice and school admission requirements (Alt & Peter, 2002). The public-private distinction is secondary to fundamental dimensions of school organization, with academic curriculum having become more standardized for both public and private schools around state mandates following worldwide patterns of convergence for teaching basic elementary school skills and high school graduation requirements (Bidwell & Dreeben, 2003).

As with the setting for this study, most private elementary and secondary school students in the United States attend parochial schools, but few of the empirical and theoretical studies on private schooling have directly taken into account the effects of religion and religiosity (Cohen-Zada & Sander, 2008). The subject schools for this study were parochial schools with unique characteristics in comparison to other private schools since religiosity is a key factor that affects who attends private schools (Cohen-Zada & Sander, 2008). Additionally, it is easier for private schools to form “adaptive communities” in which there is school-wide problem solving and experiential learning which insures a greater degree of pedagogical consensus with parents, which is exaggerated to even greater degree in parochial schools (Bidwell & Dreeben, 2003).

These unique aspects of a private Christian school setting will inevitably affect the levels of implementing a middle school concept and the resulting levels of school and life satisfaction and student engagement. Even though private schools have consistently outperformed public schools, these outcomes are potentially attributable to prior achievement, SES, and “cultural capital” or engaging in more educational activities that are dependent upon SES and therefore more typical for private school students who the student later draws upon in class and various assessments (Wenglinsky, 2007). Higher levels of religiosity tend to be associated with more favorable educational outcomes, and religiosity as measured by participation is a critical determinant of school choice (Cohen-Zada & Sander, 2008).

Defining the Variables

For the purpose of this study, the following terms have been defined.

Middle school concept. The 16 characteristics when implemented with high fidelity define effective adolescent education (AMLE, 2010). Each of the 16 practices is organized around the following categories: (1) curriculum, instruction, and assessment; (2) leadership and organization; and (3) culture and community (AMLE, 2010).

Cognitive student engagement. The psychological investment in strategic learning required to comprehend and master knowledge and skills explicitly taught in schools (Fredricks et al., 2004). Specific attitudes and approaches assessed from self-report measures include self-regulation, understanding the importance of school, students’ investment in learning, and desire for challenge (Fredricks, Blumenfeld, Friedel, & Paris, 2005).

School satisfaction. The students’ subjective, cognitive appraisals of their quality of school life as assessed from self-report measures (Baker, 1998). Making up

one of the five domains of GLS, school satisfaction characteristics specifically include the frequency of the following attitudes: looking forward to going to school, enjoying school activities, feeling bad at school, liking being in school, having things about school one does not like, considering school interesting, wishing to not have to go to school, and believing that you learn a lot at school (Gilman, Huebner, & Laughlin, 2000).

GLS. An individual's overall cognitive appraisal of the quality of his/her life that incorporates but also transcends the immediate effects of life events and mood states by acting as an influence on other behaviors (Gilman & Huebner, 2003). Life satisfaction acts as a key indicator of positive SWB and is assessed from self-report measures of an adolescent's value appraisal for the domains of family, friends, school, living environment, and self (Gilman et al., 2000).

Summary

Each of the three subject schools of this study have implemented middle school programs to meet the unique developmental needs of adolescents, and to this point no formal evaluation has taken place to determine the level of fidelity with the essential characteristics of adolescent education. Therefore, the purpose of this study was to determine the level of implementing a middle school concept in three private Christian schools through formal program evaluation. Although not the primary purpose of program evaluation, this study adds to the generalizable knowledge of the viability of the middle school concept in private school settings. The transition of adolescence is accompanied by varying difficulties associated with school achievement and behavioral engagement, thus an additional goal of evaluation was measuring cognitive aspects of adolescent life and school satisfaction that involve psychological processes that are based on an individual's internal standards (Diener, 1994; Frisch, 1999). Program evaluation is

primary focused on obtaining useful information to make judgments on the value of a program while seeking immediate impact in program improvement particular to the needs of that organization's stakeholders (Fitzpatrick et al., 2012). The private middle schools of this study, which to this point had not been formally evaluated, benefitted in multiple ways as a result of receiving credible, defensible information to guide the collective practices of adolescent education.

Chapter 2: Review of Related Literature

Introduction

The purpose of this study was to determine the level of implementing a middle school concept in three private Christian schools. Each of the three subject schools have implemented middle school programs to meet the unique developmental needs of adolescents and to this point no formal evaluation had taken place to determine the level of fidelity with the essential characteristics of the middle school concept. The schools that implement the characteristics of effective adolescent education, including team teaching, common planning time, and adolescent-appropriate classroom instruction have demonstrated higher student achievement and improvements in achievement scores over time (Flowers et al., 2003), but this improvement should be accompanied by higher self-appraisal of adolescent's school and life experiences. The middle school movement remains unequalled as the most powerful factor for improving the performance of young adolescents (Erb, 2006), and these academic and behavioral improvements should correlate with optimal mental health of middle school students (Gilman & Huebner, 2003). According to current research, the internal standards for positive adolescent satisfaction of school and life should parallel the implementation of the characteristics of the middle school concept that define effective adolescent education.

Middle School Concept

The beginning of the middle school movement came long after the creation of the first junior high school, Indianola Junior High, of Columbus, Ohio in 1909. In 1963 William Alexander was the first to advance the term "middle school," giving birth to the middle school movement which was specifically designed to meet the unique

developmental needs of the young adolescent (Lounsbury, 2009). The failure of the junior high movement was that it was too successful in bringing the high school program down into what had been elementary school grades and being focused too much on subject specialization, departmentalization, and extensive extracurricular activities (McEwin & Green, 2011). The junior high concept had more to do with the concerns of preparing students for college than meeting the unique developmental needs of the adolescent (George & Alexander, 2003).

Originally, the beginning of the middle school concept was due to factors unrelated to providing the best education for young adolescents (George, 2009a). Racial desegregation, in which segregated junior high schools were closed, and ninth grades moved to desegregated high schools, and fifth and sixth grades moved out of segregated elementary schools to create new desegregated middle schools, was an initial impetus for establishing middle schools (George, 2009a). Also, the more full and equitable use of school facilities was a major factor in forming distinct middle schools due to the abundance of underused high schools and overcrowded elementary schools in the second half of the 20th century (George, 2009a). As George (2009a) stated, “This ever-widening movement was a relatively uncoordinated grassroots process that grew over nearly four decades” (p. 4). Despite the fragmented philosophies, differing organizational patterns, and various pedagogies used, the movement came to establish developmentally responsive middle-level schools established upon the two prime foundations of the nature and needs of young adolescents and the accepted principles of learning (Lounsbury, 2009). Specialists have since established a research base that informs educators about this key transitional period of adolescence in which childhood wanes and the adolescent comes into his/her own, roughly between the ages of 10 to 15 (Lounsbury, 2009).

There have been a series of five linked national studies performed over the past 4 decades that measure the authentic implementation of middle school programs and practices across the country (McEwin & Greene, 2011). The first in the series of national studies to focus on the emerging middle school concept was performed by William Alexander in 1968. Using a random stratified sample of 110 middle schools, this comprehensive 1968 survey provided the initial benchmark data on the implementation of the middle school concept (McEwin, Dickinson, & Jenkins, 1996). A follow-up survey was performed 20 years later by Alexander and McEwin using many of the same survey items of the 1968 study with some new items added to provide a more complete picture of the changing programs and practices up to 1988 (McEwin et al., 1996). A third national study was performed by McEwin et al. (1996) in which 1,798 middle schools were surveyed with the same items used in both of the previous two studies along with new items added to reflect current issues and trends in middle schools. The same researchers again surveyed 746 middle schools nationally in a 2001 study that was designed to obtain a “snapshot” of current programs and practices in the continually emerging middle school concept (McEwin, Dickinson, & Jenkins, 2003). A fifth survey conducted in 2009 has been added to this series of national studies using a random stratified sample of 827 middle schools and a sample of 101 highly successful middle schools (HSMSs), comparing the degree of implementation between the two and comparing results to previous national studies (McEwin & Greene, 2011). This final 2009 survey will be discussed in greater detail at a later point as it relates to the current status of the implementation of the middle school concept.

The results of the previous four national studies performed from 1968 to 2001 demonstrated significant success and dramatic changes to the defining characteristics of a

middle school concept in its first 4 decades (McEwin et al., 2003). As shown in Table 1, the overall number of middle schools and the grade organizations of each, from the survey samples drawn, shows that the number of middle schools from 1970 to 2001 had grown by 153% and that the most popular grade organization was that of sixth to eighth grade in which the number over the same time period had grown by 422% (McEwin et al., 2003). The grade configuration trends for the study samples matched the trends in national grade configurations for the overall number of middle schools.

Table 1

Number of Middle Schools of Various Grade Organizations – 1970, 1986, 1992, 1999, and 2001

Grade Organization	1970-71	1986-87	1992-93	1999-00	2001-02	Percent of Change
5-8	772	1,137	1,223	1,325	1,364	+76
6-8	1,662	4,326	6,155	8,290	8,690	+422
7-8	2,450	2,627	2,412	2,362	2,323	-5
Total	4,884	8,093	9,790	11,977	12,377	+153

Note: Adapted from *America's Middle Schools in the New Century* by McEwin et al. (2003, p. 6). Copyright 2003 by National Middle School Association.

According to McEwin et al. (2003), a crucial element of successful middle schools is interdisciplinary team organization. The national surveys showed a dramatic increase in the number of middle schools using interdisciplinary team organization with an increase of 47% since 1988 (McEwin et al., 2003). As concerns the use of more flexible scheduling plans, the use of uniform periods has traditionally been the most popular way to organize middle schools, but the survey results did show an 8-year period of decline since the 1993 study (McEwin et al., 2003). Of equal significance was the

finding that more middle schools offered mini-courses for a portion of the curriculum resulting in an 18% increase since the 1993 study (McEwin et al., 2003). According to George and Alexander (2003), providing adolescents with the opportunities to explore their interests and talents has been a goal of middle school education since its beginning. Unfortunately, the use of advisor programs, although increasing dramatically in the initial stages of the middle school movement, had reached a plateau since 1993 with only a 1% increase up to 2001 (McEwin et al., 2003). This trend has continued to the present day in which almost half of all middle schools still have no formal advisory program (McEwin & Greene, 2010). The opposite has been seen with regard to interschool sports programs in which there has been a 46% increase since 1968 (McEwin et al., 2003). The popularity of competitive sports reached an historic high in 2001 with 96% of all middle schools having had an interschool competitive sports program of some kind (McEwin et al., 2003).

The results are discouraging for the instructional practices of middle schools surveyed over the past 4 decades. Although the use of interdisciplinary team organization has increased over this time period, the use of integrative instructional strategies in middle schools across the country needs to be improved (McEwin et al., 2003). The use of direct instruction remained the most frequently used instructional strategy, but the studies did show an increase in the use of cooperative learning on a regular basis by an average of 10% across middle grades from 1993 to 2001 (McEwin et al., 2003). Another discouraging result of the surveys was the common practice of ability grouping in 78% of schools in 2001 (McEwin et al., 2003). Even though the best way to group adolescents continues to be controversial, George and Alexander (2003) stated that the research evidence weighs against tracking but also shows the great majority of

schools still utilizing it. As concerns the number of teachers with specialized professional training in adolescent education and the use of high-stakes testing, the results showed no significant effects despite the literature to support both the certification of middle-level teachers and the narrowing impact of high-stakes tests (McEwin et al., 2003).

These longitudinal surveys do show that the goals of middle school education have essentially remained the same since Alexander and Williams (1965) proposed the following eight guidelines for “A Model Middle School”:

1. A real middle school should be designed to serve the needs of older children, preadolescents, and early adolescents.
2. A middle school organization should make a reality of the long-held ideal of individualized instruction.
3. A middle school program should give high priority to the intellectual components of the curriculum.
4. A middle school program should place primary emphasis on skills of continued learning.
5. A middle school should provide a rich program of exploratory experiences.
6. A program of health and physical education should be designed especially for boys and girls of the middle school years.
7. An emphasis on values should underline all aspects of a middle school program.
8. The organization of the middle school would facilitate the most effective use of the special competencies and interests of the teaching staffs. (pp. 219-221)

As stated by George and Alexander (2003), “one of the most remarkable aspects

of the middle school concept is how stable and consistent the basic tenets have remained across the nearly 50 years it has been evolving” (p. 50). The goals of the middle school concept have remained consistently focused on creating educational environments for adolescents that are developmentally appropriate and characterized by being unique and transitional in building on the elementary while leading toward the high school (George & Alexander, 2003).

The middle school concept was formalized with the publication of *Turning Points: Preparing American Youth for the 21st Century*, a report by the Carnegie Corporation of New York published in 1989 (Jackson & Davis, 2000). This groundbreaking study offered eight essential principles for improving middle grades education. These principles centered mainly on dividing students into smaller communities; teaching a core of common knowledge; giving teachers and principals the major responsibility and power to make decisions; staffing middle schools with teachers who are experts at educating adolescents; and promoting partnerships with families and communities through mutual respect, trust, and communication (Jackson & Davis, 2000). However, according to a report by the National Governors Association Center for Best Practices (Grossman, 2011), only 29 states differentiate the preparation of middle school and elementary school teachers.

As stated by Jackson and Davis (2000), “The existing research suggests that when reforms are implemented with integrity in a manner that leads to authentic change in curriculum, instruction, and assessment . . . dramatic and lasting improvements in student performance can be obtained” (p. 6). The original *Turning Points* report also established that the essential characteristics of effective human beings at the age of 15 should be as follows:

1. An intellectually reflective person;
2. A person in route to a lifetime of meaningful work;
3. A good citizen;
4. A caring and ethical individual; and
5. A healthy person (Jackson & Davis, 2000).

The establishment of a unique stage of child development and the formal statement of the particular educational needs for adolescents as stated in the Carnegie report and others was instrumental in building a national accord and promoting best practices of middle school education (George, 2009a). According to George (2009a), the most significant contribution to the educational organization of middle schools coming out of this formative period is interdisciplinary team organization. The middle school concept is built around the idea that “teaming” is a method of organizing teachers and learners more than it is a curriculum plan or an instructional strategy (George, 2009a). Other key parts of the organizational success of the middle school concept that have been established over the past 2 decades are the flexible-block schedule, multiage grouping, looping, and school-within-school structure, transforming the role of school leaders from building managers into instructional leaders, standards-based curriculum programming, improving teacher quality with increased certification requirements, and shared decision making and inclusion using co-teaching and collaboration (George, 2009a). According to Erb (2006), when the *Turning Points* model is faithfully implemented and maintained, the research is overwhelmingly positive regarding student achievement and behavioral outcomes.

A follow-up report to the original *Turning Points* study, titled *Turning Points 2000: Educating Adolescents in the 21st Century*, stated that the key to instruction is

building upon the concerns of the student (Jackson & Davis, 2000). This method of instruction must be accompanied by a variety of assessment methods that focus on enduring understandings as measured by authentic assessments that are formative in nature using, for example, rubrics and portfolios (Jackson & Davis, 2000). The recommendations of *Turning Points 2000* were advancements from the original report as there was a moving away from a core of common knowledge because it implied a prescribed, fixed universe of knowledge which is considered a concept inappropriate for the information age of the 21st century (Jackson & Davis, 2000). The recommendations stressed a curriculum grounded in rigorous academic standards, organizing relationships to create a climate of intellectual development, govern schools democratically through direct participation of students, and use instructional methods designed to prepare students to be lifelong learners (Jackson & Davis, 2000). As stated by Jackson and Davis (2000), “For young adolescents, relationships with adults form the critical pathways for their learning; education ‘happens’ through relationships” (p. 121). *Turning Points 2000* focused more on the relational aspects of instruction and organization compared with the more simplistic structural recommendations of the original 1989 *Turning Points* report.

The focus on a more integrated curriculum in tune with the concerns and interests of the students was stressed by Andrews (2008) when she stated, “in a new version (of *Turning Points*), the concerns of young adolescents would be the primary foundation for curriculum, with standards and how students learn best in a close tie for second” (p. 47). Curriculum integration can provide strong support for achieving the *Turning Points* vision with its focus on students, meaningful learning connections to real-world issues, and relationships (Andrews, 2008). Andrews advocated a “curriculum-based ecosystem” in which interesting problems frame the curriculum with the student environment and life

serves as the ultimate ecosystem in which teaching across disciplinary boundaries is encouraged. According to McEwin and Greene (2011), middle schools across the country are embracing curriculum that is more challenging, exploratory, integrative, and relevant.

Integrated and relevant characteristics of adolescent education have been further supported by AMLE (2010) which solidified 16 characteristics that when fully implemented lead to higher student achievement. According to AMLE, these essential characteristics of effective adolescent education must be challenging, exploratory, integrative, relevant, and encompass every aspect of the educational program. A middle school should be ever emerging to meet the needs of the adolescent with the guiding principle always to be developmentally responsive to those needs (McEwin & Greene, 2011). The characteristics of effective adolescent education are grouped into the following three areas: (1) curriculum, instruction, and assessment; (2) leadership and organization; and (3) culture and community (AMLE, 2010). The key to effective adolescent education is the authentic implementation of these middle-level components (McEwin & Greene, 2011). The following characteristics of effective adolescent education, as shown in Table 2, build upon many of the characteristics developed in previous studies and are supported by the research of *This We Believe*.

Table 2

Characteristics of Effective Adolescent Education

Area	Characteristics
Curriculum, Instruction and Assessment Characteristics	<p>Educators value young adolescents and are prepared to teach them</p> <p>Students and teachers are engaged in active, purposeful learning</p> <p>Curriculum is challenging, exploratory, integrative, and relevant</p> <p>Educators use multiple learning and teaching approaches</p> <p>Varied and ongoing assessments advance learning as well as measure it</p>
Leadership and Organization Characteristics	<p>A shared vision developed by all stakeholders guides every decision</p> <p>Leaders are committed to and knowledgeable about this age group, educational research, and best practices</p> <p>Leaders demonstrate courage and collaboration</p> <p>Ongoing professional development reflects best educational practices</p> <p>Organizational structures foster purposeful learning and meaningful relationships</p>
Culture and Community Characteristics	<p>The school environment is inviting, safe, inclusive, and supportive of all</p> <p>Every student's academic and personal development is guided by an adult advocate</p> <p>Comprehensive guidance and support services meet the needs of young adolescents</p> <p>Health and wellness are supported in curricula, school-wide programs, and related policies</p> <p>The school actively involves families in the education of their children</p> <p>The school includes community and business partners</p>

AMLE's (2010) foundational report is the culmination of decades of research on informing middle school educators to better help adolescents become fully functioning, self-actualized persons. *This We Believe* supports the research of others in defining

success at the middle level as not what courses have been passed, but rather what skills, dispositions, and habits of mind have been developed (Lounsbury, 2009). According to Lounsbury (2009), the middle school concept is fundamentally centered on the idea that skills and attitudes are more important than the possession of certain bodies of knowledge.

Similarly, research performed at the Center for Prevention Research and Development (CPRD) over the past 2 decades verified the essential elements of the middle school concept (Flowers et al., 2003). The following findings were identified as necessary elements of effective adolescent education:

1. Interdisciplinary team teachers must meet regularly for common planning time.
2. Smaller interdisciplinary teams engage more often in team and classroom “best practices.”
3. The positive impact of interdisciplinary teaming on team and classroom “best practices” increases as teams work together longer.
4. Team activities are strongly linked to classroom instruction.
5. Middle grades certified teachers in highly implemented schools engage more frequently in team and classroom “best practices.”
6. Sustained engagement in high levels of middle school practices positively impacts student achievement.

Concerning the amount of time interdisciplinary teams meet, the CPDR’s research revealed that team teachers need to meet at least 4 times each week for 30 or more minutes per meeting (Flowers et al., 2003). When teams met for the recommended amount of time, student self-reported outcomes improved, which included less

depression, fewer behavioral problems, higher self-esteem, and greater academic efficacy (Flowers et al., 2003). The research of the CPDR also found similar positive impacts with the other essential elements of effective adolescent education resulting universally in higher levels of team practices bringing about increased levels of academic achievement and lower levels of behavior problems (Flowers et al., 2003). In every major finding, whether it be smaller numbers of students per teacher team experiencing positive behavioral and academic effects for students or the positive correlation between the practices occurring at the team level and those occurring in the classroom, the work of the CPDR supports the middle concept in meeting the unique and transitional needs of adolescents (Flowers et al., 2003). Middle-level schools that were faithful in implementing teaming, common planning time, and adolescent-appropriate classroom instruction demonstrated improvements in student achievement scores over time (Flowers et al., 2003).

A more recent study performed by the University of Albany's School of Education identified key elements that contribute to consistently higher performance, particularly by schools serving large numbers of students in poverty (Wilcox & Angelis, 2007). Sixteen middle schools were surveyed in the State of New York revealing best practices that emerged from a complex web of technical, institutional, and managerial factors that go beyond common planning time, teaming, and block scheduling (Wilcox & Angelis, 2007). The study revealed that higher-performing middle schools build a culture of success by consistently maintaining the following elements:

1. Trusting and respectful relationships.
2. Students' social and emotional well-being.
3. Teamwork in a truly collaborative environment.

4. Evidence-based decision making from a variety of sources.
5. Shared vision of mission and goals.

According to Wilcox and Angelis (2007), the following elements were found to be synergistic, meaning that each is necessary but not sufficient in and of itself to make the difference between average and exceptional performance. The results of this study revealed that the key to meeting the unique and transitional needs of the adolescent are found in communicating clear expectations, sharing responsibility for raising student performance, being aware of student needs, maintaining consistent and productive collaboration, feeling empowered to make decisions, and sharing strategies to help students succeed (Wilcox & Angelis, 2007). These characteristics are shared by other researchers of adolescent education, but the “complex web” that emerged from this study is a strong reminder that youth need to receive guidance in the noncognitive aspects of an education from those given the responsibility of providing a formal education (Lounsbury, 2009). As Lounsbury (2009) stated, the overriding responsibility of adolescent teaching “has to involve the heart as well as head, attitude as well as information, spirit as well as scholarship, and conscience as well as competence” (p. 5).

Advocates of the middle school concept have argued that it is a false presumption to assume that the school’s concern for students as persons takes away from its academic responsibilities (Lounsbury, 2009). According to George (2009b), “the problem is not with the schools, but with the economic, social, personal, and spiritual supports that are vital to positive child development and school success” (p. 51). As with other adolescent researchers, George looked to socioeconomic factors as being one of the most important predictors of academic success. The research evidence supports the finding that within the majority of middle schools today, compared with middle schools over the past 3

decades, the curriculum is far more rigorous, expectations have never been higher, and schools are equipped with a variety of advanced technologies to support student learning (George, 2009b). As stated by Erb (2006), “the middle school movement remains unequalled as the most potent factor improving the performance of young adolescents” (p. 10). The main variables of school size, timing of school transitions, student SES, and the organization of middle grades to deliver instruction interact to have the strongest effect on student behavior and learning (Erb, 2006). These variables must be viewed as independent from the faithful implementation of the middle school concept and should not be used to discredit adolescent education (Erb, 2006).

According to Erb (2006), within the school’s control, the organizational health of a school most directly influences student performance, requiring that the implementation of the middle school concept coincide with a change in how people communicate, make decisions, deliver instruction, relate to students, and coordinate their work. To further the point, Brown, Roney, and Anfara (2003) stated that the effectiveness of the middle school concept is dependent upon it being implemented in organizationally healthy schools. Lounsbury (2009) stated that “the true middle school concept, it should be recognized, has not been practiced and found wanting; rather, it has been found difficult to implement fully, and is practiced, then, only partially” (p. 32). As referenced previously, the National Study of Randomly Selected Schools performed by McEwin and Greene (2010) surveyed over 800 schools using a survey instrument developed originally by William Alexander and modified by McEwin. The survey instrument being widely accepted in the profession and therefore not requiring separate reliability or validity studies (K. McEwin, personal communication, February 7, 2014) found that many middle schools have failed to fully implement developmentally responsive programs and practices

(McEwin & Greene, 2010). The major finding of the study was that the middle school concept and philosophy remain valid, but the real problem lies in the failure to fully implement the features of the middle school concept in ways that benefit all young adolescents (McEwin & Greene, 2010). As stated by McEwin and Greene (2011), “clearly, there is a significant gap in many schools between the levels of principal support for recommended middle level components and the actual implementation of those same programs and practices” (p. 30).

Despite the agreement of studies over the past few decades of the positive relationship between the fidelity of implementation of the middle school concept and student achievement, there has been a movement within the last decade to discredit middle-level education (George, 2009b). According to George (2009b), the suggestion that “troubled schools” should be closed and move middle-level students to schools serving kindergarten through eighth grades (K-8) is doomed to yield disappointing results if not accompanied by instituting reforms in curriculum, professional development, and support for teachers. As an example of the research to discredit the middle school concept, a longitudinal study comparing New York City adolescents found that standardized testing scores dropped significantly in math and English with the transition to middle schools in comparison to students who continually attended K-8 schools and that this decline was continual throughout the middle school years (Rockoff & Lockwood, 2010). Despite what appears to be a middle-school disadvantage, studies that support K-8 student achievement are possibly attributed to middle schools educating larger groups of students who are disruptive of a student’s immediate peer group upon transition to a more diverse middle school population (Rockoff & Lockwood, 2010). According to Rockoff and Lockwood (2010), “Developmental psychologists have shown

that adolescents commonly exhibit traits such as negativity, low self-esteem, and an inability to judge the risks and consequences of their actions, which may make them especially difficult to educate in larger groups” (p. 68). As stated previously, the problem is not with schools but with the economic, social, and personal supports vital to school success and healthy child development (George, 2009b). Similarly Erb (2006) called the K-8 movement a “red herring” due to the confounding variable of school size and its effect on the achievement of low-income students. The middle school concept must be implemented in healthy schools for it to be truly effective (Erb, 2006).

The middle school concept originally proposed by Alexander in 1963 as being developmentally responsive to the unique needs of the adolescent remains valid and supported by the middle school literature (McEwin & Greene, 2010). According to McEwin and Greene (2010), the key factor in implementing the middle school concept is leadership in the form of principals who strongly support components of adolescent education. Jackson and Davis (2000) stated that more importantly than single individuals, an effective middle school empowers individual teachers as having the major responsibility and power to make decisions about adolescents’ schooling due to the fact that teachers are viewed as adolescent experts. In an effective middle school, the diffusion of leadership and sense of autonomy are extended to the teachers with the establishment of leadership teams being at the heart of school governance (Jackson & Davis, 2000). George and Alexander (2003) stated that middle school principals increasingly see themselves as instructional leaders, but the accountability movement in many states drives many administrators with an all-consuming preoccupation with academic achievement as measured by statewide assessment tests. Increased accountability for academic achievement must be balanced with real autonomy for local

schools to make decisions on what is best for their unique and transitional adolescent students (Jackson & Davis, 2000).

McEwin and Greene (2011) also conducted a second national study during the same period as their Randomly Selected Middle Schools Survey in which they compared the results of the random sample with approximately 100 middle schools designated as “Schools to Watch” in an HSMS study. The results of the study found significant differences between the two samples as the HSMS survey showed higher levels of implementation of the effective characteristics of adolescent education (McEwin & Greene, 2011). As illustrated in Table 3, significant differences were found between the two studies in the number of respondents that indicated “highly implemented” at their particular school for the following characteristics: interdisciplinary organization, value working with adolescents, inviting supportive environment, challenging, integrative, and exploratory curriculum, multiple learning approaches, trusting, respectful relationships, and evidence-based decision making (McEwin & Greene, 2011).

Table 3

Randomly Selected Middle Schools and HSMSs Survey Results – 2009

Effective Characteristics	Randomly Selected Middle Schools	HSMSs
Interdisciplinary Organization	45%	71%
Value Working With Adolescents	53%	77%
Inviting, Supportive Environment	65%	86%
Challenging, Integrative, Exploratory Curriculum	40%	60%
Multiple Learning Approaches	31%	54%
Trusting, Respectful Relationships	46%	70%
Evidence-Based Decision Making	32%	52%

Note: All figures above indicate the percentage responding “highly implemented.”

Each of the characteristics surveyed with the same instrument used in McEwin and Green's (2010) National Study of Randomly Selected Schools had a difference in implementation rate response greater than 20 percentage points and demonstrated discrepancies in the implementation of the characteristics of adolescent education at a level necessary to make the middle school concept effective. Both surveys strongly support recommended middle-level components, but the authentic implementation of such components was significant (McEwin & Greene, 2011). According to McEwin and Greene (2011), the most discouraging result from both surveys is the current trend of many middle schools moving away from heterogeneous grouping and the extremely inconsistent requirements of states to require certification specific to middle-level grades. In summary, the results of both surveys clearly demonstrate that recommended middle-level programs and practices can be successfully implemented and when this occurs, results are overwhelmingly positive (McEwin & Greene, 2011).

Middle-level educators have an ethical obligation to ensure that adolescents have access to programs that are developmentally responsive, challenging, empowering, and equitable—the core characteristics of a middle school program (Burton, n.d.). As stated by Berckemeyer (2014),

When is the last time we created a movement of such impact for students, parents, and educators that did not require a government mandate or the signing of a bill? The middle level concept is people-driven, not policy-driven. It began and has stayed alive out of a burning desire to do what is best for this unique age group. (para. 12)

As early adolescence has gained acceptance during the 20th century as a distinctive period of development, researchers continually emphasize the importance of

considering young adolescents' developmental characteristics when planning curriculum, instruction, and assessment and organizing the environment of a school (Caskey & Anfara, 2014). The middle school movement continues to grow with specialists having established a research base that informs educators about youth in this key transition period as childhood wanes and adolescence comes into its own (Lounsbury, 2009).

Student Engagement

As the cornerstone of school reform efforts at all levels (National Research Council & Institute of Medicine, 2004), student engagement reflects a person's active involvement in a task or activity (Reeve, Jang, Carrell, Jeon, & Barch, 2004).

Engagement is generally conceptualized as a multidimensional meta-construct comprised of academic, behavioral, cognitive, and emotional domains, with cognitive engagement having been given the least amount of attention from researchers (Lewis et al., 2011).

Cognitive engagement is related to student views of education as a whole, instead of being limited to their particular feelings of bonding with a school or behavior in school and may be particularly important because it reflects to some degree the kind of lifelong learning attitudes that educators argue should be the overarching goal of education (Noddings, 2003). Behavioral engagement includes student conduct in class activities and draws on the idea of overall participation in school activities; while academic engagement refers mainly to time-on-task and homework completion and emotional (affective) engagement includes student attitudes, interests, and values and encompasses positive and negative reactions to teachers, classmates, academics, and school (Fredricks et al., 2004). It is necessary to move beyond indicators of academic, behavioral, and emotional engagement to understand the underlying cognitive and psychological needs of students (Appleton et al., 2006). As stated by Noddings (2003), "Focusing on cognitive

engagement, beyond behavioral or emotional school engagement, may not only be the most direct way to achieve the goal of such educators, it may also enhance overall adolescent well-being” (p. 258).

School engagement is seen as an antidote to signs of student alienation, but viewing engagement as commitment has not been adequately explored (Fredricks et al., 2004). The vast majority of studies rely on standardized testing scores, assuming that higher averages mean more engagement; but studies have not proven whether the higher scores indicate greater psychological commitment (Fredricks et al., 2004). Original studies of student engagement were designed in conjunction with dropout intervention programs in urban school districts, as engagement provides a means to intervene at the earliest signs of student disconnection with school (Appleton et al., 2008). Engagement has evolved over its nearly 30-year research history into a predictor of academic performance, but there remains little consensus in defining the construct and substantial variations in how engagement is operationalized and measured (Appleton et al., 2008). The only constant across numerous conceptualizations is that engagement is composed of subtypes related to important academic and social-emotional outcomes (Reschly Huebner, Appleton, & Antaramian, 2008) and structured as a multidimensional meta-construct due to various factors being dynamically interrelated within an individual and therefore not isolated processes (Fredericks et al., 2004).

Research indicates a decline in school-related attitudes and motivation for students transitioning to middle school (Roeser & Eccles, 1998) with attendance considered the most basic of engagement behaviors (Anderson et al., 2004). As stated by Anderson et al. (2004), “If students are not present, they cannot learn, establish relationships with teachers and peers, or experience other forms of engagement at school

and with learning” (p. 103). Nevertheless, observable indicators of engagement that convey a student’s level of connection with school and learning, such as attendance patterns, time-on-task, homework completion, accrual of credits, or problem behaviors, are simplistic conceptions (Appleton et al., 2008). The majority of research has focused on these more observable indicators while ignoring the less overt subtypes of cognitive and affective engagement that contrast against academic and behavioral aspects by focusing on the perspective of students (Appleton et al., 2008). With the use of more internal indicators such as self-regulation, relevance of schoolwork to future endeavors, value of learning, personal goals and autonomy, feelings of identification or belonging, and relationships with teachers and peers, the idea of engagement as commitment must include those psychological aspects that are foundational to the external behavior of adolescents.

Measures of cognitive engagement are limited to mainly using survey items about flexible problem solving, preference for hard work, independent work styles, and ways of coping with perceived failure (Fredricks et al., 2004). Researchers differentiate between substantive engagement and procedural engagement, in which substantive refers to the frequency of high-level evaluation and authentic questions and procedural lasts only as long as needed to complete a task (Fredricks et al., 2004). Since cognition is not readily observable, as with behavioral engagement, cognitive engagement must be assessed from self-report measures which typically measure metacognition, volitional and effort control, and cognitive strategies used to gauge a deeper level of thinking (Fredricks et al., 2004). Often considered interchangeable with motivation, cognitive engagement is distinct in that it reflects a person’s active involvement in a task or activity, whereas motivation is purely related to the underlying psychological processes for a given behavior and thought

of in terms of the intensity or direction of one's energies (Appleton et al., 2006).

Although difficult to measure, engagement and motivation are different constructs, with cognitive engagement reflecting the true investment of students in learning (Sabin, 2014).

Motivation and engagement are separate, as one can be motivated but not actively engaged in a task; therefore, motivation is necessary but not sufficient for engagement (Appleton et al., 2008). Engagement fosters student motivation by focusing on the alterable variables of the perceived relevance of schoolwork, personal goals, and the value of learning but remains distinct by being the connection between person and activity (Appleton et al., 2006). This distinction between cognitive engagement and motivation remains subject to debate, but cognitive engagement and its relationship to alleviating the negative effects of middle school transitions have paralleled changes to the academic and social climate of middle schools that have taken hold due to reforms over the past 2-3 decades (Ryan, Shim, & Makara, 2013).

There is a growing body of research that explores the mechanisms that underlie the antecedents and consequences of school engagement (Dotterer & Lowe, 2011) demonstrating that the social, instructional, and organizational climate of schools influences both student engagement and their academic achievement (Patrick, Ryan, & Kaplan, 2007). With significant decreases in students' sense of relatedness and student-teacher relationship quality following the transition to middle school (Furrer & Skinner, 2003), students become more engaged when classroom contexts meet their needs for relatedness, which occurs more frequently in classrooms where a caring and supportive environment is created by both teachers and peers (Fredricks et al., 2004). Researchers have discovered that a supportive social environment must include teacher and student support, along with the promotion of interaction in order to relate positively to self-

regulated learning, a central characteristic of cognitive engagement (Dotterer & Lowe, 2011) and an essential component of the middle school movement (Lounsbury, 2009).

Relatedness was the focus of a study by Furrer and Skinner (2003) in which they concluded that children's senses of relatedness play an important role in academic motivation and performance. Consistent with previous research that claims students' feelings of connectedness or belonging represent a key self-system process, children who reported a higher sense of relatedness showed greater emotional and behavioral engagement in school, as captured by both self- and teacher-ratings (Furrer & Skinner, 2003). Additionally, children's senses of relatedness made a unique contribution to their engagement over and above the effects of strong self-systems of motivation, specifically student perceived control, as feelings of belonging are believed to have an energetic function, awakening enthusiasm, interest, and willingness to participate in academic activities (Furrer & Skinner, 2003). Furrer and Skinner found that children high in relatedness did indeed start out the school year higher in engagement than children low in relatedness, but they also improved more over time. A sense of relatedness, connectedness, or belonging does function as a motivational resource when children are faced with challenges; and during times of increased stress, children who experience trusted others as "backing them up" respond with more vigor, flexibility, and constructive actions while having more secure attachments to parents, teachers, and peers (Furrer & Skinner, 2003). Each uniquely contributes to student engagement by functioning as "safe havens" that allow children the freedom to explore and engage constructively in activities and interactions with others (Furrer & Skinner, 2003). These activities satisfy the fundamental human needs for belonging, autonomy, and competence which are the basis for the construction and development of adolescent self-system processes (Furrer &

Skinner, 2003).

Children who report a greater sense of relatedness or belonging also feel more confident, work harder, cope more adaptively, show more positive affect, and perform better in school (Anderman & Anderman, 1999; Ryan, Stiller, & Lynch, 1994). Over time, research has shifted the focus of relatedness to the quality of the teacher-child relationship, as conveyed by such constructs as “pedagogical caring” (Wentzel, 1997). Research by Patrick et al. (2007) divided engagement into two categories, self-regulation and task-related interaction strategies. Self-regulatory strategies involve planning, monitoring, and regulating cognition, while task-related interactions involve giving and receiving explanations for concepts (Patrick et al., 2007). Their research found strong evidence that the classroom social environment is important to student engagement as students are more likely to use both types of strategies when students feel a sense of emotional support from their teacher, academic support from their peers, and encouragement from their teacher to discuss their work (Patrick et al., 2007).

There continues to be a growing body of research indicating that the classroom context plays a significant role in student motivation and engagement (Patrick et al., 2007). Drawing on data from the National Institute of Child Health and Development (NICHD) Study of Early Child Care and Youth Development, Dotterer and Lowe (2011) found that adolescents who were in classrooms that were rated as being higher on instructional quality and positive social/emotional climate but lower on teacher-child conflict were more likely to report feeling positive toward their school and putting more effort into learning. This comprehensive longitudinal study conducted between 2000 and 2005, which included 1,014 children in fifth grade, demonstrates that classroom context is an important predictor of school engagement and academic achievement (Dotterer &

Lowe, 2011). Cognitive engagement includes not only academic motivation and aspirations but also students' senses of self-efficacy and perceptions of school, teachers, and other students (Jimerson, Campos, & Greif, 2003). Previous research concerning the role of cognitive engagement supports current findings indicating that children who feel a sense of belonging and social support were more likely to be engaged and participate in school (Deci & Ryan 1985; Wentzel, 1997), along with research indicating that negative relationships with teachers were more likely to create problems related to school engagement and academic achievements (Baker, 2006; Stipek & Miles, 2008). The middle school concept is grounded in an awareness of students' social and emotional well-being by making teachers more aware of students' needs and creating a sense of security for adolescents by making every effort to help students find a connection to school and remove barriers to learning (Wilcox & Angelis, 2007). One of the most consistent findings of engagement research is that positive, supportive relationships with adults are associated with good outcomes for children; as stated by Masten, Cutuli, Herbers, and Reed (2009), "The best documented asset of resilient children is a strong bond to a competent and caring adult, which need not be a parent" (p. 127).

Using the NELS of 1988 and follow-up studies in 1990, 1992, and 1994, Lee and Smith (1993, 1995) found that students in schools implementing more elements of communal organization demonstrated higher engagement and greater increases in engagement over time. Cognitive engagement is enriched with communal activities in which class members actively discuss ideas, debate points of view, and critique each other's work (Guthrie & Wigfield, 2000; Meloth & Deering, 1994; Newmann, 1992). Contexts that support autonomy are presumed to enhance cognitive engagement (Connell, 1990) and autonomy-supportive classrooms are characterized by choice, shared

decision making, and absence of external controls, which mirror the essential characteristics of the middle school concept (Fredricks et al., 2004). It is assumed that students will be more engaged when individual autonomy needs are fully met (Connell & Wellborn, 1991). A short-term longitudinal study of middle school students by Wang and Holcombe (2010) found that school social environment (autonomy, teacher support, performance goals, mastery goals, and class discussion) in seventh grade predicted affective (school identification), behavioral (school participation), and cognitive (self-regulation strategies) engagement in eighth grade; and engagement, in turn, was significantly related to eighth-grade GPA. Results of research consistently demonstrate that closer, higher quality relationships were associated with improved engagement in school (Anderson et al., 2004); and studies are beginning to more thoroughly link school/classroom environments, school engagement, and academic achievement (Dotterer & Lowe, 2011).

Engagement has also been studied as both a mediator and moderator between contexts and outcomes and as an end in itself (Reschly et al., 2008). Exploring the role of positive emotions during school, coping, and student engagement among a sample of 293 students in Grades 7 to 10, Reschly et al. (2008) found the association between positive emotions and engagement was partially mediated by adaptive coping. Using Broaden and Build Theory (Fredrickson, 1998, 2001), positive emotions are hypothesized to broaden human thoughts and behaviors and facilitate more adaptive responses to environments, which create greater learning opportunities and accrual of resources, further facilitating future well-being (Reschly et al., 2008). According to Fredrickson (2001), positive emotions broaden attention, cognition, and behavior, as well as build physical, intellectual, and social resources. Cognitive aspects of engagement require

higher levels of inference, including student perspectives, and are specified by information such as perceived relevance of courses and future aspirations (Christenson et al., 2008). Research findings provide preliminary support for the notion that the experience of frequent positive emotions in school, but not negative emotions, relate to broadened cognitive (problem solving) and behavioral (social support seeking) coping strategies that create upward spirals toward well-being (Reschly et al., 2008).

A strong relationship has been found between cognitive engagement and both personal goal direction and investment in learning (Greene, Miller, Crowson, Duke, & Akey, 2004), which in turn has been associated with academic achievement (Miller, Greene, Montalvo, Ravindran, & Nichols, 1996). The multidimensional engagement construct represents a conceptual call away from a strict dependence on monitoring student time-on-task and attendance to the inclusion of important underlying variables, such as the sense of autonomy, belonging, competence, and the extent to which the context provides the foundation for fulfillment of these needs (Ryan & Deci, 2000). An overemphasis on academic and behavioral engagement ignores the growing amount of literature that suggests that cognitive and psychological engagement indicators are associated with positive learning outcomes (Fredricks et al., 2004), related to motivation (Russell, Ainley, & Frydenberg, 2005), and increases in response to specific teaching strategies (Reeve et al., 2004). Recently, the Gallup Student Poll has been initiated as a 10-year longitudinal study to measure the hope, engagement, and well-being of public school students in Grades 5 through 12 using a nationally representative sample of 695 young people and supported by convenience samples of nearly a half million students (Lopez, 2011). Using five questions about the conditions that foster involvement in and enthusiasm for school, the first wave of data collected identified an “engagement slide” in

which engagement peaks in elementary, declines in middle school, plateaus in early high school, and increases for the remainder of high school (Lopez, 2011). In response to these findings, more personal interactions with adults in the school were found as necessary to offset the challenges of school size and the feelings of anonymity that characterize the transition to middle school (Lopez, 2011).

As emotional and cognitive engagement are more likely to deteriorate over time in comparison to behavioral engagement, the 4-H Study of Positive Youth Development started in 2002, assesses how school engagement trajectories varied in relation to certain demographic variables (Li & Lerner, 2011). This study confirmed a positive link between emotional engagement and academic outcomes and concluded that it is at least equally important to make sure that students feel connected to school (Li & Lerner, 2011). Four different trajectories were analyzed, being differentiated by gender and SES, with boys and youth from low SES families being more likely to experience problematic pathways of behavioral and emotional engagement (Li & Lerner, 2011). As stated by Li and Lerner (2011), “Membership in different trajectories of behavioral and emotional engagement was significantly linked to grades, depression, delinquency, and substance use” (p. 243). Confirming the general pattern of continuous decline in children engagement across the years they spend in school, each of the four emotional engagement trajectories had a downward trend suggesting that although some students experience stability in behavioral engagement, most students in the study experienced loss in the extent to which they felt connected in school (Li & Lerner, 2011).

As research has demonstrated that adolescents who are hopeful about their future and believe that education will help them later in life become more satisfied with their lives across the school year, exploring the connection between students’ positive SWB

and their levels of engagement in schooling may be the most direct way to enhance overall adolescent well-being (Lewis et al., 2011). The middle school concept targets the concerns of the adolescent as the primary foundation for curriculum (Andrews, 2008); and when faithfully implemented and maintained, the research is overwhelmingly positive regarding student achievement and behavioral outcomes (Erb, 2006). Increased cognitive engagement linked with higher life satisfaction results in students who feel connected to their school and engaged in behaviors that will promote their school and their own academic achievement (DeSantis King, Huebner, Suldo, & Valois, 2006).

Life Satisfaction

The definition for positive mental health has recently been expanded to include more than simply the absence of psychopathology or mental illness (Gilman & Huebner, 2006). Intervention and prevention efforts have started to focus on systematically building strengths (“strength-based orientation”), not solely repairing weaknesses in individuals (Gillman & Huebner, 2003). SWB research focuses on how people evaluate their immediate and ongoing life circumstances (Diener, 2000) and has been discovered to be largely regulated by internal mechanisms rather than by objective conditions such as SES (Gilman & Huebner, 2003). SWB is not sufficient for overall positive mental health but does appear necessary (Diener, Suh, Lucas, & Smith, 1999) and consists of three related but distinct components of positive affect, negative affect, and life satisfaction (Gilman & Huebner, 2006).

This cognitive component, referred to as GLS, is defined as an individual’s appraisal of the overall quality of his or her life based on self-selected standards that incorporate but also transcend the immediate effects of life events and mood states (Gilman & Huebner, 2003). GLS acts as a protective psychological strength that

provides buffering against the effects of adverse life events throughout adolescence, specifically as a buffer against the development of behavior problems (Suldo & Huebner, 2004). Life satisfaction is not a secondary symptom but influences other behaviors as GLS involves psychological processes that are based on an individual's internal standards (Diener, 1994); therefore, self-reports are crucial indicators of an adolescent's overall satisfaction (Gilman & Huebner, 2003). It is necessary in studies of life satisfaction to use multidimensional reports that are more sensitive to the varied domains of an adolescent's life and school experience (Gilman & Huebner, 2003).

Research demonstrates clear linkages between adolescents' positive SWB and their levels of engagement in schooling (Lewis et al., 2011). Unfortunately, there have been only a few studies of associations between life satisfaction and positive emotions and school-related variables, such as academic achievement and behavior with adolescents (Lewis et al., 2011). Despite limited research, studies have found that once basic physical and emotional needs are met, additional financial resources have been found to not significantly influence levels of life satisfaction (Gilman & Huebner, 2003), as well as studies having reported no significant race differences (Huebner, 1994; Huebner, Laughlin, Ash, & Gilman, 1998), and the general relationship to demographic variables is modest at best (Gilman & Huebner, 2003). Research has also found that positive family experiences correlate strongly with child and adolescent GLS, even more strongly than positive peer experiences (Dew & Huebner, 1994; Huebner, 1991); and the cumulative effect of daily experiences are more influential than major life events that are either positive or negative (Gilman & Huebner, 2003). Even during times of prosperity, youth report feelings of alienation, disenfranchisement, and dissatisfaction (Larson, 2000); but similar to adults, most adolescents view their overall lives positively (Diener

& Diener, 1996). Inconsistent research findings such as these demonstrate discrepancies with adolescent developmental theories that characterize adolescence as fraught with emotional upheaval (Gilman & Heubner, 2003), but there is a need to further study GLS in connection with developmental factors of adolescence as research yields consistently greater variation in comparison with secondary students (Gilman & Heubner, 2003).

Suldo and Shaffer (2008) found that middle school students with high life satisfaction and low levels of psychopathology had significantly higher grade point averages and standardized test scores than peers with low levels of psychopathology and life satisfaction. Studies partially support the hypothesis that student engagement predicts life satisfaction as adolescents who were hopeful about their future and also believed that education would help them later became more satisfied with their lives across the school year (Lewis et al., 2011). By including cognitive engagement along with behavioral and emotional engagement in the study of SWB, or a general level of happiness, the differential associations between life satisfaction and student engagement variables provide support for the use of multidimensional models of student engagement (Lewis et al., 2011). Similar to studies of adults, life satisfaction appears to play an important role in adolescents' overall adaptation; and the linking of life satisfaction with cognitive engagement gives increasing strength to the middle school concept (Lewis et al., 2011).

In a study by Lewis et al. (2011) in which 779 middle school students completed measures of GLS and cognitive, emotional, and behavioral engagement at two different time points, partial support was found for student engagement predicting higher levels of life satisfaction. In referring to the idea of happiness, GLS acts in a similar way to the construct of student engagement by being an umbrella term incorporating multiple

constructs (Lewis et al., 2011). The three main research emphases that have emerged to promote adolescent well-being are positive subjective experience (GLS), positive individual traits, and positive institutional (e.g., schools, families) characteristics (Suldo & Huebner, 2004). Suldo and Huebner (2004) studied the effect of adolescents' judgments on life satisfaction in moderating the development of psychopathological behavior and found support for the moderation of external but not internal behavior problems. Results provide support for the idea that the experience of life satisfaction may serve as a significant psychological strength for adolescents; and the inclination to appraise life in a positive manner affects the likelihood of subsequent, effective coping behaviors (Suldo & Huebner, 2004). Nevertheless, only moderate levels of life satisfaction may be optimal for adaptation; and if this is the case, youth who report high life satisfaction would gain no greater psychological benefits than youth who report average satisfaction levels (Gilman & Huebner, 2006). This challenges the accepted notion by educators to encourage the promotion of GLS to the highest levels for all students (Gilman & Huebner, 2006). However, individual life satisfaction is viewed as a key component of adolescent adaptation due to the fact that it transcends momentary emotional fluctuations, can influence changes in behaviors, and is relatively free of social desirability bias (Gilman & Huebner, 2006).

The subjective nature of GLS is further complicated by the multi-dimensional nature of the self, as an individual's sense of self-worth can vary by relational context (Harter, 2012). Students feel differently about themselves in reference to different types of relationships; and this perspective is especially pronounced in early adolescence when individuals' self-descriptions vary across different roles, for example with parents, teachers, friends, or romantic partners (Harter, Waters, & Whitesell, 1998). Research

demonstrates that relational self-worth around teachers declines in the transition from elementary, most likely due to the large, bureaucratic nature of many middle schools and an emphasis by teachers on using more controlling strategies in classroom management (Ryan et al., 2013). In comparison to teachers, relational self-worth around friends is more stable or even increases during adolescence despite changes in school contexts often being at odds with the cognitive, physical, and social changes of early adolescence making supportive peer and teacher relationships especially important during this stage (Eccles et al., 1993). Research though is inconsistent with regard to middle school transition effects on changes in self-worth and self-esteem (Ryan et al., 2013). Research has found declines in self-worth and self-esteem for students when they transition into middle school (Blyth, Simmons, & Carlton-Ford, 1983; Wigfield, Eccles, Mac Iver, Reuman, & Midgley, 1991); however, other studies have found no change in self-worth (Crockett, Petersen, Graber, Schulenberg, & Ebata, 1989; Harter, Whitesell, & Kowalski, 1992) or even increases in self-worth (Schulenberg, Asp, & Petersen, 1984). According to Ryan et al. (2013), findings such as these “paint a more nuanced picture: students’ academic adjustment declined but relational self-worth around teachers and friends was stable or improving” (p. 1382).

Similar to needing to include each aspect of the subjective, individual, and institutional variables impacting adolescent transitions through middle school (Lewis et al., 2011), previous social support literature suggests that no one support variable is sufficient to account for adolescent global school satisfaction (Rosenfeld, Richman, & Bowen, 2000). Baker (1998) defined school satisfaction as “students’ subjective, cognitive appraisals of their quality of school life” (p. 26). A study by DeSantis King et al. (2006), using a sample of 974 students from three middle and two high schools,

examined the relationships among school satisfaction, social support, and problem behaviors and found modest associations between school satisfaction and the demographic variables of gender, race, age, and grade level. The support from teachers, parents, and classmates contributed unique variance to ratings of school satisfaction, with teacher support contributing the highest amount of unique variance (DeSantis King et al., 2006). School satisfaction mediated the relationship between social support and internalizing and externalizing behaviors, but did not moderate the relationship between social support and problem behaviors, serving simply as a more generalized protective factor across all levels of social support (DeSantis King et al., 2006).

Malecki and Demaray (2002) defined social support as “an individual’s perceptions of general support or specific supportive behaviors (available or enacted upon) from people in their social network, which enhances their functioning and/or may buffer them from adverse outcomes” (p. 2). When students are satisfied with school, they feel more deeply connected and engage in behaviors that will promote the school and their own academic achievement (DeSantis King et al., 2006). There are consistent findings in studies of life satisfaction demonstrating significant negative relationships, as students feeling satisfied with their school experiences report fewer experiences of externalizing and internalizing negative behavior (McKnight, Huebner, & Suldo, 2002).

If higher levels of overall social support are expected to relate to higher levels of school satisfaction which results in lower levels of behavior problems (DeSantis King et al., 2006), middle schools need to purposefully build cultures of success by consistently maintaining the common elements of trusting and respectful relationships and students’ social and emotional well-being (Wilcox & Angelis, 2007). Higher-performing middle schools have teachers who relate to students above focusing on instructional strategies

and make every effort to help every student find a connection to school (Wilcox & Angelis, 2007). Teachers remove barriers to learning by reaching out to students with the greatest needs and having an acute awareness of adolescents' academic, physical, and emotional needs (Wilcox & Angelis, 2007). DeSantis King et al. (2006) found that school satisfaction correlated significantly with all variables of their study, with the strongest relationships occurring with total social support and teacher support. Significant correlations were also found between school satisfaction and demographic variables, with the exception of SES (DeSantis King et al., 2006). This is consistent with previous studies of school satisfaction that have found that higher levels of school satisfaction correlate negatively with adverse behaviors (Eamon 2002; Karatzias, Power, & Swanson, 2001). The transition to middle school is a significant predictor of decline in academic interests (Dotterer et al., 2009); but as stated by Lounsbury (2009), "It is imperative that youth receive guidance in the noncognitive aspects of an education from those given the responsibility of providing a formal education . . . middle school teaching is a moral enterprise" (p. 4).

Private Schools

As defined by Alt and Peter (2002), private schools are owned and governed by entities that are independent of any government, typically being operated by religious bodies or independent boards of trustees. Private schools receive their funding primarily from nonpublic sources, tuition payments, and often other private sources such as foundations, religious bodies, alumni, or other private donors (Alt & Peter, 2002). Since the beginning of the 20th century, the distinctions between private and public schools have become institutionalized with public education defined by universal accessibility, government ownership, and public interest (Bidwell & Dreeben, 2003). Choice is a

defining characteristic of private education as families choose private education, and private schools may choose which students to accept (Alt & Peter, 2002). Even in public schools, choice options have been expanded by school systems through magnet and charter schools, open enrollment, and similar offerings; even in a few instances using publicly funded vouchers (Alt & Peter, 2002). On average, private schools have smaller enrollments, smaller average class sizes, and lower student-to-teacher ratios compared with public schools, with research indicating a relationship to higher student achievement with enhanced learning through these closer relationships (Alt & Peter, 2002). However, according to Lubienski, Lubienski, and Crane (2008), "A handful of longitudinal analyses have pointed in the same direction, raising questions about assumptions that structural aspects of the private school sector necessarily lead to better learning outcomes" (p. 99).

Focusing their study on mathematics achievement, a subject generally thought to be less influenced by family background and more by school effects than other subjects (Bryk et al., 1993; Heyneman 2005), Lubienski, Lubienski, and Crane (2008) found that demographic issues accounted for the vast majority of the variance in achievement between schools, while school type accounted for very little. Using a sample of approximately 190,000 fourth graders and 150,000 eighth graders from public and private schools, there was a pattern of inconsistency indicating that although school climate factors such as parent involvement, teacher morale, and student attendance might seem a greater strength in private schools, it appears that in many cases this might simply be due to the advantaged demographics of those schools (Lubienski, Lubienski, & Crane, 2008). The foremost characteristic that was both associated with achievement and more prevalent in private schools was smaller class size, but teacher certification, reform-oriented instruction, and student attitudes explained a substantial portion of the negative

private school coefficients (Lubienski, Lubienski, & Crane, 2008). Results of this study showed the vast majority of public school students had certified teachers (89% at Grade 4 and 75% at Grade 8), while conservative Christian schools employed relatively few such teachers, with an average of less than 45% (Lubienski, Lubienski, & Crane, 2008).

According to Lubienski, Lubienski, and Crane, this shows “nationally representative evidence that teacher certification and some reform-oriented instructional practices both correlate positively with achievement and are more prevalent in public schools than in their demographically similar private counterparts” (p. 132). This suggests that regardless of school type, reforms capitalizing on current best practices hold promise for improving student learning, particularly on assessments that are shaped by this expertise (Lubienski, Lubienski, & Crane, 2008).

One of the foundational aspects of the middle school concept is the organizing of relationships for learning to create a climate of intellectual development and a caring community of shared educational purpose (Jackson & Davis, 2000). This communal emphasis is reflected in private schools that have historically pushed the organizational form of public schools in a more communal direction (Bidwell & Dreeben, 2003). Nevertheless, increased pressures for standardization have emerged from bureaucratic formalization and subsequent standardization of procedures; organization of markets for personnel, students, and textbooks; and exposure to mandated innovations resulting in a common occupational structure in both public and private schools (Bidwell & Dreeben, 2003). As research indicates, positive school climates are due more to the school demographics than to school type (Lubienski, Lubienski, & Crane, 2008); and the public-private distinction has become secondary to fundamental dimensions of school organization (Bidwell & Dreeben, 2003).

As stated by Bidwell and Dreeben (2003), “It also remains to be seen whether schools in the private sector, subject to continuing pressure toward equality in educational life chances, will become increasingly subject to formal, universalistic regulation” (p. 21). Both public and private schools are converging as they occupy the same environmental and social dimensions, with differences being in degree rather than kind (Bidwell & Dreeben, 2003). The centralization of school controls and resulting market niche ramifications are bringing public and private schools in competition with one another (Lauen, 2007). As stated by Lauen (2007),

The decline of the neighborhood school model suggests a new role for students in a school system—one in which students are treated less as subjects in a one-size-fits-all system and more as clients whose individual needs must be addressed by a wide variety of schooling options that maximize freedom of choice and multiple pathways to social mobility. (p. 179)

It is easier for private schools to form more autonomous, adaptive communities using school-wide problem solving and personalized, experiential learning while being more pedagogically consensual with parents, which favors private schools when combined in an environment of selectivity (Bidwell & Dreeben, 2003). In accordance with market principles, public schools are hindered in their effectiveness by bureaucratic administration and dependence upon public funds; while private schools are required to be more efficient and innovative to compete and respond to consumers (Lubienski, Lubienski, & Crane, 2008).

Studies of public versus private education are framed by basic assumptions of the universal bureaucracy of public schools and the communal organization of private schools (Bidwell & Dreeben, 2003). The debate between public and private school

impacts on student achievement have persisted since James Coleman and his colleagues in a 1982 and a later 1987 study first identified the “private school effect” (Coleman, Hoffer, & Kilgore, 1982). Coleman found that even taking into account key background characteristics, students of private schools outperformed students of public schools; but the study was widely criticized because it was a cross-sectional study instead of being longitudinal, simply meaning that students who were higher performing before entering private school remained higher performing (Center on Education Policy [CEP], 2007). For decades, research has demonstrated higher achievement for private school students with the central issue in this debate being how to explain the difference (CEP, 2007). Critics claim that outcomes for private schools are attributable to prior achievement, SES, and cultural capital in comparison to public schools that are weighed down by demographically disadvantaged students (CEP, 2007).

Most of the current studies on the comparison of private and public schools are drawn from the data of NAEP. Since 1969, the “Nation’s Report Card” provides results in many subject areas but is mainly limited to reading, mathematics, science, and writing and is the largest nationally representative and continuing assessment of what America's students know and can do in these various subject areas (NCES, 2013a). Using NAEP data, we can compare the performance of public school students to the performance of private school students in three types of private schools: Catholic, Lutheran, and Conservative Christian. As shown in Table 4, private school students regularly perform at a higher level than public school students comparing mathematics and reading results for Grade 8 (NCES, 2013b; NCES, 2013c). Past results of the NAEP consistently show a higher percentage of students in private schools of all types performing at or above Proficient and at or above Basic compared with students in public schools (Perie,

Vanneman, & Goldstein, 2005).

Table 4

NAEP Results in Mathematics and Reading for Public and Private Schools – 1990-2013

Year	Public Mathematics	Private Mathematics	Year	Public Reading	Private Reading
2013	284	296	2013	266	285
2011	283	296	2011	264	282
2009	282	296	2009	262	282
2007	280	293	2007	261	280
2003	276	292	2003	261	282
2000	272	286	2002	263	281
1996	269	285	1998	261	281
1992	267	281	1994	257	279
1990	262	271	1992	258	278

Note: All scores are average national composite scaled scores.

The performance gap between public and private schools remained almost identical over 2 decades (NCES, 2013b; NCES, 2013c). The results of the NAEP assessments cannot be argued but also cannot be taken at face value. The raw scores of the NAEP are overwhelmingly in favor of a private school effect or advantage, but a consideration of demographics and family characteristics of students must be taken into account in order to get a complete picture of the comparative performance of public and private school students (CEP, 2007). NAEP results can simply be a product of private schools attracting students of a higher IQ, fewer students with learning disabilities, or students from families who participate more in the education of their child (CEP, 2007).

A study by Braun, Jenkins, and Grigg (2006) based on NAEP results of 2003 and using hierarchical linear modeling (HLM), took into account certain student characteristics critical to explaining student academic performance in both types of

schools. The goal of the study was to examine differences in mean NAEP reading and mathematics scores between public and private schools with selected student and school characteristics taken into account (Braun et al., 2006). The student characteristics considered in the HLM study were gender, ethnicity, disability status, and identification as an English language learner (Braun et al., 2006). HLM estimated the relationship between NAEP scores and student population characteristics and derived an adjusted school mean meant to represent all schools in the study with a similar student population (Braun et al., 2006). This adjustment is one way of “leveling the playing field” in comparing public and private schools (Braun, 2007) as HLM is a form of multiple regression analysis used when two or more groups are studied with a multitude of variables (Kaufhold, 2007). After adjusting for student characteristics, the average mean mathematics score was higher for public school students in Grade 4; and the difference in scores between public and private school students in Grade 8 was nearly zero (Braun et al., 2006). Including selected student characteristics in the model resulted in a significant reduction in the difference in all subject areas tested; in addition, the average difference for Grade 8 in adjusted school means between Conservative Christian schools and all public schools resulted in a significantly higher average for public schools (Braun et al., 2006).

An immediate conclusion of the HLM study is that a substantial fraction of the private school advantage in NAEP assessments can be accounted for by differences in their populations with respect to student characteristics associated with performance (Braun, 2007). Admittedly, Braun et al. (2006) discussed the two major limitations of the NAEP data; the most important being that the NAEP is based only on students’ current achievement levels and not on how much they have learned in the past year, and

secondly, there is no way to account for the initial differences in the student populations of the two school types. Peterson and Llaudet (2007) further highlighted the limitations of the NAEP assessments in an alternative study that substituted better measures of student characteristics. According to Peterson and Llaudet, the measures of student characteristics in the NAEP study were flawed due to inconsistent classification of characteristics across sectors and inclusion of characteristics open to school influence. The three student characteristics of absenteeism rate, number of books, and availability of a computer in a student's home were identified as being open to school influence and therefore biasing the results of any study using NAEP data to compare public and private schools (Peterson & Llaudet, 2007). The availability of computers in a student's home would be significantly higher for students of a higher SES but not necessarily associated with higher testing results (Brooks, 2010). The NAEP is criticized for under counting in private schools and over counting in public schools the number of disadvantaged and disabled students as the NCES, in releasing the NAEP study, repeatedly miscounted when it inferred a student's background from his or her participation in federal programs (Title I services) or Individual Education Plan (IEP) participation (Peterson & Llaudet, 2007). NCES also misreported the language skills of students when it used Limited English Proficient (LEP) classification as the indicator of student's language skills as student's own reports of the frequency that a language other than English was spoken in the home revealed that sectional differences in language background are not that extreme (Peterson & Llaudet, 2007).

Substituting better measures of student characteristics, Peterson and Llaudet (2007) formulated an alternative model to reevaluate the NAEP results substituting parent education for participation in Title I services, student reports on language substituted for

LEP, and teacher reports on the severity of disability substituted for the more broad IEP indicator. All three characteristics open to school influence were eliminated (school absenteeism, computer, and books-in-the-home variables); and reevaluating the NAEP results identified a private school advantage in nearly all comparisons, with the exception of evangelical Protestant schools performing at a similar level to public schools in math but at a higher level in reading (Peterson & Llaudet, 2007). Although an improvement, the use of snapshot NAEP data only increased the debate on the performance of public versus private schools as no conclusions can be made concerning causal relationships or identifying a “private school advantage” (Peterson & Llaudet, 2007).

A second group of studies have taken a different approach to the issue of public versus private schools by measuring student gains in achievement over time. The first major longitudinal study, performed by Lubienski, Crane, and Lubienski (2008), used the Early Childhood Longitudinal Study, Kindergarten Class of 1998-99 (ECLS-K) to track student performance up to the fifth grade. According to Lubienski, Crane, and Lubienski, the ECLS-K data were used to examine whether public school students begin kindergarten with higher achievement than demographically equal students in private schools and to compare student achievement gains between kindergarten and fifth grade in mathematics in public and private schools. Using HLM, public and Catholic kindergarten achievement was found to be almost identical after controlling for demographics, but achievement in the “other private” schools was significantly higher than public schools (Lubienski, Crane, & Lubienski, 2008). Nevertheless, simply switching students from one type of school to another will not always result in higher scores; as the variables in the ECLS-K study accounted for 62% of the achievement differences between schools, but school type alone accounted for less than 5% of these

differences (Lubienski, Crane, & Lubienski, 2008). The student-level demographic variables for the study by Lubienski, Crane, and Lubienski included SES, race, gender, language skills, location of school, and the combination of Asian and White students in the school population. Isolating demographics as the main variable is an attempt to show that if demographics are more equal, student achievement on standardized testing tends to equalize as well (Lubienski, Crane, & Lubienski, 2008).

One such study that attempted to more definitively explain why private schools score higher on standardized testing as compared to public schools, by more accurately identifying specific demographics, was a longitudinal study commissioned by the CEP (2007) using the National Educational Longitudinal Study of 1988-2000 (NELS). The CEP confirmed earlier research that finds little if any difference in public and private school achievement that could not be explained by demographic factors (Bracey, 2008b). The CEP study was longitudinal, running from Grades 8-12, but was criticized because it studied only students who completed high school and came from the bottom quartile of family income (Bracey, 2008b). The results of this study show that the performance of high school adolescents was influenced primarily by student performance before they enter high school, economic advantages parents give, and the involvement of the parents in school related activities, including attitudes toward school (CEP, 2007). Though in the area of mathematics, parental discussions and involvement in school activities had no impact on achievement, but SES and parent expectations did (Bracey, 2008b).

One major exception to the findings of the CEP (2007) study was that students who attended private schools had higher SAT scores, giving these students a “special path” to higher education. The CEP study attributed higher SAT scores by assuming a generally higher IQ for private school students and to more time spent in SAT

preparation but with no supporting evidence to cite (Bracey, 2008b). The CEP study concluded by stating that the private school advantage or myth is an illusion and simply shows that private schools contain a larger proportion of children whose parents have characteristics that contribute to learning than do public schools. The defining characteristic of private education therefore becomes one of privilege and advantage; but research shows that student characteristics such as SES, prior achievement, support for learning at home, and motivation level may influence student outcomes, independent of the sector of school attended (Alt & Peter, 2002). Characteristics such as enrollment size, community type, and student body composition may also affect outcomes regardless of the type of school, despite the tendency to automatically attach these characteristics to private schools (Alt & Peter, 2002).

Despite private school teachers tending to report more autonomy in their work, a greater sense of community within their schools, and more support from their principals (Anderson & Resnick, 1997), overall evidence indicated that professional development can enhance both teacher practices and student achievement despite the type of school (Lubienski, Lubienski, & Crane, 2008). As stated by Muller and Ellison (2001), “Little attention has been paid to the possible impact of religious communities, practices, and values on the lives and development of adolescents” (p. 156). With academic differences among students becoming especially pronounced during the period of transition from childhood to adulthood, the religious element of private education is undervalued as a potential explanation for private school effects as religious involvement remains modestly but significantly linked with desirable outcomes (Muller & Ellison, 2001). Comparative studies between public and private education have only shown that private schools have advantages from the outset that many public schools cannot match, as a

result of the choice by students and their families to participate in private, religiously oriented education (Alt & Peter, 2002). However, the assumed private school characteristics of requiring students to tackle difficult course material, developing consistent commitment from staff to meet clearly communicated goals, and maintaining a school climate that supports learning may well contribute to better achievement of all school types (Alt & Peter, 2002).

Private Religious Schools

Although the middle school concept is universally applicable to adolescents of multiple school types, students of private Christian schools are immersed in environmental factors that can potentially influence levels of student engagement and GLS. According to NCES (2013d), conservative Christian schools are members in at least one of four major associations: Accelerated Christian Education, American Association of Christian Schools, Association of Christian Schools International (ASCI), or Oral Roberts University Education Fellowship. Conservative Protestant Christian schools are defined by a philosophy of education that is differentiated from a secular philosophy in the areas of educational purpose, providers, content, and philosophy of the learner and teaching (Guillermin & Beck, 1995). Christian education is based on a sectarian perennialist set of beliefs that holds truth to be eternal, everlasting, and unchanging (Oliva & Gordon, 2013). This impacts the primary objectives for education in contrast to secular objectives as Christian education aims to develop the character of individuals as “image-bearers” of God in order to subordinate content to virtue and to secure the appropriate wealth of knowledge (Guillerman & Beck, 1995). This is accomplished by making the primary objective of every curricular unit acquainting students with the person and purposes of Jesus Christ (Guillermin & Beck, 1995).

Additionally, Christian schools of this study view parents as the primary educators of their children and therefore school environments as a supplement and support to their purposes and views students as free individuals who have the ability to determine actions in line with absolute values (Guillermin & Beck, 1995). Christian philosophy views the content of education through the lens of a sovereign God and man as His dependent creation, which means God is known by studying what He has created. Therefore, according to a Christian philosophy of education, creation is evidence that there is an objective truth about our world that can be determined by rational inquiry and realizing that we know nothing correctly unless we first know God and ultimately know Him best through the revelation of Scripture (Guillermin & Beck, 1995).

In order to understand current educational demand for private schools, it is necessary to understand the religious element with broad demand for religious schooling being strongly dependent on the level of subsidized tuition in private schools (Cohen-Zada & Justman, 2005). Private religious schools are generally less expensive compared with nonsectarian private schools and therefore are the more popular choice (Cohen-Zada & Justman, 2005). When vouchers match public per-pupil spending, over 70% of eligible families choose religious schools over public and nonsectarian private, assuming there is no rise in tuition (Cohen-Zada & Justman, 2005). With five of six private school students attending religious schools (Cohen-Zada & Justman, 2005), both religion and religiosity have had important effects on the demand for private schools; and according to Cohen-Zada and Sander (2008), if religiosity is not taken into account, the measurement of the effect of religion in private schools will be seriously biased.

Besides the impact to public schools, recent growth in charter schools has had a significant impact on private school enrollment patterns and especially that of religious

schools (Buddin, 2012). Total enrollment in public schools remained consistent from 2008 to 2012 with a population of approximately 48 million, but total private school enrollment fell from approximately 6.3 to 5.2 million over the same period (NCES, 2013f; NCES, 2014). With the magnet school population remaining consistent at approximately 2.2 million from 2008 to 2012, charter school enrollment has grown from 1.4 to over 2 million (NCES, 2013f). The effect of charter school growth, specifically to private middle schools, is most significant to religious private middle schools as the largest share of private school students are drawn from religious schools (Buddin, 2012). Charter middle schools draw approximately 6% of their students from private religious schools, not including Catholic schools, but even more in highly urban areas as the percentage of students drawn from religious middle schools is approximately 23% (Buddin, 2012). The expected growth of charter schools will continue to create considerable competitive pressure on private schools and stimulate private school reforms just to maintain current enrollments, especially in more urban districts (Buddin, 2012).

Religiosity is a key factor that affects who attends private schools and who might respond to voucher initiatives (Cohen-Zada & Sander, 2008). With 68% of private schools having an intentional religious orientation or purpose, enrolling 80% of private school students and employing 72% of private school teachers in 2011-2012 (Broughman & Swaim, 2013), few of the studies on private schooling have directly taken into account the effects of religion and religiosity (Cohen-Zada & Sander, 2008). In a longitudinal study by Muller and Ellison (2001) using a sample of eighth-grade public school students, religious involvement was found to predict more favorable outcomes among the lowest and highest performing students. In addition, adolescents who are religious enjoy greater social capital than other youths while fostering positive youth attitudes and

behaviors (Muller & Ellison, 2001). According to Coleman, social capital refers to social relationships and institutional involvements that provide individuals with various kinds of resources (Muller & Ellison, 2001). These resources include values and norms to channel behavior, circulation of useful information, and long-term social investments governed by reciprocity, trust, and mutual obligation which can facilitate future actions and be mobilized toward instrumental ends (Muller & Ellison, 2001). Religious involvement is clearly associated with social capital in the family and community and has a moderate and positive association with adolescent self-concept and is associated with such behaviors as more time spent on homework and lower levels of truancy (Muller & Ellison, 2001). Parents send their children to religious schools in part to help preserve a religious identity and instill religious values (Cohen-Zada, 2006); but as previous studies have focused on the effect of religion on school choice, a study by Cohen-Zada and Sander (2008) found that the respondent religiosity as measured by participation is a more important determinant.

Each school of this study was evangelical in purpose, as opposed to covenant schools that require a profession of Christianity in order to attend, and therefore students may or may not practice Christianity as espoused by each school. Research reveals that religious households are substantially more inclined to send their children to religious schools, and often private school communities will be religiously more homogeneous but varied in incomes (Cohen-Zada & Sander, 2008). Nevertheless, most studies of the academic achievement of public versus private schools find little if any difference that could not be explained by demographic factors (Bracey, 2008b). Private school effects, in most instances, are attributable to prior achievement, SES, and students engaging in more educational activities, dependent upon SES, and therefore more typical for private

school students who the student later draws upon in class and on assessments (Wenglinsky, 2007).

With most studies of student engagement and life satisfaction focused on at-risk adolescent populations, private religious school environments offer an opportunity to measure potentially unique elements of implementing the middle school concept. By fostering more personalized and responsive educational experiences, the middle school concept and its relationship to cognitive student engagement and GLS including school satisfaction can contribute to the generalizable knowledge of meeting the unique needs of adolescents in a pivotal period of transition and development. Research has shown that private schools are able to implement the middle school concept with fewer obstructions due to the presence of more adaptive learning communities as a result of lower student to teacher ratios, class size, and consistency of demographic variables which puts private Christian schools in the position to positively impact the academic, emotional, and social experience of adolescents.

Program Evaluation

During the early years of the middle school movement, program evaluation was lacking as middle schools were originally opened to accomplish the goal of school desegregation or more effective use of school facilities (George & Alexander, 2003). Formative evaluation, the process used to determine whether plans and intentions have been effectively implemented, was done poorly; and summative evaluation, the process involved in reaching a decision about the value of a program that has been implemented, was not done at all in middle schools (George & Alexander, 2003). Whether it was a result of new U.S. laws in the 1960s to equitably serve minorities and persons with disabilities; the accountability movement begun in the 1970s for both the prudent use of

resources and achievement of objectives; the stress on excellence in the 1980s to increase U.S. international competitiveness; or the 1990s trend to employ evaluation to ensure quality, competitiveness, and equity in delivering services, elements of American society have repeatedly pressed schools to prove through evaluation whether or not services and improvement efforts were succeeding (Stufflebeam, 2001). Nevertheless, for the first few decades of the middle school movement, districts devoted little in the way of resources to evaluate program effectiveness and lacked sufficient data to determine whether programs were actually implemented as planned (George & Alexander, 2003).

Program evaluation in education has evolved over the past decade to incorporate the evidence-based practice (EBP) movement that has spread across a wide variety of human services (Detrich & Lewis, 2013). EBP is essentially a policy to use quantitative evidence to inform decisions at all levels of service with the underlying assumption that practices based in scientific research are more likely to be beneficial compared to practices lacking rigorous, statistical evaluation (Detrich & Lewis, 2013). Initially as a requirement of No Child Left Behind (2001), EBPs are now universally used in education with a primary function to ensure that students are receiving the most beneficial services individualized to their particular learning styles and needs (Kadel, 2010). In the context of whole program evaluation, EBP consists of three “data-driven” phases of identifying quality research on specific interventions, implementing programs with sufficient integrity to produce positive outcomes, and evaluating results through systematic reviews and meta-analysis (Detrich & Lewis, 2013). As past conclusions of the success or failure of middle school programs had been based on very limited evidence, modern program evaluation and the process of making educational judgments have inevitably led school leaders to depend on evidence-based research methods in evaluating quantitative data to

make those judgments (Oliva & Gordon, 2013).

According to Stufflebeam and Shirkfield (2007), there were 26 models that emerged in the United States between 1960 and 1999 that are employed in program evaluation (p. 133). These approaches have been classified into the following five categories: (1) pseudoevaluations, (2) questions and/or methods-oriented, (3) improvement/accountability, (4) social agenda/advocacy, and (5) eclectic approaches (Stufflebeam & Shirkfield, 2007). Being often motivated by political objectives, pseudoevaluations fail to produce or report valid assessments by selectively releasing, overgeneralizing, or falsifying findings to dishonestly characterize a program's value (Stufflebeam & Shirkfield, 2007). On the other hand, the remaining four categories conform to the essential definition of evaluation as the assessment of something's worth or merit (Stufflebeam, 2001). Questions- and methods-oriented approaches (quasi-evaluation studies) tend to narrow an evaluation's scope and often deliver less than a full assessment of merit and worth (Stufflebeam & Shirkfield, 2007). On the other hand, improvement- and accountability-oriented approaches are more expansive in considering the full range of questions and criteria needed to assess a program by looking at all relevant outcomes, not just those keyed to program objectives (Stufflebeam & Shirkfield, 2007). Additionally, social agenda and advocacy approaches favor a constructivist orientation by employing the perspectives of all stakeholders as well as experts in characterizing, investigating, and judging programs and denying the possibility of finding right answers by stressing cultural pluralism and multiple realities through a more democratic process of engagement (Stufflebeam & Shirkfield, 2007). And lastly, according to Stufflebeam and Shirkfield, eclectic evaluation approaches are "unconstrained by the parameters of a single model or approach . . . employ whatever

philosophical base, conceptual framework, and procedures may be conducive to achieving particular evaluation objectives and fulfilling the desires of particular evaluation clients” (p. 229).

Throughout its more than 60-year history, educational program evaluation has generally followed four major models that have favored either the planned, enacted, or experienced curriculum (Marsh & Willis, 2007). A broader view of program evaluation encompasses assessing any coordinated set of activities directed at achieving goals and within school settings this is mainly centered upon the evaluation of curriculum (Stufflebeam, 2001). Curriculum evaluation is the assessment of programs, processes, and curricular products; while instructional evaluation is the assessment of student achievement and effectiveness of instruction (Oliva & Gordon, 2013). Therefore, in the context of schools, evaluating instruction is equated with evaluating curriculum implementation, which in turn directly appraises the implementation of whole educational programs (Oliva & Gordon, 2013). With curriculum defined by Marsh and Willis (2007) as “an interrelated set of plans and experiences that a student undertakes under the guidance of the school” (p. 15), to evaluate an educational program is to consider the amalgam of planned and unplanned activities and what is considered the “lived curriculum” or what students individually experience. The planned curriculum emphasizes what is provided at the school level, while the enacted curriculum refers to what is specifically provided and implemented by individual teachers, leaving the experienced curriculum to include how programming is ultimately received by the students (Marsh & Willis, 2007). Program evaluation is collectively comprised of the processes necessary for providing information from all three aspects of curriculum in order to make sound judgments on the relative merits of possible alternatives

(Stufflebeam, 1968).

As the leading example of the question and methods-oriented approach, formal program evaluation in schools started with Tyler's (1949) Objectives Model in which the focus is on the planned curriculum. Using a strict means-end rationale, the purpose of this objectives-based evaluation approach, according to Tyler, was to determine the extent to which student behaviors stipulated in school-wide program objectives were realized in practice, but employing a wide range of objective- and performance-based assessments (Stufflebeam, 2001). Tyler's approach is set apart from other methods-oriented studies that focus only on a particular method, usually using an experimental design or a particular standardized test to evaluate a program (Stufflebeam, 2001). The inherent weakness of Tyler's model though was that one cannot question the appropriateness of the original objectives as these are already predetermined, which ultimately necessitated the development of an evaluation model to focus on the enacted curriculum. Robert Stake's Countenance Model of the 1960s, a social agenda and advocacy approach, expanded the face of evaluation through greater use of formal methods to obtain data about what is happening in classrooms over and above whether school-wide objectives were being realized (Marsh & Willis, 2007). This client-centered/responsive approach, according to Stake, considered antecedents, transactions, and outcomes of learning and distinguish between describing and judging, doing both to broaden evaluation beyond objectives only (Marsh & Willis, 2007).

The 1970s saw further evolution of social agenda and advocacy approaches of evaluation through the development of Malcolm Parlett and David Hamilton's Illuminative Model in which the focus was also on the enacted curriculum but with a nonconventional approach. As another example of client-centered/responsive

approaches, informal, observational means of collecting data were employed at the level of individual teachers to focus evaluation on how the curriculum actually worked in action, rather than by objectives only (Marsh & Willis, 2007). Evaluation methods were adapted to suit specific situations, rather than being bound by experimental or preordained designs; and the instructional system was differentiated from what was termed the “learning milieu” or the complicated pattern of interactions between teachers and students (Marsh & Willis, 2007). According to Parlett and Hamilton, evaluation models should follow the basic principle of the problem defining the methods used to evaluate, allowing for accommodation and flexibility in program assessment (Marsh & Willis, 2007).

The last major model to be developed in educational program evaluation was Elliot Eisner’s Educational Connoisseurship that portrayed prominent features of educational programs from the perspective of students but with no particular steps or prescribed methodology (Marsh & Willis, 2007). Categorized as a questions- and methods-oriented approach and being formulated in the 1970s, Eisner’s model permitted evaluators to become participants within the situation while abandoning objective explanations in terms of cause-and-effect relationships and argued for aesthetic criticism to emphasize the experienced curriculum (Marsh & Willis, 2007). According to Eisner, the interrelated processes of educational criticism and “connoisseurship” include description, interpretation, and appraisal of student experience in a highly subjective, qualitative way (Marsh & Willis, 2007). Education is always a normative enterprise as every aspect of teaching and learning is endued with values and is therefore the opposite of purely technical approaches using psychometrics (Eisner, 1994). Therefore, Eisner (1994) stated that evaluation must artistically capture evanescent happenings in school

life by differentiating between the process of learning and the product of learning, what was done versus what ensued.

As stated by Oliva and Gordon (2013), program evaluation “is not something done solely at the end of a program’s implementation, but is instead an operation that takes place before, during, and at the end of the implementation” (p. 323). The purpose of the present study was to determine the level of implementing a middle school concept in three private Christian schools using the CIPP model of program evaluation.

Developed by the Phi Delta Kappa National Study Committee on Evaluation, chaired by Daniel Stufflebeam, the CIPP model is comprehensive in evaluating all phases of an educational program by focusing on four types of evaluation – Context, Input, Process, and Product – and flexible in incorporating the three facets of curriculum, the planned, enacted, and experienced curricula (Oliva & Gordon, 2013). The CIPP model best represents the category of improvement- and accountability-oriented approaches as evaluation is focused on proactively being used to improve a program as well as retroactively judge its value (Stufflebeam & Shirkfield, 2007).

The first aspect of the model, context evaluation, refers to appraising the rationale for determination of educational objectives and setting criteria for judgment of program results (Stufflebeam, 2003). As stated by Stufflebeam (1968), “Decisions served by context evaluation include deciding upon the setting to be served, the goals associated with meeting needs, and the objectives associated with solving problems” (p. 33). Context evaluation essentially uncovers the fundamental requirements of a program and answers the basic question, “What needed to be done?” Secondly, input evaluation consists of assessing prescribed courses of action and information for determining how to utilize available resources and answers the question, “How should a program be

implemented?” In assessing the current condition of program evaluation, Stufflebeam (1968) stated, “Methods for input evaluation are lacking in education. The prevalent practices include committee deliberations, appeal to the professional literature, and the employment of consultants” (p. 34). Additionally, in a warning to school leaders, Stufflebeam (1968) stated, “there is frequently a tendency to over-depend upon personal experiences, hearsay evidence, and authoritative opinion; and surely, all too many decisions are due to ignorance that viable alternatives exist” (p. 18). By identifying and defending the necessary changes to a program, input evaluation seeks to pinpoint an action plan to move a program forward.

The third phase of the CIPP model, process evaluation, refers to the ongoing assessment of a plan’s implementation and provision for periodic feedback by answering the basic question, “Was the program implemented as planned?” (Stufflebeam, 2003). The purpose of process evaluation is to assist program leaders to continually improve the quality of their programs and ultimately make their decisions more rational (Stufflebeam, 1968). According to Stufflebeam (1968), the evaluator must accept the program both as it is and as it evolves and must be able to monitor the total situation by focusing on the most sensitive and nonintervening data collection devices and techniques that can be obtained for what are judged to be the most crucial aspects of the project (Stufflebeam, 1968). Evaluation is therefore multivariate, attending to theoretically important variates, but also remaining alert to any unanticipated but significant events (Stufflebeam, 1968).

The final phase of the CIPP model, product evaluation, concerns the measurement and interpretation of attainments and assessment of intended and unintended outcomes (Stufflebeam, 2003). Maintaining accountability, product evaluation answers the simple question, “What was the effect of the program,” which requires final judgments on the

results of program implementation. This critical, cumulative stage of evaluation is described by Stufflebeam (1968) when he stated, “In the change process, product evaluation provides information for deciding to continue, terminate, modify or refocus a change activity, and for linking the activity to other phases of the change process” (p. 37). In summary, product evaluation is the method to operationally define and measure criteria associated with the objectives of a program, to compare these measurements with predetermined absolute or relative standards, and to make rational interpretations of the outcomes using the recorded context, input, and process information (Stufflebeam, 1968).

Mirroring EBP’s emphasis on research practices in evaluating program effectiveness, the underlying theme of the CIPP model is that evaluation’s most important purpose is not to prove but to improve (Stufflebeam, 2003). As stated by Stufflebeam (1968),

making sound judgments requires timely access to valid and reliable information pertaining to the alternatives; and the availability of such information requires systematic means to provide it Stated simply, evaluation is the science of providing information for decision-making. (pp. 18-19).

The state of evaluation currently is that qualitative research stands side-by-side with traditional quantitative forms and the CIPP model, despite being developed in the 1960s, and takes into consideration the varying aspects of an educational program or what are termed the “commonplaces of curriculum” – teacher, learner, subject matter, and milieu (Marsh & Willis, 2007). Nevertheless, Stufflebeam (1968) recognized the limitations of experimental designs in evaluation when he stated, “findings may not at all be generalizable to the real world where the so-called extraneous variables operate freely Clearly, it is important to know how educational innovations operate under real

world conditions” (p. 16). According to Stufflebeam, it is a difficult task since few generalized evaluation designs exist which are adequate to meet emergent needs for evaluation. Nevertheless, by evaluating the context, input, process, and product of an educational program, the CIPP model is a more responsive, adaptable form of evaluation and designed to serve the needs for both formative and summative evaluations (Stufflebeam, 2003). The formal definition underlying the CIPP model is that evaluation is the process of applying descriptive and judgmental information about the merit and worth of some object’s goals, design, implementation, and outcomes in order to foster development by providing accountability reports, informing decisions, and improving understanding of the involved phenomena (Stufflebeam, 2003). As stated by Stufflebeam (1968),

What is the explanation for this situation? Why is it that educators are failing to provide evaluations which are at the same time useful and scientifically respectable? Why is it that evaluations which adhere to classical research methods provide information which is of only limited help in making decisions about programs, and why do the typical "no significant difference" findings in so many of these evaluations contravene the experiences of those who are intimately involved in the programs? (p. 7)

The CIPP model requires comprehensive program measurement that reveals types of evaluations, decision-making settings, decisions, and change, providing the necessary information for judging decision alternatives and directing program improvement (Oliva & Gordon, 2013). The level of implementation of the essential characteristics of the middle school concept and levels of cognitive, psychological student engagement and GLS were evaluated in terms of the process and products to better understand the

quantitative and qualitative nature of three private middle school programs. The unique academic, social, and emotional needs of adolescents were appraised by the thorough and multifaceted assessment provided by Stufflebeam's comprehensive model of educational program evaluation.

Chapter 3: Methodology

Introduction

As stated by Erb (2006), “Those programs and practices associated with middle grades reform models have proven to be effective in improving student outcomes, including achievement” (p. 5). Nevertheless, the present study sought to go beyond academic achievement in evaluating the overall strength of the middle school concept in private Christian schools by assessing the cognitive and affective aspects of student experience in each school. Levels of student engagement and GLS are two dimensions of adolescent development that are instrumental as research indicates a link between adolescent students’ positive SWB and their levels of engagement in schooling (Lewis et al., 2011). Building upon this crucial link, as stated by Lewis et al. (2011), “The differential associations between life satisfaction and the student engagement variables provide support for multidimensional models of student engagement” (p. 259). The methodology used to make a comprehensive program evaluation of the implementation of the middle school concept, cognitive student engagement, and life satisfaction are discussed in Chapter 3 while providing a description of the population studied, the instruments used to collect the data, and the statistical techniques applied in analyzing this data.

Participants

Participants for this study were middle-level faculty, administrators, and students in three private schools located in surrounding suburbs of a city in the piedmont section of the southeast. Each private Christian school promoted itself as a college-preparatory program governed by biblically based disciplinary policies, selecting students for enrollment and varying in tuition costs, therefore generally consisting of a student body

of higher SES, although tuition assistance is provided in all three schools on a limited basis to those who qualify. According to administrators of each school, students must have met minimum admission requirements in entrance testing, past academic achievement, and completed recommendation forms from previous teachers and/or administrators. Additionally, students were generally required to score in the average range (50th percentile and above) for math and reading comprehension on standardized entrance tests administered at each school. Each school did provide academic support services for students with academic and behavioral exceptionalities but on a limited basis and with additional cost above tuition.

Each middle school program, identified in this study as Schools A, B, and C, had been in existence for a span of 18-30 years and as shown in Table 5, the populations of each school were evenly distributed by grade level and gender with the average number of students being approximately 190. In addition, student populations for the schools of this study were more homogenous in ethnicity as compared to public schools within the same state. Each school had a middle school population higher in White students and lower in Black and Hispanic students compared with public school statewide percentages of approximately 52% for White, 26% for Black, and 14% for Hispanic students (Department of Public Instruction, 2013).

Table 5

Research Schools – Middle School Student Populations

	School A	School B	School C
Sixth Grade	85	81	18
Seventh Grade	96	83	23
Eighth Grade	87	83	13
Total	268	247	54

Regarding middle school faculty, the schools of this study did not require teachers to maintain public licensure or be specialized in middle-level education. The minimum requirements for employment included a statement of a personal relationship with Jesus Christ along with a bachelor's degree from an accredited university or college and the ability to complete requirements for teaching certification through accrediting agencies of which each subject school is a member, mainly the ACSI and the Southern Association of Colleges and Schools (SACS). All middle school faculty and administrators at each school were eligible to participate in the middle school practices survey and individual interviews.

Instruments

Three survey instruments were administered for this study with middle school administration and faculty members receiving a survey to measure the level of implementation of the middle school concept in their individual school and corresponding students receiving two surveys, one to measure levels of cognitive student engagement and the other to measure GLS. All three surveys used self-report measures

and have been widely used in educational research for the constructs being measured.

The implementation of a middle school concept was measured using the National Middle School Survey (Appendix A) developed by Alexander and McEwin (1989) in national longitudinal surveys of programs and practices in middle schools. The national surveys were performed in 1968, 1988, 1993, 2003, and most recently in 2009 in which the survey was administered to a national random sample of 827 public middle schools and a second survey of 101 middle schools that had been granted national recognition for excellence. Only minor modifications were made to the survey instrument over that time with new items being added that addressed topics like technology and global education (McEwin & Greene, 2011). The validity and reliability of the survey are widely accepted in the profession, and no separate reliability or validity studies were undertaken or necessary (K. McEwin, personal communication, February 7, 2014). As stated by McEwin and Greene (2011), the survey items are taken from *This We Believe* and intended to collect information on “developmentally responsive and effective programs and practices” (p. 6). The survey is divided into two parts consisting of which middle school concept characteristics are valued and which are actually being implemented using a 4-point Likert scale with 4 representing the highest level of importance and 3 representing the highest level of implementation (McEwin & Greene, 2011). Full permission was granted by Dr. McEwin to use this survey instrument for the purposes of this study in gauging the implementation level of the middle school concept in private schools (K. McEwin, personal communication, February 7, 2014).

The measuring of cognitive student engagement was achieved by administering the Student Engagement Instrument (SEI) (Appendix B) developed by Dr. James Appleton and Dr. Sandra Christenson (2006), a student self-report questionnaire using

Likert scales consisting of six subscales measuring the two constructs of psychological and cognitive engagement (Fredricks, McColskey, Meli, Mordica, Montrosse, & Mooney, 2011). The three cognitive engagement subscales of the SEI include control and relevance of school work, extrinsic motivation, and future aspirations and goals (Reschly et al., 2008). The SEI was developed to go beyond observable indicators of academic and behavioral engagement to measure the cognitive and psychological aspects of engagement as reported by students (Fredricks et al., 2011). This instrument was originally used with a sample of 1,931 Grade 9 students from an urban, ethnically diverse, majority low-income school district. Later validation studies were conducted using students in Grades 6-12, and other studies have also used the instrument with middle school and high school students (Fredricks et al., 2011). According to Appleton et al. (2006), internal consistencies (Cronbach's alphas) of .88 were calculated for teacher-student relationships, .80 for control and relevance of schoolwork, .82 for peer support for learning, .78 for future aspirations and goals, .76 for family support for learning, and .72 for extrinsic motivation. Construct validity of the six subscales was demonstrated using a confirmatory factor analysis (Fredricks et al., 2011). According to Betts, Appleton, Reschly, Christenson, and Huebner (2010), engagement subscales correlate with measures of academic performance and behavior, demonstrating criterion-related validity through positive relationships with grade point average, reading, and math achievement and negative relationships with frequency of suspensions. The SEI survey is part of the public domain and general permission is granted to use it for the purposes of adolescent research.

The last survey instrument used in this study was the Multidimensional Students Life Satisfaction Scale (MSLSS) (Appendix C) developed by Huebner (1994). The

MSLSS is a general self-report assessment using Likert scales on five domains important in the lives of adolescents – family, friends, school, living environment, and self (Gilman et al., 2000). As stated by Gilman et al. (2000), “The MSLSS is a 40-item self-report scale that examines the domain specificity of life satisfaction while retaining a general life satisfaction rating” (p. 140). Reliability studies of the MSLSS have consistently yielded alpha coefficients judged adequate for research purposes, with alphas ranging from 0.90 to 0.92 for the total score and 0.77 to 0.85 for the domain scores; and the stability coefficients for each of the MSLSS subscales and the total score have ranged from 0.78 to 0.90 (Huebner & Gilman, 1998). According to Huebner and Gillman (1998), the underlying model of the MSLSS has been confirmed in a study of middle school students in Grades 6-8 using confirmatory factor analytic procedures. SWB is not a “monolithic entity,” but is comprised of an affective component (i.e., positive and negative emotions) and a cognitive component labeled life satisfaction with both components being shown as distinct from each other (Gilman et al., 2000). The MSLSS instrument is in the public domain and general permission is granted to use it for research purposes, being used effectively with children across a wide range of grade levels, including adolescents.

Procedures

Faculty and students in all three middle schools were surveyed in February and March of 2015 to measure the perceptions of levels of middle school concept implementation and corresponding student engagement and GLS. First, middle school faculty and administration were emailed the National Middle School Survey in electronic form to be completed within a period of 3-5 days with a reminder email sent 2 days after the initial survey link. A second reminder was sent as a minimum response rate of 50%

was not reached. Second, each administrator notified parents prior to administering the survey instruments through the Parent Consent Letter (Appendix D) and parental permission for each individual student to participate was obtained as required by the researcher's Institutional Research Board. After obtaining informed consent all participating middle school students were administered a paper-and-pencil form of the two surveys which were completed in class and administered by each student's designated teacher. This paralleled administration procedures of previous studies using the same survey instruments (Appleton et al., 2006; Gilman et al., 2000). Permission was obtained from each Head of School to gather data from faculty and students who volunteer to participate in the evaluation of their middle school programs.

The establishment of a protocol for administering the student surveys was to insure standardization of survey proctoring and ethical practice to protect the anonymity of participants. The administration of each individual school designated the classrooms or areas to be used in administering student surveys to each grade-level group along with the faculty members who would be used as proctors. The following procedures were reviewed collectively with middle school faculty 2 weeks prior to administering student surveys:

1. In each grade level attendance will be confirmed against a participants' list provided by the researcher to verify that all students being surveyed have obtained parental consent.
2. Talking will not be permitted during survey administration and students will be seated in such a manner so as to discourage the viewing of survey answers by other students.
3. Surveys will be distributed along with an informational handout (Appendix E)

which will be read orally by the proctoring faculty member before beginning the surveys. Student questions should be answered by referring to the stated procedures and informational handout provided.

4. Students will not be permitted to leave the classroom once the survey has begun and interruptions of any kind are to be avoided during survey administration. A maximum time limit will be designated by the scheduling needs of each school's administration with a standard minimum time allotment uniform to all schools.
5. In each grade level group surveys will be collected by a designated student and placed in an envelope provided by the researcher beforehand. All surveys, including any that were unused, will be placed in this same envelope. The envelope will be immediately sealed and handed to the supervising faculty member to insure proper handling and delivery to the researcher or designated collector. Each envelope will contain identifying information on the outside pertaining only to the grade level and proctoring faculty member.
6. If the researcher or designated collector is not immediately available all surveys will be kept in a locked drawer/cabinet until collected. Surveys are to be in the possession of the researcher or designated collector outside all classrooms.

Surveys were administered in the second semester of the school year so as to insure that procedures and practices were well established in regards to implementing a middle school concept. Therefore, student responses concerning cognitive engagement and life satisfaction were a more accurate reflection of a school's fidelity of implementation and each student's psychological state in the midst of established school

practice. Recommendations for future research are more fully explained in Chapter 5 as longitudinal data and a broader sampling of the various types of private schools would strengthen the conclusions made from the collection and analysis of data.

The second stage of conducting research for the following program evaluation was the establishment of administrative and faculty interview protocols (Appendices F and G) to insure standardization of information elicited and ethical practice to protect the anonymity of those participating. Individual interviews were conducted in private in each administrator's office or faculty member's classroom and digitally recorded if given consent by each participant. After receiving administrative approval of both protocols, interviews were scheduled at the discretion of each school's administration.

Data Collection

A description follows of the data that were collected in answer to each of the proposed evaluation questions.

What were the perceptions related to adolescent needs that led to the establishment of a distinct middle school program? According to the CIPP model, a primary objective of evaluation is identifying those things that are necessary or useful for fulfilling a defensible purpose (Stufflebeam & Shinkfield, 2007). In order to evaluate the context of each middle school program, administrative personnel, including school board members, principals, headmasters, and other relevant stakeholders who contributed to the decision to introduce a middle school program, were interviewed and foundational documents were reviewed when made available. Documents related to the founding of middle school programming included minutes from school board meetings, school handbooks, accreditation records, and any other related information to the establishing of a middle school. These qualitative data were collected to identify the perceived needs of

adolescents by school stakeholders and reasons cited for establishing a distinct educational program to meet adolescent needs.

What opportunities were afforded teachers to receive training in the process of implementing components of the middle school program? Questions of process, according to the CIPP model, are aimed at providing an ongoing check on a program's implementation and documentation of the process (Stufflebeam & Shirkfield, 2007).

Qualitative data were collected in two parts to document teacher training in the process of implementing components of each middle school program. First, interviews of administrative personnel were conducted to identify their perceptions of the opportunity for teachers to receive adequate training in the process of implementing components of the middle school program. Second, middle school teachers and support personnel of each school were interviewed individually to identify their perceptions of the opportunity to receive adequate training in the process of implementing components of the middle school program.

What opportunities were afforded teachers to have questions or concerns addressed during training and implementation of a middle school concept? Included as a process question and again divided among two perspectives, qualitative data were collected on the opportunities of teachers to have their concerns acknowledged in the process of implementing a middle school program. First, interviews of administrative personnel were conducted to identify their perceptions of the opportunity for teachers to have questions or concerns addressed during training and implementation of a middle school concept. Secondly, middle school teachers and support personnel of each school were interviewed individually to identify their perceptions of the opportunity to have questions or concerns addressed during training and implementation of a middle school

concept.

To what level are the characteristics of adolescent education (“middle school concept”) being implemented? According to the CIPP model, the purpose of product questions are to measure, interpret, and judge an enterprise’s achievements (Stufflebeam & Shirkfield, 2007). As with previous evaluation questions, this question was divided between the perspectives of administration and faculty in assessing the implementation of the essential characteristics of adolescent education. Quantitative data were collected using the National Middle School Survey developed by Alexander and McEwin (1989). Being divided into two parts consisting of which middle school concept characteristics are valued and which are actually being implemented (McEwin & Greene, 2011), the survey instrument assessed each of the 16 characteristics of the middle school concept as delineated in *This We Believe* (AMLE, 2010).

After administering the National Middle School Survey to the faculty and administration of each school through an electronic link to an online survey through Google Docs, the data from the approximately 10-20 middle level faculty at each school were averaged together in order to have one general level of implementation for each of the characteristics of the middle school concept being practiced and to compare this level with administrative perceptions of implementation. Each participant was asked to complete the survey over a period of several days with an email sent after the initial distribution to remind teachers of deadlines for participation. The only identifying information from each completed survey was the school to which that participant belongs; no individual information was included so that complete anonymity was maintained and results were cumulative for each school. Any member of the faculty or administration could choose to not participate; however, with the support of each Head of

School, the survey was administered with the expectation of participation, insuring that the data collected were accurate representations of that school's middle-level program and practices. Variation in responses was expected as each teacher implements middle school concept characteristics in accordance with subject needs and teaching experience; but the major components of a middle school concept were assumed to be common to the majority of participant responses of each school as they share common policies, facilities, and organizational structures.

According to the SEI, what are the current levels of psychological and cognitive engagement in each school's adolescent population? According to the MSLSS, what are the current levels of GLS in each school's adolescent population?

The final questions are product evaluations aimed at ascertaining the extent to which an evaluation met the needs of all rightful beneficiaries (Stufflebeam & Shirkfield, 2007).

The CIPP model assesses performance beyond only stated objectives but searches for both positive and negative unanticipated outcomes (Stufflebeam & Shirkfield, 2007).

The quantitative data collected from the SEI and MSLSS were self-reported assessments of adolescents' subjective psychological states that contributed to the full range of possible products of middle school programming. Cognitive engagement and life satisfaction data were intended to demonstrate the degree to which each school is guiding the academic and personal development of each student and supporting the overall health and wellness of adolescents as supported by the school's curricula, programming, and related policies inherent in a middle school concept (AMLE, 2010).

Each middle school student gaining parental consent was administered the SEI and MSLSS instruments during a designated period of class in February or March of 2015. With the exception of students who were absent, the data collected represented the

middle school population as a whole. Any parent was permitted to exclude his or her child from the study, if so desired; and anonymity of results was maintained, and students were not required to answer any question they were not comfortable responding to. Faculty was given specific instructions prior to administering the survey concerning the maintaining of anonymity. Similar to the SEI, the readability of the MSLSS is estimated to be at the 1.5 grade level; therefore, most students require little assistance in responding to the questions during administration (Huebner, 1994).

Data Analysis

The three sets of quantitative data from the National Middle School Survey, Student Engagement Inventory (SEI), and Multidimensional Student Life Satisfaction Scale (MSLSS) were entered into Statistical Package for the Social Sciences (SPSS) and analyzed using descriptive statistics. Cumulative scores were reported from the National Middle School Survey instrument along with specific scores for all items that correspond with each of the 16 characteristics of the middle school concept. Single-item and summed scores representing all questions associated for each subgroup of student engagement and life satisfaction were also reported from student surveys, with negatively keyed items being reverse-scored so that a high score on each survey indicated a high degree of satisfaction or life satisfaction. After entering the data into SPSS, missing scores were excluded in analyzing descriptive statistics and calculating measures of central tendency, with the exclusion of being included in calculating percentile rankings.

Descriptive techniques were used in analyzing the nominal and interval data of the survey instruments in answering the question of implementation level of the middle school concept and levels of student engagement and life satisfaction. Comparing the measures of central tendency between each subject school and within each school will

reveal not only which school implemented adolescent education more fully, but will serve to reinforce the validity of the middle school concept in general and the psychological state of adolescents attending each school in terms of cognitive engagement and life satisfaction.

After analyzing a wider picture of the data sets through frequency distributions, measures of central tendency were calculated to identify typical single-item and summed scores for the results of each of the survey items and corresponding characteristic groupings. The mean was calculated along with measures of variability, including standard deviation and corresponding standard error of measurement, along with response percentages to describe the distribution of scores for each survey item and groups of like items. Standard deviation is a measure of variability that indicates the dispersion of scores around the mean and is necessary in conjunction with using measures of relative standing to describe one score relative to a group of scores (Creswell, 2012).

Limitations

There were limitations in the methodology of this study in that there was only a single collection of data with a limited sample of students from private Christian schools, approximately 570. Findings were only generalizable to school environments sharing equal organizational structure and demographics, but evaluation is concerned primarily with providing specific information on a program without being concerned with generalizability to other settings (Fitzpatrick et al., 2012). Additionally, findings of this study were limited by the subjective nature of measuring cognitive student engagement and GLS as self-reports of the satisfaction of adolescent lives and school experiences are in contrast to the actual condition of their lives or schools (Dew & Huebner, 1994).

Measuring GLS is more variable as SWB has multiple facets that must be assessed through global judgments, momentary mood reports, physiology, memory, and emotional expression (Diener et al., 1999). Therefore, the MSLSS asks students to indicate the level of satisfaction on the condition of their lives only over the proceeding few weeks.

The particular use of surveys for this study was cross-sectional in design in order to gauge current opinions or beliefs at one point in time for the purpose of formal evaluation and therefore was limited in its use as results cannot be generalized from this sampling to the entire population of adolescents in private, Christian schools. The measurement of subjective constructs such as cognitive and psychological engagement and life satisfaction made for reduced generalizability and acted as a limitation of this study along with the variability of private school student populations and programming. Nevertheless, the validity and reliability of survey instruments used provided data useful in evaluating the implementation of the middle school concept and levels of cognitive engagement and GLS in order to ultimately make judgments on the value of middle school programs.

Chapter 4: Results

Introduction

The purpose of this study was to determine the level of implementing a middle school concept in three private Christian schools. Each of the schools of this study have implemented middle school programs to meet the unique developmental needs of adolescents, and to this point no formal evaluation had taken place to determine the level of fidelity with the essential characteristics of the middle school concept. The schools that implement the characteristics of effective adolescent education, including team teaching, common planning time, and adolescent-appropriate classroom instruction have demonstrated higher student achievement and improvements in achievement scores over time (Flowers et al., 2003). In addition to measuring middle school concept implementation, this study had a secondary purpose of measuring cognitive student engagement and GLS levels. Research demonstrates that higher levels of implementing a middle school concept should be accompanied by higher self-appraisal of the school and life experiences of adolescents as the linking of life satisfaction with cognitive engagement gives increasing strength to the middle school concept (Lewis et al., 2011). The middle school movement remains unequalled as the most powerful factor for improving the performance of young adolescents (Erb, 2006), and these academic and behavioral improvements should correlate with optimal mental health of middle school students (Gilman & Huebner, 2003). The findings were organized by evaluation questions as applied to each school individually.

Findings

Evaluation Question 1. What were the perceptions related to adolescent needs that led to the establishment of a distinct middle school program? In collecting

demographic information and researching the history of each middle school, the Head of School was asked how many years their school had been operating a middle school program and the reasons for creating separate programming for adolescents.

Additionally, each administrator was asked if this was created independently by the administration or mandated by a school board or other governing bodies that existed at the time of establishing a distinct middle school program. In response to these questions, the administration of each school claimed to be unaware of any records related to the original perceptions of adolescent needs or intentions of previous administrators and/or governing bodies in developing a distinct middle school program. Each school has had a middle school program in existence for multiple decades and was created either as a decision of administration due to the popularity and widespread acceptance of the middle school concept at that time, as advocated by parent groups in each school, or as a result of merging preexisting schools.

Administrators of all three schools responded that due to multiple changes to school leadership and a lack of maintaining written records, the justification for implementing original middle school programming has not been found. Each school lacked a comprehensive record of the changes to middle school practices and the justification for the adoption of a middle school program. As an example, one administrator responded, "I have gone back through the records and I cannot find this information . . . I could not find anything about when the 'middle school' came distinct." Previous middle school programming was described by school leaders and faculty to be disconnected from current practices that result from the need to continually adapt to the unique needs of adolescents from one year to the next. Apart from accreditation self-study requirements, the following study was the first formal program evaluation specific

to middle school practices conducted in any of the three schools, or as described by an administrator, “If there were squeaky wheels, that would get some grease, but for the most part just maintain status quo . . . now it’s middle school’s turn to do some self-reflection.”

Evaluation Question 2. What opportunities were afforded teachers to receive training in the process of implementing components of the middle school program? To collect qualitative data in answer to Evaluation Questions 2 and 3, middle school administration, faculty, and support personnel (academic services and guidance counseling) consenting to participate were interviewed individually according to faculty and administrative interview protocols (Appendices F and G). As it relates to Evaluation Question 2, faculty and administration were asked, “Has sufficient opportunity been provided to teachers to receive training in implementing the essential components of the middle school program? (Provide an example.)” Additionally administrators were asked, “Who has input into the topics, planning and delivery of professional development in your middle school? (Provide an example.)” A summary of administration and faculty perceptions of professional development/training is shown in Table 6. Characteristic responses for Table 6 were selected due to their repetition and development of themes confirmed by data collected from administration and faculty surveys of middle school practices. The perceptions of faculty and administration of each school in receiving specific professional development or training in the use of technology and 21st century learning are presented under Evaluation Question 4 as these data were collected as part of the National Middle School Survey.

Table 6

Characteristic Responses of Administration and Faculty for Training/Professional Development in Implementing Components of the Middle School Program

	Administration	Faculty
School A	Faculty meetings are for the purpose of professional development. More than in the past, now more intentional. Total involvement and gathering collective input.	Principal demonstrating new teaching techniques. Dramatic change from previous years. Consistently suggesting resources and teaching strategies.
School B	Currently focused on technology implementation. A lot of time focused on mission and Biblical integration. Teacher surveys to identify important issues.	On and off, spotty at times. Training only using webinars, none for several years. Not geared specifically for middle school.
School C	Teachers learning about middle school programming by having two teachers with extensive experience. Professional development improvement a major recommendation of accreditation. Teachers would say that the principal wants our help and values our opinion.	Is stressed depending upon which administrator. Training not a necessity. Will be done more in the future.

School A. Seventeen faculty members and four administrators of the middle school program were interviewed at School A. Faculty members overwhelmingly agreed that opportunities have been afforded teachers to receive training in implementing components of a middle school program. Middle school faculty repeatedly stated that there has been a significant change in the past year with the addition of new administration that emphasizes professional development but in highly collaborative

ways. For example, according to teachers, the administration used weekly meetings for the purpose of demonstrating various teaching techniques and bringing their attention to various topics in adolescent literature and research, or as described by a faculty member,

Our principal right now is doing a really good job of helping us learn ways to teach in the classroom and the way he does that is he runs his faculty meetings that way . . . demonstrating something he wants us to know . . . something you can use in the classroom.

Another faculty member stated that administration “does a great job of giving us what we need, the tools and the toolbox . . . to be effective at what we do.” The middle school administration has developed a system of individual workgroups covering various aspects of best practices in adolescent education to initiate overall program improvement by each work group presenting their findings to the whole faculty to facilitate self-reflection and further discussion. Although various teachers stated they were hired already possessing a certain skill set and do not consider the training to have significantly influenced their own instructional strategies, faculty were nearly unanimous in agreeing that ideas and discussion concerning implementation of program components consistently occurred across middle school faculty, grade level, and subject team meetings but could be improved with more individualized training as a follow-up to initial training sessions. The administration, according to faculty, embraces and pursues the role of instructional leaders and additionally provides sufficient training by exposing the faculty to resources assisting in the implementation of middle school program components.

Individual interviews of administrators of School A revealed a consensus that weekly meetings have the primary purpose of professional development and training in implementing middle school practices more effectively. The faculty is encouraged to

pursue individual interests for the benefit of the whole group, and administration admitted to being intentional in empowering teachers to share knowledge of best practices between one another, looking to the skills and experience of faculty as a major resource in providing necessary training and program improvement. Throughout the interviews there was a stated need and desire to continually improve and take advantage of more opportunities for professional development in the years to come, and administration detailed anticipated improvements based on the gathering and evaluation of ideas and data throughout the past school year.

When specifically asked who has input into the topics, planning, and delivery of professional development, administrators of School A responded that there is a collective input in identifying topics and accommodating teacher interests before decisions are made administratively. As stated by an administrator in describing the middle school principal, “Done a great job of expanding the sphere . . . gets the teachers feeling like yeah, my input is valid.” As described by administration, input is gathered mainly through use of faculty surveys and observations before moving in a more unified direction but remaining flexible to introduce additional training if the need arises.

School B. Fifteen middle school faculty members and two administrators were interviewed at School B. From faculty interviews, it was repeatedly stated that training was not consistent nor was it always applicable to the specific needs of adolescents. As stated by a faculty member on having received training in implementing a middle school concept, “Not really, that’s probably one thing where it’s kind of been a struggle here.” There was agreement among faculty that training did take place throughout the year, but it was sporadic and had been singularly focused over the past year on implementing new technology into classroom practices, predominantly being limited to whole group

webinars that insufficiently addressed individual needs. Training was described by faculty as being varied and more used at the beginning of the year in standardizing the practice of middle school policy and communicating general expectations of administration.

A significant number of teachers described the process of training as being initiated more by teachers and occurring in less formalized ways among grade-level teams due to a strong sense of community among grade-level teams and the ability to implement components of a middle school program and meet the unique needs of adolescents independent of administration. A faculty member described the independence of grade-level teams by stating, “We are a tightknit group, we work very well together . . . it’s not faculty and administration, it’s faculty.” In addition to technology training, teachers stated that the administration was responsive to the needs of faculty if a particular policy or practice needed to be addressed with additional training, yet faculty commonly stated that most needs were addressed within grade-level teams before seeking support from administration and that professional development or training is minimal. As stated by another faculty member, “Middle school specific, I don’t know that we have really had anything directed toward us professionally.”

The administration of School B described training of faculty in implementing middle school program components as having had strengths and weaknesses from year-to-year and the current weakness is an overemphasis on technology implementation, but administration anticipates focusing on instructional strategies and classroom management in the coming year. As stated by an administrator, “There’s years where we’re focused primarily on certain things and other things just kind of get done when they get done.” Administrators stated that there was designated professional development that was

scheduled monthly along with training that takes place at the beginning of the year during teacher in-service days.

For School B, the identifying of professional development topics was described by administration as a cooperative process between the administrative team in setting a schedule before the school year begins and dividing faculty into designated work groups between middle and high school to focus on appropriate topics for each department. It was repeated by administrators of School B that teacher input was highly valued in addressing topics relevant to faculty needs through the use of teacher surveys and standardized testing results. The primary focus of professional development according to each administrator was to reinforce the larger mission of the school and improve upon Biblical integration across all levels and departments. As stated by an administrator, “I think our teachers understand, I mean definitely we spend a lot of time talking about mission . . . keeping everything focused on Scripture and on preparing students.”

School C. Nine middle school faculty members and one administrator were interviewed at School C. Faculty interviews revealed little to no training in implementing components of a middle school program, apart from training in school management software occupying what time was set aside for professional development. As described by a faculty member, “At this point I would say no . . . it’s something we’re looking to do more of. I mean he’s new, a new principal, so sounds like he’s looking to implement a lot of that stuff.” Teachers agreed that administration supported offering opportunities for further training if so desired by any faculty, yet teachers stated that training in middle school components was only necessary as it related to their particular subject. Additionally, teachers unanimously stated that the amount of training has fluctuated with various administrators over the past several years.

Apart from training in technology, training for Biblical integration was also stated as a significant part of any training received, but a common theme was that training in implementing middle school components was not as significant as the experience of having taught at the middle level due to the difficulty of meeting an extremely broad range of adolescent needs. As stated by another faculty member, “It’s more or less a learn from experience kind of thing . . . there’s just no way a classroom or any type of training can get you ready for the age group . . . definitely no.” Training was limited, according to teachers interviewed, to specific subject area needs with the possibility of being expanded in the future.

The administration for School C stated that due to financial constraints, professional development has been hampered and would be the major recommendation to emerge from accreditation self-studies over the past school year. As stated by the administrator, “On a range of one to ten, ten being effective, excellent and one being non-existent were about a four.” Concerning the impact of limited finances, this same administrator stated, “Professional development took a huge hit.” To supplement the lack of training specific to implementing a middle school concept, the administration had designated teachers with extensive middle-level teaching experience to be a source of expertise to inform and maintain best practices across middle school programming. Opportunity is provided to the faculty at the end of the school year to rate the performance of administration and the overall effectiveness of middle school programming which is jointly reviewed by the administration and School Board to identify needed areas of professional development and general program improvement. As described by administration, the main source of training relative to meeting the unique needs of adolescents happened in faculty meetings which allowed for reinforcement of

best practices and consistent implementation of school policies but lacked formalized training specific to the essential characteristics of adolescent education apart from school-wide technology implementation.

Evaluation Question 3. What opportunities were afforded teachers to have questions or concerns addressed during training and implementation of a middle school concept? Middle school faculty members were asked in individual interviews, “Did the teachers in your building have ample opportunity to have questions or concerns addressed during training and implementation of middle school program components? (Provide an example.)” Related to this, faculty members were also asked, “Would you consider the culture of your middle school one of collaboration, where the input of faculty members are solicited and valued? (Provide an example.)” Both interview questions attempted to gather qualitative data of teacher perceptions of mainly administrative efforts to elicit faculty input but also elicited perceptions on collaboration among faculty. In summary, Table 7 shows characteristic responses of faculty who were selected due to their repetition and development of themes confirmed by data collected from administration and faculty surveys of middle school practices.

Table 7

Characteristic Responses of Faculty for Opportunity to Have Questions or Concerns Addressed and Culture of Collaboration

Faculty	
School A	<p>Questions or concerns addressed quickly.</p> <p>My opinion matters here and is respected.</p> <p>Administration wanting a conversation to discuss possible direction of program.</p>
School B	<p>Hard to get a direct answer for middle school as there is no middle school principal.</p> <p>Most collaboration is self-initiated, not necessarily solicited by administration.</p> <p>Faculty concerns need a liaison to take to administrative level as decisions don't reflect teacher input all the time.</p>
School C	<p>Very close faculty to allow concerns to be addressed and good follow-up by administration.</p> <p>Intention is there and is done informally, but needs to become a formalized practice.</p> <p>Easy to collaborate in small school environment.</p>

School A. The faculty of School A overwhelmingly agreed that questions and concerns are directly addressed and that specific time was set aside for this purpose during weekly faculty meetings. Generally faculty members were able to articulate a formal process of eliciting questions or concerns at both administrative and grade team levels and readily provided examples of each. With several teachers having indicated a need to expand opportunities to have specific questions or concerns addressed on an individual level, especially for teachers outside grade-level teams, the majority of teachers stated an improvement of response time to their concerns and improved approachability of administration to discuss issues informally either individually or as a

team.

With having new leadership at the start of the school year for the program at School A, a significant portion of teachers stated they perceived a strong, purposeful desire by administration to solicit input and create a stronger culture of collaboration. As stated by a faculty member, “With new leadership most concerns have been addressed . . . we are all working towards a common goal . . . they would all think their questions and concerns are either being or have been addressed.” The faculty stated repeatedly that their input was considered necessary and the collective experience of faculty was considered by administration as an essential asset in meeting adolescent needs. The strongest evidence of collaboration between administration and faculty, as stated by teachers, was the use of work groups to research and propose improvements in middle school practices. As described by a faculty member when asked if the culture is one of collaboration, “Yes, this year, I would say this year, we have work groups . . . it’s very, very collaborative.” Additionally, faculty members stated that in contrast to previous administrators, current administration has intentionally established a structure that requires collaboration and enables empowerment at a program-wide level which indirectly has contributed to a higher amount of collaboration within grade- and subject-level teams.

School B. The faculty of School B stated that although middle school administration was responsive to faculty concerns or questions and often defers to the solutions presented by grade-level team members, the process was viewed by teachers as being a collaborative effort initiated by faculty. When asked if the culture of the middle school is one of collaboration where the input of faculty members is solicited and valued, faculty overwhelmingly described the process as an opportunity or availability more than

an intentional process of solicitation by administrators. The middle school program lacked a formal administrator and, according to teachers, therefore lacked procedures to gather input program-wide in collaborative ways separate from the Upper School.

As described by faculty, grade-level teams worked as distinct units in answering questions and addressing concerns as they applied to their particular areas and students. As stated by a faculty member, “We tend in our middle school to really, really lock tight with the teachers on our same grade level . . . that kind of thing we just handle on our own.” Without team leaders at the grade or subject level, teachers repeatedly stated the need to have a liaison or team leader that could establish better communication between administration and faculty. Teachers perceive adequate support from administration and that administration is responsive to their needs, but generally input was not solicited to the same degree as it was valued. As described by a faculty member, “I think that we have the opportunity, I don’t know that they want to listen to everything that we have to say about it . . . they listen, I don’t always think they agree with what we say.”

Responding specifically to the question of teachers having ample opportunity to have questions or concerns addressed, a faculty member stated,

I think we have ample opportunity to express questions and concerns. We don’t always get definitive answers for those, so you know sometimes we’ll bring a concern to the table and they’ll have an answer right away and sometimes they’ll say we need to come back to that and it may or may not actually get addressed.

Faculty members unanimously agreed that communication between grade-level teams was extremely strong and therefore issues and concerns are handled informally as a team with administrative input solicited when necessary.

School C. The middle school faculty at School C indicated support from

administration to present questions or concerns but generally lacked examples of formal processes by administration to elicit their input. Relying more upon a smaller school community and the ease of addressing needs in more informal ways, faculty interviews revealed strong intentions by administration to collaborate with teachers, but this was repeatedly stated by teachers as being accomplished mainly within grade-level teams. As described by a faculty member,

I think between the colleagues, you know the teachers themselves, yeah we do . . .

I don't really feel like administration as far as wanting collaboration from us in the way the school is run . . . it's not so much a let's all work together to develop the plan for the school.

According to teachers, school policy was not influenced by the collective input of faculty, despite the desire of administration to solicit input. Most teachers stated that administration had an "open door policy" and a high level of knowledge and involvement in day-to-day operations of the middle school, but teachers considered questions or concerns to be most effectively addressed by grade-level teams. None of the faculty members interviewed stated the use of team leaders in addressing concerns as teams generally initiated change informally independent of administration due to a lack of administration specific to middle school and due to the small size of the middle school staff. As stated by a faculty member,

I would say, yes, in the realm of like individual student success. Because we're kind of small we don't have like a middle school science department or a middle school math department or whatever, but we all teach the same students and so yeah, I'd say that we talk and collaborate.

This self-described small school identity was reiterated by most teachers as being an

advantage of the middle school “community” to provide individualized instruction and support with more informal, personal processes.

Evaluation Question 4. To what level are the characteristics of adolescent education (“middle school concept”) being implemented? To address this question, the following data were compiled and analyzed for all three schools from the National Middle School Survey (Appendix A). As shown in Table 8, the number of respondents for each school included the majority of teachers and at least one administrator for middle school programming. Results are grouped under each of the 16 essential characteristics of adolescent education for ease of comparison. The findings for implementation of middle school practices are further divided in two parts looking at the mean perceptions of both the administration and faculty for each school, along with presenting the combined percentages of administration and faculty for those survey items with significant disparities.

Table 8

Middle School Faculty and Administration Responses to National Middle School Survey

School	Faculty		Administration	
	Total Members	Responses	Total Members	Responses
A	25	29 ^a	4	2
B	19	15	2	1
C	10	7	3	3

Note: ^a Administrators with teaching duties grouped in faculty survey responses.

The first essential characteristic of effective adolescent education is that educators value young adolescents and are prepared to teach them (AMLE, 2010). The survey

items used to measure characteristic one asked participants to indicate their opinion about the degree of importance of having educators who value working with young adolescents and rate the level of implementation in their specific middle school. Table 9 compares the perceptions of the administration and faculty of the school-wide level of importance and implementation of characteristic one by using a 4-point measurement scale with 3.00 signifying “Very Important” and 3.00 signifying “Highly Implemented.” The mean response of the administration and faculty of each school for importance of valuing working with young adolescents was high as all responses were at 2.50 or above. With the exception of the administration of School B, all responses were also at a level of 2.50 or above for implementation of characteristic one.

Table 9

Administration and Faculty Response to Teachers Who Value Working With Young Adolescents

	Administration				Faculty			
	Importance		Implementation		Importance		Implementation	
	M (SE)	SD	M (SE)	SD	M (SE)	SD	M (SE)	SD
School A	2.50 (.50)	.71	2.50 (.50)	.71	2.93 (.05)	.26	2.61 (.09)	.50
School B	3.00 (-)	-	2.00 (-)	-	3.00 (.00)	.00	2.67 (.13)	.49
School C	3.00 (.00)	.00	2.67 (.33)	.58	2.86 (.14)	.38	2.57 (.30)	.79

Note: 4-point measurement scale for Importance (3=Very Important, 2=Important, 1=Unimportant, 0=Very Unimportant); Implementation (3=Highly Implemented, 2=Implemented, 1=Limited Implementation, 0=Not Implemented).

As shown in Table 10, in which all responses for administration and faculty were combined, the teachers in each school perceived higher levels of importance in comparison to implementation, with the exception of the administration of School A. Collectively, all three schools responded at the highest level of importance for having educators who value working with young adolescents with a response of 93% and the implementation level averaging slightly below “Highly Implemented” with response percentages ranging from 58 to 70 for this highest level of implementation.

Table 10

School Response Percentages to Teachers Who Value Working With Young Adolescents

School	Importance				Implementation			
	VI	I	U	VU	HI	I	LI	NI
A ^a	90.3	9.7	0	0	58.1	38.7	0	0
B	100	0	0	0	62.5	37.5	0	0
C	90	10	0	0	70	20	10	0

Note: Importance (VI=Very Important, I=Important, U=Unimportant, VU=Very Unimportant); Implementation (HI=Highly Implemented, I=Implemented, LI=Limited Implementation, NI=Not Implemented); ^a Percentage total less than 100 with inclusion of nonresponses.

In regards to being prepared to teach adolescents, Table 11 shows the perceptions of administration and faculty when asked to indicate their opinion about the degree of importance of having teachers who hold middle-level certification and rate the level of implementation at their respective middle school. With both components comprising the first essential characteristic of the middle school concept, all three schools demonstrated a lower level of importance and implementation for being prepared to teach adolescents in comparison to having educators who value working with adolescents. The mean

response of the faculty of all three schools for implementation of holding certification/licensure was below 2.00 (“Implemented”) on a 4- point Likert scale, with the perceptions of School C below “Limited Implementation” at 0.86.

Table 11

Administration and Faculty Response to Teachers Who Hold Middle Level Teacher Certification/Licensure

	Administration				Faculty			
	Importance		Implementation		Importance		Implementation	
	M (SE)	SD	M (SE)	SD	M (SE)	SD	M (SE)	SD
School A	2.00 (.00)	.00	2.00 (.00)	.00	2.03 (.11)	.57	1.82 (.07)	.39
School B	2.00 (-)	-	2.00 (-)	-	2.07 (.21)	.80	1.67 (.16)	.62
School C	2.33 (.33)	.58	1.33 (.33)	.58	1.14 (.26)	.69	0.86 (.26)	.69

Note: 4-point measurement scale for Importance (3=Very Important, 2=Important, 1=Unimportant, 0=Very Unimportant); Implementation (3=Highly Implemented, 2=Implemented, 1=Limited Implementation, 0=Not Implemented).

As shown in Table 12, in which all responses for administration and faculty were combined, each response choice concerning the importance and implementation of teachers holding middle-level teacher certification/licensure varied significantly between schools. School C had the lowest levels of perceived importance and implementation and was the only school to have administration and faculty responding at the lowest perception levels of “Very Unimportant” (10%) and “Not Implemented” (20%). School A had 80.1% of responses for “Implemented” compared with School C having had 80%

of responses for “Limited Implementation” or “Not Implemented.”

Table 12

School Response Percentages to Teachers Who Hold Middle School/Level Teacher Certification/Licensure

School	Importance				Implementation			
	VI	I	U	VU	HI	I	LI	NI
A ^a	16.1	71	12.9	0	0	80.6	16.1	0
B ^a	31.3	43.8	2.5	0	6.3	56.3	37.5	0
C	10	40	40	10	0	20	60	20

Note: Importance (VI=Very Important, I=Important, U=Unimportant, VU=Very Unimportant); Implementation (HI=Highly Implemented, I=Implemented, LI=Limited Implementation, NI=Not Implemented); ^a Percentage total less than 100 with inclusion of nonresponses.

Table 13 shows the administration and faculty estimates of the number of core teachers (math, language arts, science, social studies) who have had specific college or university professional preparation to teach at the middle level or those who hold separate middle-level teacher certification/licensure. Collectively, the perception of the faculty and administration of all three schools is that between 61-70% of teachers are estimated to have received professional preparation to teach at the middle level with less than 50% having obtained certification/licensure for middle-level instruction. The administration of School B demonstrated the greatest disparity between perceptions of the percentage of faculty having received professional preparation (91-100%) and those holding licensure/certification at the middle level (0-10%).

Table 13

Administration and Faculty Estimates of the Number of Core Teachers to Have Received Professional Preparation or Hold Middle Level Certification/Licensure

School	Administration				Faculty			
	Professional Preparation		Hold Separate Certification/License		Professional Preparation		Hold Separate Certification/License	
	M (SE)	SD	M (SE)	SD	M (SE)	SD	M (SE)	SD
A	8.50 (1.50)	2.12	9.00 (1.00)	1.41	8.21 (.33)	1.76	5.55 (.48)	2.59
B	10.00 (-)	-	1.00 (-)	-	6.80 (.71)	2.76	4.40 (.77)	2.97
C	6.67 (1.86)	3.21	3.67 (1.33)	2.31	6.71 (1.51)	3.99	4.14 (1.30)	3.44

Note: 10-point measurement scale (1=0-10%, 2=11-20%, 3=21-30%, 4=31-40%, 5=41-50%, 6=51-60%, 7=61-70%, 8=71-80%, 9=81-90%, 10=91-100%).

According to Table 14, in which all responses for administration and faculty were combined, the percentage for each response choice varied widely in the perception of faculty having had professional preparation to teach at the middle level as compared to those who hold separate middle-level teacher licensure/certification. For having at least half of the faculty with some kind of professional preparation (51-60% and above), collectively School A responded at 90.3%, School B at 68.9%, and School C at 70%. In comparison, the percentage for at least half the faculty holding certification/licensure (51-60% and above) was substantially lower at 51.7% for School A, 31.3% for School B, and 30% for School C.

Table 14

School Response Percentages of the Number of Core Teachers to Have Received Professional Preparation to Teach at the Middle Level or Hold Middle Level Certification/Licensure

School	Professional Preparation			Certification/Licensure		
	A	B	C	A	B	C
0-10%	0	0	20	0	12.5	40
11-20%	0	12.5	0	16.1	31.3	0
21-30%	3.2	0	10	12.9	12.5	10
31-40%	0	6.3	0	3.2	6.3	0
41-50%	6.5	12.5	0	16.1	6.3	20
51-60%	3.2	6.3	0	9.7	12.5	0
61-70%	12.9	12.5	0	3.2	0	20
71-80%	25.8	18.8	30	22.6	0	0
81-90%	19.4	0	20	9.7	12.5	10
91-100%	29	31.3	20	6.5	6.3	0

The second essential characteristic of effective adolescent education is that students and teachers are engaged in active, purposeful learning as demonstrated by having students play an active role in their learning by working together with teachers in the planning and carrying out of educational activities (AMLE, 2010). Table 15 compares the perception levels of faculty and administration when asked to indicate their opinion about the degree of importance of having students and teachers engaged in active learning and rate the level of implementation at their specific middle school. The

administration and faculty of all three schools responded with importance and implementation levels above 2.00 (“Implemented”) on a 4-point Likert scale, with the exception of the administration of School C responding with 2.00 for implementation; this compared with an importance level of 2.33 for active learning being practiced at this same school. Among all three schools, the collective mean for importance of engaged and active learning was slightly below “Very Important” at 2.84, and the mean for implementation was slightly lower at 2.38.

Table 15

Administration and Faculty Response to Students and Teachers Engaged in Active Learning

	Administration				Faculty			
	Importance		Implementation		Importance		Implementation	
	M (SE)	SD	M (SE)	SD	M (SE)	SD	M (SE)	SD
School A	3.00 (.00)	.00	2.50 (.50)	.71	2.97 (.03)	.19	2.46 (.10)	.51
School B	3.00 (-)	-	3.00 (-)	-	2.73 (.12)	.46	2.27 (.12)	.46
School C	2.33 (.33)	.58	2.00 (.58)	1.00	2.71 (.18)	.49	2.29 (.18)	.49

Note: 4-point measurement scale for Importance (3=Very Important, 2=Important, 1=Unimportant, 0=Very Unimportant); Implementation (3=Highly Implemented, 2=Implemented, 1=Limited Implementation, 0=Not Implemented).

As shown in Table 16, in which all responses for administration and faculty were combined, the percentage for each choice response demonstrated similarity between all three schools as the majority of responses were “Very Important” or “Important” and

“Highly Implemented” or “Implemented.” Only School C had responses (10%) below “Implemented.”

Table 16

School Response Percentages to Students and Teachers Engaged in Active Learning

School	Importance				Implementation			
	VI	I	U	VU	HI	I	LI	NI
A ^a	96.8	3.2	0	0	45.2	51.6	0	0
B ^a	75	25	0	0	31.3	68.8	0	0
C	60	40	0	0	30	60	10	0

Note: Importance (VI=Very Important, I=Important, U=Unimportant, VU=Very Unimportant); Implementation (HI=Highly Implemented, I=Implemented, LI=Limited Implementation, NI=Not Implemented); ^a Percentage total less than 100 with inclusion of nonresponses.

The third essential characteristic of effective adolescent education is the curriculum is challenging, exploratory, integrative, and relevant (AMLE, 2010). Administration and faculty were asked to indicate their opinion about the degree of importance of having curriculum that is relevant, challenging, integrative, and exploratory and to rate the level of implementation at their specific middle school. Table 17 shows all schools to have responded at a level of at least 2.00 (“Important”/“Implemented”) for both categories. The collective mean for importance was 2.81 with a median of 3.00 (“Very Important”) compared with the collective mean for implementation of 2.13 with a median of 2.00 (“Implemented”).

Table 17

Administration and Faculty Response to Curriculum That Is Relevant, Challenging, Integrative, and Exploratory

	Administration				Faculty			
	Importance		Implementation		Importance		Implementation	
	M (SE)	SD	M (SE)	SD	M (SE)	SD	M (SE)	SD
School A	2.50 (.50)	.71	2.00 (.00)	.00	2.86 (.07)	.74	2.11 (.14)	.74
School B	3.00 (-)	-	3.00 (-)	-	2.73 (.12)	.46	2.13 (.17)	.64
School C	2.67 (.33)	.58	2.00 (.58)	1.00	2.86 (.14)	.38	2.14 (.14)	.38

Note: 4-point measurement scale for Importance (3=Very Important, 2=Important, 1=Unimportant, 0=Very Unimportant); Implementation (3=Highly Implemented, 2=Implemented, 1=Limited Implementation, 0=Not Implemented).

Related to characteristic three, administrative surveys included the question, “Does your school have an interest course/mini-course program (short term, student interest-centered courses sometimes called exploratory courses)?” Only the administration of School C affirmed having an interest course/mini-course program, which partly contradicts the results shown in Table 17 for Schools A and B.

According to Table 18, in which all responses for administration and faculty were combined, the percentage for each response choice was similar between all three schools in having higher levels of importance in comparison to implementation. One hundred percent of all three schools responded with “Very Important” or “Important,” yet School A had a lowest response of 77.4% for “Highly Implemented” and “Implemented,”

compared with 87.6% for School B and 90% for School C.

Table 18

School Response Percentages to Curriculum is Relevant, Challenging, Integrative, and Exploratory

School	Importance				Implementation			
	VI	I	U	VU	HI	I	LI	NI
A ^a	83.9	16.1	0	0	29	48.4	19.4	0
B ^a	75	25	0	0	31.3	56.3	12.5	0
C	80	20	0	0	20	70	10	0

Note: Importance (VI=Very Important, I=Important, U=Unimportant, VU=Very Unimportant); Implementation (HI=Highly Implemented, I=Implemented, LI=Limited Implementation, NI=Not Implemented); ^a Percentage total less than 100 with inclusion of nonresponses.

Connected with characteristic three is the emphasis on fundamental subjects and skills. The administration and faculty were asked to indicate their opinion about the degree of importance of having a strong focus on basic subjects and rate the level of implementation at their specific middle school. Table 19 shows the perceptions of each school having a strong focus on the basic subjects of language arts, social studies, mathematics, and science. Unlike other middle school practices measured, the administration of all three schools responded with equal or higher levels of implementation as compared to levels of importance for focusing on basic subjects. Contrasting with these results is the faculty of School B who responded with a level slightly below “Very Important” (2.80), yet an implementation level of 1.73, the only school to register a perception level less than “Implemented.” The overall mean of administration and faculty for importance was 2.61 compared with an overall mean for implementation of 2.27 on a 4-point Likert scale.

Table 19

Administration and Faculty Response to Strong Focus on Basic Subjects

	Administration				Faculty			
	Importance		Implementation		Importance		Implementation	
	M (SE)	SD	M (SE)	SD	M (SE)	SD	M (SE)	SD
School A	2.50 (.50)	.71	3.00 (-)	-	2.52 (.11)	.57	2.29 (.13)	.71
School B	3.00 (-)	-	3.00 (-)	-	2.80 (.11)	.41	1.73 (.18)	.70
School C	2.33 (.33)	.58	2.67 (.33)	.58	2.71 (.18)	.49	3.00 (.00)	.00

Note: 4-point measurement scale for Importance (3=Very Important, 2=Important, 1=Unimportant, 0=Very Unimportant); Implementation (3=Highly Implemented, 2=Implemented, 1=Limited Implementation, 0=Not Implemented).

As seen in Table 20, in which all responses for administration and faculty were combined, percentages for importance and implementation of a strong focus on basic subjects varied between the three schools. School A had a response of 96% for “Very Important” or “Important” along with 100% for Schools B and C. Responses to “Highly Implemented” or “Implemented” were significantly lower for School B at 62.6% compared with 87.1% for School A and 100% for School C.

Table 20

School Response Percentages to Strong Focus on Basic Subjects

School	Importance				Implementation			
	VI	I	U	VU	HI	I	LI	NI
A ^a	54.8	41.9	3.2	0	38.7	48.4	3.2	3.2
B ^a	81.3	18.8	0	0	18.8	43.8	37.5	0
C	60	40	0	0	90	10	0	0

Note: Importance (VI=Very Important, I=Important, U=Unimportant, VU=Very Unimportant); Implementation (HI=Highly Implemented, I=Implemented, LI=Limited Implementation, NI=Not Implemented).

^a Percentage total less than 100 with inclusion of nonresponses.

The National Middle School Survey also included the measurement of characteristics of global education that emphasize learning about problems and issues that cut across national boundaries and the interconnectedness of cultural, ecological, economic, political, and technological systems (Alexander & McEwin, 1989). Table 21, in which all responses for administration and faculty were combined, shows perception levels of each school when asked to indicate the level of emphasis placed on each aspect of global education. The percentage for each response choice reveals variation in each school's perceptions of the emphasis on global education aspects, despite the average highest response choice for all categories being "Emphasized." Differences were more clearly evident for the percentages of "Highly Emphasized" and "Emphasized" for School B with 18% for critical thinking, 24% for communication, and 13% for bilingual opportunity in comparison to the average response for Schools A and C of 77% for critical thinking, 90% for communication, and 77.5% for bilingual opportunity. School A had higher levels for creativity/innovation at 81% and collaboration at 90% in

comparison to School B at 69% and School C at 60% for both aspects, yet School C had no responses of “Highly Emphasized” for either.

Table 21

School Response Percentages for Emphasis Placed on Global Education in School Curriculum

	School A ^a				School B ^a				School C			
	HE	E	SE	NE	HE	E	SE	NE	HE	E	SE	NE
Critical Thinking	23	61	13	0	13	5	31	6	30	40	30	0
Communication	29	61	7	0	19	5	31	0	20	70	10	0
Creativity/ Innovation	23	58	13	3	13	56	19	13	0	60	40	0
Collaboration	32	58	7	0	13	56	25	6	0	60	40	0
Science	19	71	3	0	13	69	13	6	20	60	20	0
Mathematics	19	74	3	0	19	75	0	6	30	50	20	0
Social Justice/ Civic Literacy	13	42	42	0	6	56	25	13	40	30	30	0
Bilingual Opportunity	23	42	19	13	0	13	38	50	60	30	10	0
Leadership	16	29	45	7	19	50	31	0	40	20	40	0
Integration	13	39	42	3	19	44	38	0	10	40	50	0

Note: HE=Highly Emphasized, E=Emphasized, SE=Somewhat Emphasized, NE=Not Emphasized;

^aPercentage totals less than 100 with inclusion of nonresponses.

Included with global education on the National Middle School Survey are additional statements concerning a school’s focus on global awareness through teachers helping students develop an understanding of other cultures and diversity, promoting global awareness and multiculturalism in the curriculum, and rigorous academic

standards to help prepare students to succeed in a global society. Table 22 displays the results of administration and faculty when asked to indicate their level of agreement to each statement on a 4-point Likert scale. Half of all global awareness categories averaged a response below 3.00 (“Agree”) with the faculty of School B averaging 2.57 for all three categories and the faculty of School C at a significantly higher average of 3.34.

Table 22

Administration and Faculty Response for Global Awareness

School	Administration			Faculty		
	A	B	C	A	B	C
	M (SE) SD			M (SE) SD		
Develop understanding of diversity	3.00 (.00) .00	3.00 (-) -	3.33 (.33) .58	2.86 (.10) .52	2.86 (.19) .74	3.43 (.20) .53
Promote multiculturalism in curriculum	2.50 (.50) .71	2.00 (-) -	3.33 (.33) .58	2.72 (.10) .53	2.53 (.19) .74	3.29 (.29) .76
Rigorous academic standards	3.00 (.00) .00	3.00 (-) -	2.67 (.33) .58	2.86 (.11) .58	2.33 (.21) .82	3.29 (.18) .49

Note: 4-point Likert scale (4=Strongly Agree, 3=Agree, 2=Disagree, 1=Strongly Disagree).

As shown in Table 23, in which all responses for administration and faculty were combined, each school had highest responses for “Agree,” with the exception of School B that had “Disagree” as the highest percentage of response for rigorous standards to help students succeed in a global society with 43.8%. School B was also the only school to

have responses for all four choices in all three statements with an average of 8.4% of faculty and administration having responded for both “Strongly Agree” and “Strongly Disagree.” Neither School A nor C had responses for “Strongly Disagree” in any of the three global awareness statements, with School C averaging a 33.3% response for “Strongly Agree” for all three statements. Collectively, all three schools had an average response for “Strongly Agree” or “Agree” of 87.3% for developing an understanding of diversity, yet only 69.3% for promoting multiculturalism and 70.6% for rigorous academic standards.

Table 23

School Response Percentages for Global Awareness

	School A ^a				School B ^a				School C			
	SA	A	D	SD	SA	A	D	SD	SA	A	D	SD
Develop understanding of diversity	7	74	19	0	12	69	12	6	40	60	0	0
Promote multiculturalism in curriculum	3	65	32	0	6	44	44	6	40	50	10	0
Rigorous academic standards	10	68	23	0	6	38	44	13	20	70	10	0

Note: SA=Strongly Agree, A=Agree, D=Disagree, SD=Strongly Disagree; ^a Percentage totals less than 100 with inclusion of nonresponses.

The fourth essential characteristic of effective adolescent education is for educators to use multiple learning and teaching approaches (AMLE, 2010). Table 24 shows the administration and faculty perceptions when asked to indicate their opinion about the use of multiple learning and teaching approaches in each school and rate the level of implementation at their specific middle school. The administration and faculty of

each school responded at a level of 2.00 (“Important”/“Implemented”) or higher on a 4-point Likert scale for both importance and implementation. Collectively, the median for importance of multiple learning and teaching approaches was 3.00 (“Very Important”) among all three schools with the median for implementation being 2.00. The mean level for all responses was 2.71 for importance compared with 2.09 for implementation.

Table 24

Administration and Faculty Response to Multiple Learning and Teaching Approaches

	Administration				Faculty			
	Importance		Implementation		Importance		Implementation	
	M (SE)	SD	M (SE)	SD	M (SE)	SD	M (SE)	SD
School A	2.00 (-)	-	2.00 (.00)	.00	2.76 (.09)	.51	2.11 (.12)	.63
School B	3.00 (-)	-	2.00 (-)	-	2.80 (.11)	.41	2.07 (.18)	.70
School C	2.67 (.33)	.58	2.00 (.00)	.00	2.43 (.30)	.79	2.14 (.26)	.69

Note: 4-point measurement scale for Importance (3=Very Important, 2=Important, 1=Unimportant, 0=Very Unimportant); Implementation (3=Highly Implemented, 2=Implemented, 1=Limited Implementation, 0=Not Implemented).

As shown in Table 25, in which all responses for administration and faculty were combined, the percentages of response for each school were generally high and similar between all three schools with an average of 94.5% for “Very Important” and “Important” and 85.1% for “Highly Implemented” and “Implemented.” None of the three schools registered responses for the lowest levels of importance or implementation, with no responses for either “Unimportant” or “Very Unimportant” at School B.

Table 25

School Response Percentages to Use of Multiple Learning and Teaching Approaches

School	Importance				Implementation			
	VI	I	U	VU	HI	I	LI	NI
A ^a	74.2	19.4	3.2	0	22.6	61.3	12.9	0
B ^a	81.3	18.8	0	0	25	56.3	18.8	0
C	60	30	10	0	20	70	10	0

Note: Importance (VI=Very Important, I=Important, U=Unimportant, VU=Very Unimportant); Implementation (HI=Highly Implemented, I=Implemented, LI=Limited Implementation, NI=Not Implemented); ^a Percentage total less than 100 with inclusion of nonresponses.

The specific instructional practices of each school are displayed in Table 26 as each school's administration and faculty were asked to indicate the extent to which direct instruction, cooperative learning, inquiry teaching, independent study, and online instruction are used in their school. Responses were given according to a 3-point measurement scale with 1 signifying "Rarely or Never," 2 signifying "Occasionally," and 3 signifying "Regularly." Direct instruction is perceived as being used at the highest levels ("Regularly") in each school, along with cooperative learning, which are both teacher-led instructional methods. The perception of faculty for the use of student-centric instructional methods of inquiry teaching, independent study, and online instruction were on average .60 or 21% less in comparison to direct instruction and cooperative learning when comparing the mean responses of each school.

Table 26

Administration and Faculty Response to Teaching Methods or Strategies Used

School	Administration			Faculty		
	A	B	C	A	B	C
	<i>M</i> (<i>SE</i>) <i>SD</i>			<i>M</i> (<i>SE</i>) <i>SD</i>		
Direct Instruction	3.00 (.00) .00	3.00 (-) -	3.00 (.00) .00	2.83 (.07) .38	3.00 (.00) .00	3.00 (.00) .00
Cooperative Learning	3.00 (.00) .00	3.00 (-) -	3.00 (.00) .00	2.83 (.07) .38	2.60 (.13) .51	2.71 (.18) .49
Inquiry Teaching	2.50 (.50) .71	2.00 (-) -	2.67 (.33) .58	2.31 (.11) .60	2.27 (.15) .59	2.29 (.18) .49
Independent Study	2.00 (.00) .00	3.00 (-) -	2.33 (.33) .58	2.28 (.12) .65	2.53 (.13) .52	2.43 (.30) .79
Online Instruction	2.50 (.50) .71	2.00 (-) -	1.33 (.33) .58	2.21 (.10) .56	2.07 (.18) .70	1.71 (.29) .76

Note: 3-point measurement scale (3=Regularly, 2=Occasionally, 1=Rarely or Never).

As shown in Table 27, in which all responses for administration and faculty were combined, the response percentages for each school demonstrate the tendency of each school to have used direct instruction and cooperative learning to a high level in comparison to other teaching strategies. “Occasionally” in response to having used student-centric instructional methods of inquiry teaching, independent study, and online instruction averaged 58% for School A, 54.2% for School B, and 46.7% for School C as

the highest response choice of each school. This was in comparison to all three schools collectively averaging 85% for “Regularly” having used the teaching methods of direct instruction and cooperative learning.

Table 27

School Response Percentages for Teaching Methods or Strategies Used

	School A			School B			School C		
	R/N	O	RE	R/N	O	RE	R/N	O	RE
Direct Instruction	84	16	0	100	0	0	100	0	0
Cooperative Learning	84	16	0	62	37	0	80	20	0
Inquiry Teaching	39	55	6	31	62	6	40	60	0
Independent Study	35	55	10	56	44	0	50	40	10
Online Instruction	29	65	6	25	56	19	10	40	50

Note: R/N=Rarely/Never, O=Occasionally, RE=Regularly.

Characteristic four also incorporates the use of technology throughout the curriculum and the National Middle School Survey asked faculty the question, “Which of the following multi-media technologies and resources do teachers at your school incorporate into their teaching?” Table 28, in which all responses for administration and faculty were combined, displays the degree to which each school further varies learning and teaching approaches with the incorporation of various multi-media technologies. Those having the greatest differences in percentage of incorporation among all three schools were as follows: technology to provide nontraditional forms of student assessment, use of Smartboards, Flex Cams, student email, online learning environments, and personal digital assistants (tablet or iTouch/iPhone). Of 18 different multi-media

technologies surveyed at each of the three schools (54 total), 28 had a response level below 30% incorporation into teaching practices, with School C accounting for 12 of these. Including the use of televisions and DVD players, the total mean percentage of technology incorporation was higher at 47% for School A, 42% for School B, and 31% for School C.

Table 28

Percentage of Faculty Incorporating Multi-media Technologies and Resources into Teaching

School	A	B	C
Online Research/Online Projects	76	80	71
Nontraditional Forms of Student Assessment	66	80	14
Assistive/Adaptive Devices to Assist Special Needs Students	21	27	14
Computer Projection Devices	72	93	86
Digital Cameras	45	20	43
HDTV Technology	24	7	0
Scanners	48	33	43
SmartBoards	97	7	86
TV Production (Student Generated)	14	40	14
Amplified Audio System	35	27	0
Video Conferencing	7	0	0
Graphic Calculators	45	67	57
iPods	21	7	0
Flex Cam (Visual Presenter)	97	7	0
Student Email	35	87	14
Online Learning Environment	55	7	14
Cell Phone	28	33	0
Personal Digital Assistants (Tablet)	52	60	0

Note: Incorporation of television and DVD players not included.

Technology incorporation also includes surveying what types of multi-media technologies students have access to during the school day. Table 29, in which all responses for administration and faculty were combined, shows the percentage of faculty making each technology available to students at their particular school. Those

technologies having the greatest difference in percentage between the three schools were tutorial and basic skill development games, special applications for reading and math, presentation software, probes for data acquisition (temperature, mass, etc.), desktop/laptop computers, and personal digital assistants (tablets or iTouch/iPhone). As with technology incorporation, School A had the highest mean percentage of technology access for students across all categories with 48%, School B at 34%, and School C with the lowest mean percentage at 21%.

Table 29

Percentage of Faculty that Give Students Access to Types of Multi-media Technologies

School	A	B	C
Word Processing Software	86	33	71
Integrated Learning Systems	21	7	0
Spreadsheets	55	20	29
Games (Tutorial and Basic Skills Development)	83	20	43
Special Applications for Reading and Math	48	27	0
Internet Access	93	67	57
Presentation Software	83	47	43
CD-ROMS/Encyclopedias	24	27	0
Graphing Calculators	66	73	29
Probes for Data Acquisition	14	87	0
Desktop Publishing and Design Software	38	13	43
Webcams	10	13	0
Desktop/Laptop Computers	90	40	57
Video/Data Projection	35	27	0
Video Editing Software	38	20	0
Visual Presenters	24	13	14
Personal Digital Assistants (Tablet)	48	67	0
Social Networking	7	13	0

The fifth essential characteristic of effective adolescent education is that varied and ongoing assessments advance learning as well as measure it (AMLE, 2010). Table

30, in which all responses for administration and faculty were combined, displays perceptions when asked to indicate their opinion about the degree of importance of having assessment and evaluation programs that promote quality learning and rate the level of implementation at their specific middle school. The percentage of response choices for each school continued to demonstrate the trend of each school in perceiving middle school concepts to be implemented at a lower level in comparison to their perceived importance. Each school had similar response percentages for importance with the exception of School C having a response of 30% for “Unimportant” and “Very Unimportant” in comparison to School A’s response of 3.2% and School B’s response of 0% for these same choices. Implementation levels were similar for Schools A and C as both had a response of 90% for “Highly Implemented” and “Implemented,” in comparison to School B with a lower response of 68.8%.

Table 30

School Response Percentages to Assessment Programs that Promote Quality Learning

School	Importance				Implementation			
	VI	I	U	VU	HI	I	LI	NI
A ^a	77.4	19.4	3.2	0	22.6	67.7	6.5	0
B ^a	68.8	31.3	0	0	25	43.8	25	0
C	50	20	10	20	30	60	10	0

Note: Importance (VI=Very Important, I=Important, U=Unimportant, VU=Very Unimportant); Implementation (HI=Highly Implemented, I=Implemented, LI=Limited Implementation, NI=Not Implemented); ^a Percentage total less than 100 with inclusion of nonresponses.

As shown in Table 31, the faculty of School C responded with levels below 2.00 for importance and implementation in comparison to the administration that responded at

2.67 for both categories on a 4-point Likert scale. A standard deviation of 1.38 and .90 for each respective category demonstrate high variation among the responses given for faculty as the mode and median of all three schools combined was 2.00 (“Implemented”). The administration and faculty of Schools A and B both responded with mean levels at or above 2.00 (“Important” and “Implemented”) and lower standard deviations.

Table 31

Administration and Faculty Response to Assessment and Evaluation Programs that Promote Quality Learning

	Administration				Faculty			
	Importance		Implementation		Importance		Implementation	
	M (SE)	SD	M (SE)	SD	M (SE)	SD	M (SE)	SD
School A	3.00 (.00)	.00	2.00 (.00)	.00	2.72 (.10)	.53	2.18 (.10)	.55
School B	3.00 (-)	-	-	-	2.67 (.13)	.49	2.00 (.20)	.76
School C	2.67 (.33)	.58	2.67 (.33)	.58	1.71 (.52)	1.38	1.86 (.34)	.90

Note: 4-point measurement scale for Importance (3=Very Important, 2=Important, 1=Unimportant, 0=Very Unimportant); Implementation (3=Highly Implemented, 2=Implemented, 1=Limited Implementation, 0=Not Implemented).

Related to characteristic five as part of the faculty’s ability to measure and advance learning is the percentage of teachers making remedial opportunities available to middle school students. Given a list of commonly used remedial options, faculty members were asked on the National Middle School Survey to indicate all options they perceive were available to students at their school. Table 32 displays the perceptions of

faculty in providing various remediation opportunities with only School B having the majority of faculty recognizing that a pull-out program for English/language arts and mathematics was in place while all three schools had the majority of teachers arranging for tutoring at some point during a school day. Similar to technologies incorporated and accessed by students, School A had a higher collective mean of 46% for providing remedial arrangements as Schools B and C had 33% and 24%, respectively. There were a limited number of categories with similar percentages of response concerning administrative perceptions of remedial opportunities and these being primarily limited to arrangements not provided. Only School A had agreement between the perceptions of administration and faculty in the category of extra work or homework assigned and before- or after-school tutoring.

Table 32

Faculty and Administration Responses on the Percentage of Teachers that Provide Remedial Arrangements to Students

School	Administration			Faculty		
	A	B	C	A	B	C
No Remedial Arrangements Provided	0	0	0	14	0	0
Extra Work or Homework Assigned by Teachers	67	50	100	71	24	20
Pull Out Program in English/Language Arts	67	0	100	14	17	60
Pull Out Program in Mathematics	33	0	100	14	17	67
Extra Period of Time Instead of Elective or Exploratory Course	100	50	100	57	38	60
Reduced Time Allocated to Advisory Program	0	0	100	14	7	0
Tutoring During the School Day	100	50	100	57	62	60
Before or After-school Classes or Tutoring	100	100	100	100	76	60
Saturday Classes	0	0	0	100	0	0
Summer School	33	0	100	14	0	0

Under the grouping of Leadership and Organization Characteristics, characteristic six of the middle school concept is a shared vision developed by all stakeholders that guides every decision (AMLE, 2010). Table 33 shows the administration and faculty perceptions when asked to indicate their opinion about the degree of importance of having a shared vision of mission and goals and the rate of implementation at their specific middle school. Each school responded with a level of importance and implementation of at least 2.00 (“Important” and “Implemented”) on a 4-point Likert scale, but the standard deviation of the faculty of School C being 1.07 shows a wider variance of responses against a mean of 2.14. The median for all three schools combined for importance of a shared vision was 3.00 (“Very Important”), while the median for implementation was 2.00.

Table 33

Administration and Faculty Response to Shared Vision of Mission and Goals

	Administration				Faculty			
	Importance		Implementation		Importance		Implementation	
	M (SE)	SD	M (SE)	SD	M (SE)	SD	M (SE)	SD
School A	3.00 (-)	-	2.00 (.00)	.00	2.79 (.08)	.41	2.25 (.11)	.59
School B	3.00 (-)	-	3.00 (-)	-	2.73 (.12)	.46	2.27 (.15)	.59
School C	3.00 (.00)	.00	2.67 (.33)	.58	2.57 (.30)	.79	2.14 (.40)	1.07

Note: 4-point measurement scale for Importance (3=Very Important, 2=Important, 1=Unimportant, 0=Very Unimportant); Implementation (3=Highly Implemented, 2=Implemented, 1=Limited Implementation, 0=Not Implemented).

As shown in Table 34, in which all responses for administration and faculty were combined, percentages were similar among all three schools for perceptions of the importance of a shared vision and mission. In response to “Very Important” and “Important,” School A had a response of 96.8%, School B had a response of 100%, and School C had a response of 90%. Perceptions of implementation were equally high at 90.3% for School A, 93.8% for School B, and 90% for School C, demonstrating a high level of unity among faculty and administration in defining the vision and mission of each middle school program.

Table 34

School Response Percentages to Shared Vision of Mission and Goals

School	Importance				Implementation			
	VI	I	U	VU	HI	I	LI	NI
A ^a	77.4	19.4	0	0	29	61.3	6.5	0
B ^a	75	25	0	0	37.5	56.3	6.3	0
C	80	10	10	0	50	40	10	0

Note: Importance (VI=Very Important, I=Important, U=Unimportant, VU=Very Unimportant); Implementation (HI=Highly Implemented, I=Implemented, LI=Limited Implementation, NI=Not Implemented); ^a Percentage total less than 100 with inclusion of nonresponses.

Characteristic seven of the middle school concept is that leaders are committed to and knowledgeable about this particular age group, educational research, and best practices of adolescent education (AMLE, 2010). The National Middle School Survey does not include direct measurement of this characteristic apart from measuring the importance and implementation of evidence-based decision making by school leadership, which is recognized as a universal best practice in education (Kadel, 2010). Table 35

shows the response of faculty when asked to indicate their opinion about the degree of importance of having evidence-based decision making and rate the level of implementation at their specific middle school. Only faculty responses are reported as administrators were not asked to rate their own performance. For Schools B and C, the mean implementation levels were below 2.00 (“Limited Implementation”) despite having mean importance levels at 2.00 and above on a 4-point Likert scale.

Table 35

Faculty Response for Evidence-based Decision Making

	Importance		Implementation	
	<i>M (SE)</i>	<i>SD</i>	<i>M (SE)</i>	<i>SD</i>
School A	2.41 (.11)	.57	2.00 (.12)	.62
School B	2.53 (.13)	.52	1.73 (.21)	.80
School C	2.00 (.22)	.58	1.86 (.34)	.90

Note: 4-point measurement scale for Importance (3=Very Important, 2=Important, 1=Unimportant, 0=Very Unimportant); Implementation (3=Highly Implemented, 2=Implemented, 1=Limited Implementation, 0=Not Implemented).

As shown in Table 36, in which all responses for administration and faculty were combined, the percentages of response for each selected item demonstrates a generally lower level of perceived implementation compared with perceived levels of importance school-wide. All three schools had high levels for the perception of importance with an average of 95.6% among all three schools for “Very Important” and “Important.” Comparatively, School A had a response of 77.4% for “Highly Implemented” and “Implemented” along with 68.8% for School B and 80% for School C. In comparison to previously presented middle school characteristics, more administration and faculty

tended to answer “Important” and “Limited Implementation,” demonstrating a lower perception of importance and implementation across all three schools.

Table 36

School Response Percentages to Evidence-Based Decision Making

School	Importance				Implementation			
	VI	I	U	VU	HI	I	LI	NI
A ^a	48.4	48.4	3.2	0	16.1	61.3	16.1	0
B ^a	56.2	43.8	0	0	12.5	56.3	25	6.3
C	20	70	10	0	30	50	10	10

Note: Importance (VI=Very Important, I=Important, U=Unimportant, VU=Very Unimportant); Implementation (HI=Highly Implemented, I=Implemented, LI=Limited Implementation, NI=Not Implemented); ^a Percentage total less than 100 with inclusion of nonresponses.

Characteristic eight of the middle school concept in which leaders demonstrate courage and collaboration is not measured on the National Middle School Survey, but qualitative data were gathered through interviews of the faculty of each school and were previously presented in response to Evaluation Question 3.

The ninth essential characteristic of effective adolescent education is ongoing professional development that reflects best educational practices (AMLE, 2010).

Provided with a list of eight professional development resources, faculty members were asked, “Which of the following resources for professional development are available to teachers at your school?” Faculty perceptions of the availability of resources at each school are presented in Table 37, with School A having had an average response of 67% for all resources compared with 44% for School B and 36% for School C. The largest disparities exist in the resources of technology to collaborate with educators online,

online courses/workshops, technology to enhance productivity, and personal digital assistants (tablets or iTouch/iPhone).

Table 37

Faculty Response Percentages of Professional Development Resources Available to Teachers

School	A	B	C
Technology to Collaborate with Other Educators Online	59	13	43
Online Courses/Workshops	69	20	14
Professional Electronic Portfolios	17	0	0
Technology to Enhance Productivity	79	73	29
Personal Digital Assistants (Tablet)	69	60	0
Online Gradebooks	97	80	100
Desktop/Laptop Computers	97	87	86
Teacher Web Pages	52	20	14

Related to this are statements from the National Middle School Survey that asked administration and faculty to respond on a 4-point Likert scale concerning adequate training and support provided in the use of emerging multi-media technologies. The perception of administration and faculty in technological professional development are presented in Table 38 and additionally including the last statement measuring global education awareness that states teachers are sufficiently supported and trained in 21st century and global content. All mean faculty responses were below 3.00 (“Agree”) for the three categories pertaining to adequate professional development, support, and training in multi-media technologies and below 3.00 for support and training in 21st century and global content.

Table 38

Administration and Faculty Response to Professional Development, Support, and Training in Technology

School	Administration			Faculty		
	A	B	C	A	B	C
	M (SE) SD			M (SE) SD		
Adequate Professional Development in the Use of New Technologies	2.50 (.50) .71	3.00 (-) -	2.67 (.33) .58	2.72 (.12) .65	2.40 (.19) .74	2.57 (.30) .79
Adequate Technical Support is Provided	2.00 (.00) .00	2.00 (-) -	2.33 (.33) .58	2.90 (.13) .67	2.60 (.19) .74	2.57 (.43) 1.13
Adequate Multi-Media Training	2.50 (.50) .71	3.00 (-) -	2.33 (.33) .58	2.59 (.12) .63	2.40 (.21) .83	2.43 (.37) .98
Sufficient Support and Training in 21st Century and Global Content	2.50 (.50) .71	2.00 (-) -	2.33 (.33) .58	2.62 (.12) .62	2.33 (.19) .72	2.14 (.26) .69

Note: 4-point Likert scale (4=Strongly Agree, 3=Agree, 2=Disagree, 1=Strongly Disagree).

Shown in Table 39, in which all responses for administration and faculty were combined, the response percentages varied for each school with School A averaging 41.2% for responses to “Strongly Agree” and “Agree” to all four statements, with Schools B and C both averaging 30%. Average responses to “Disagree” and “Strongly Disagree” were both 36% for Schools B and C, yet only 25% for School A.

Table 39

School Response Percentages to Professional Development, Support, and Training in Technology

	School A ^a				School B ^a				School C			
	SA	A	D	SD	SA	A	D	SD	SA	A	D	SD
Training in New Technologies	6	61	29	3	6	37	50	6	0	70	20	10
Technical Support Provided	16	52	32	0	6	50	37	6	20	20	50	10
Multi-Media Training	3	55	39	3	6	44	37	12	10	30	50	10
Training in Global Content	6	48	45	0	6	25	62	6	0	30	60	10

Note: SA=Strongly Agree, A=Agree, D=Disagree, SD=Strongly Disagree; ^a Percentage total less than 100 with inclusion of nonresponses.

The final aspect of the middle school concept in the group of Leadership and Organization characteristics is that organizational structures foster purposeful learning and meaningful relationships (AMLE, 2010). Table 40 displays the administration and faculty perceptions when asked to indicate their opinion about the degree of importance in having trusting and respective relationships among administrators, teachers, students and parents and rate the level of implementation at their specific middle school. All schools responded at a level of 2.00 (“Important” and Implemented”) or higher for both importance and implementation on a 4-point Likert scale. The mean for all three schools combined showed a higher level of perception for importance at 2.87 compared with perceived implementation at 2.32. In addition, the standard deviation of responses for the importance of trusting relationships was .33 compared with a standard deviation of .72 for implementation for all three schools demonstrating a wider variation of responses

compared to the mean.

Table 40

Administration and Faculty Response to Trusting and Respective Relationships among Administrators, Teachers, Students and Parents

	Administration				Faculty			
	Importance		Implementation		Importance		Implementation	
	M (SE)	SD	M (SE)	SD	M (SE)	SD	M (SE)	SD
School A	3.00 (.00)	.00	2.00 (.00)	.00	2.93 (.05)	.26	2.39 (.12)	.63
School B	3.00 (-)	-	3.00 (-)	-	2.80 (.11)	.41	2.07 (.23)	.88
School C	3.00 (.00)	.00	2.67 (.33)	.58	2.71 (.18)	.49	2.43 (.30)	.79

Note: 4-point measurement scale for Importance (3=Very Important, 2=Important, 1=Unimportant, 0=Very Unimportant); Implementation (3=Highly Implemented, 2=Implemented, 1=Limited Implementation, 0=Not Implemented).

Response percentages for importance were similar among all three schools, but differences were evident when comparing perceived levels of implementation in each school. According to Table 41, in which all responses for administration and faculty were combined, School B had 31.3% of responses for “Limited Implementation” despite the highest response being “Highly Implemented” at 43.8%. In comparison, School A had 90.4% and School C had 90% of responses at “Implemented” or “Highly Implemented” as opposed to 68.8% for School B.

Table 41

School Response Percentages to Trusting Relationships among Administrators, Teachers, Students and Parents

School	Importance				Implementation			
	VI	I	U	VU	HI	I	LI	NI
A ^a	93.5	6.5	0	0	41.9	48.4	6.5	0
B ^a	81.3	18.8	0	0	43.8	25	31.3	0
C	80	20	0	0	60	30	10	0

Note: Importance (VI=Very Important, I=Important, U=Unimportant, VU=Very Unimportant); Implementation (HI=Highly Implemented, I=Implemented, LI=Limited Implementation, NI=Not Implemented); ^a Percentage total less than 100 with inclusion of nonresponses.

In addition, Table 42 shows the perceptions of administration and faculty when asked to indicate their opinion about the degree of importance of having flexible scheduling and grouping and rate the level of implementation at their specific middle school. In comparison to other essential characteristics, the perception levels of administration and faculty were substantially lower as all three schools, with the exception of the administration of School B, responding at an implementation level below 2.00 (“Implemented”) and the cumulative mean among all three schools being 1.11 or slightly above “Limited Implementation” on a 4-point Likert scale. The administration of each school was asked to identify the number of minutes each of the following subjects was taught each day: language arts, mathematics, science, and social studies. All three schools responded with 45-60 minutes for all subjects indicating a lack of flexible scheduling in facilitating varied curriculum and teaching strategies.

Table 42

Administration and Faculty Response to Flexible Scheduling and Grouping

	Administration				Faculty			
	Importance		Implementation		Importance		Implementation	
	M (SE)	SD	M (SE)	SD	M (SE)	SD	M (SE)	SD
School A	2.00 (1.00)	1.41	0.50 (.50)	.71	2.14 (.14)	.74	1.00 (.17)	.85
School B	2.00 (-)	-	2.00 (-)	-	2.33 (.16)	.62	1.13 (.17)	.64
School C	1.67 (.88)	1.53	1.67 (.33)	.58	2.00 (.31)	.82	1.29 (.36)	.95

Note: 4-point measurement scale for Importance (3=Very Important, 2=Important, 1=Unimportant, 0=Very Unimportant); Implementation (3=Highly Implemented, 2=Implemented, 1=Limited Implementation, 0=Not Implemented).

More revealing are the percentages for each response choice regarding flexible scheduling and grouping. As seen in Table 43, in which all responses for administration and faculty were combined, each school's highest response was "Important" at an average of 34.3% with no faculty or administration having responded at the perception level of "Highly Implemented." The highest response for implementation was "Not Implemented" for School A at 32.3% and "Limited Implementation" for School B at 56.3%. The highest response for School C was "Implemented" at 60%, but a combined 40% of faculty and administration responded either "Limited Implementation" or "Not Implemented" at this same school.

Table 43

School Response Percentages to Flexible Scheduling and Grouping

School	Importance				Implementation			
	VI	I	U	VU	HI	I	LI	NI
A ^a	35.5	41.9	22.6	0	0	29	29	32.3
B ^a	37.5	56.3	6.3	0	0	12.5	56.3	31.3
C	30	40	20	10	0	60	20	20

Note: Importance (VI=Very Important, I=Important, U=Unimportant, VU=Very Unimportant); Implementation (HI=Highly Implemented, I=Implemented, LI=Limited Implementation, NI=Not Implemented); ^a Percentage total less than 100 with inclusion of nonresponses.

The perception of interdisciplinary team organization among administration and faculty is presented in Table 44. The middle school concept emphasizes fundamental skills taught in a context where they are applied rather than as isolated lessons, therefore an interdisciplinary curriculum structure is a foundational aspect of the middle school concept (AMLE, 2010). When asked to indicate their opinion about the degree of importance of having interdisciplinary team organization and rate the level of implementation at their respective middle school, with the exception of School A, a greater disparity exists for the importance and implementation of interdisciplinary team organization compared with that of other middle school concepts. The faculty of Schools B and C have a mean level of importance of at least 2.00 (“Important”) but a mean level of implementation slightly below 1.00 (“Limited Implementation”) on a 4-point Likert scale. For example, when examining all responses from School B, the mean level of importance was 2.25 with a standard deviation of .58, compared with a mean level of implementation of 0.81 and a standard deviation of .66. This demonstrates that both the

administration and faculty consider interdisciplinary team organization important but implement it at a very low level with the variance of responses being similar for both categories. The same was evident for School C as the level for importance for all responses was 2.00 and the level of implementation was .80, with standard deviations of .67 and .79, respectively.

Table 44

Administration and Faculty Response to Interdisciplinary Team Organization

	Administration				Faculty			
	Importance		Implementation		Importance		Implementation	
	M (SE)	SD	M (SE)	SD	M (SE)	SD	M (SE)	SD
School A	2.50 (.50)	.71	2.50 (.50)	.71	2.45 (.09)	.51	1.96 (.15)	.79
School B	1.00 (-)	-	.00 (-)	-	2.33 (.13)	.49	0.87 (.17)	.64
School C	2.00 (.00)	.00	1.33 (.33)	.58	2.00 (.31)	.82	0.57 (.30)	.79

Note: 4-point measurement scale for Importance (3=Very Important, 2=Important, 1=Unimportant, 0=Very Unimportant); Implementation (3=Highly Implemented, 2=Implemented, 1=Limited Implementation, 0=Not Implemented).

As presented in Table 45, in which all responses for administration and faculty were combined, the percentages for each choice in the perceived importance and implementation of interdisciplinary team organization showed large disparities between the three schools. Each school's highest response for perceived importance was "Important" at an average of 59.1%, yet each school had a different level of perception in implementing interdisciplinary team organization. School A had a significantly lower

response for “Limited Implementation” and “Not Implemented” at 22.6%, compared with School B at 87.6% and School C at 80%, demonstrating that a majority of faculty and administrators of these two schools do not perceive interdisciplinary team organization to be a consistent practice of their middle school programs.

Table 45

School Response Percentages to Interdisciplinary Team Organization

School	Importance				Implementation			
	VI	I	U	VU	HI	I	LI	NI
A ^a	45.2	54.8	0	0	25.8	48.4	19.4	3.2
B ^a	31.3	62.5	6.3	0	0	12.5	56.3	31.3
C	20	60	20	0	0	20	40	40

Note: Importance (VI=Very Important, I=Important, U=Unimportant, VU=Very Unimportant); Implementation (HI=Highly Implemented, I=Implemented, LI=Limited Implementation, NI=Not Implemented); ^a Percentage total less than 100 with inclusion of nonresponses.

Further data were collected from the National Middle School Survey related to this form of organization and instruction as faculty members were asked if their school was organized into interdisciplinary teams and to indicate how many individual and team common planning periods teachers on teams typically have at their respective school. As shown in Table 46 in regards to the first question, 83% of School A’s faculty replied having interdisciplinary teams while School B responded with 47% and School C with 29%, which presents conflicting results with Tables 44 and 45. The response of the faculty of School B from Table 42 of a mean implementation level of 0.87 could be partly explained by the existence of interdisciplinary teams but not a consistency of common planning time. This is demonstrated in Table 46 which shows the perception of

the number of individual and team common planning periods that teachers on teams typically have in a given week. School B responded with a mean level below 1.00 (1 day per week) despite having nearly half of the teachers affirming interdisciplinary team organization and its importance. School A's faculty responded with a mean of over 4 common planning periods a week but with a standard deviation of 3.11 which demonstrates a high amount of variance from the mean response.

Table 46

Percentage of Faculty Affirming Interdisciplinary Team Organization and Number of Common Planning Periods Teachers on Teams Have Per Week

School	Interdisciplinary Teams	Faculty	
		Common Planning Periods Per Week	
		M (SE)	SD
A	83%	4.56 (.60)	3.11
B	47%	0.86 (.14)	.38
C	29%	0.14 (.14)	.38

Note: Number of common planning periods per week on an 11 point measurement scale (0-10=number per week).

When asked to choose the statement that best describes their school's operating policy regarding instructional grouping, faculty and administration had varying perceptions of the use of ability grouping or tracking at their middle schools. As displayed in Table 47, in which all responses for administration and faculty were combined, most perceived ability grouping or tracking to be the operating policy of their particular middle school. The majority of respondents indicated that ability grouping was used in all three schools for only certain subjects either at all grade levels or only certain

grade levels.

Table 47

School Response Percentages to Operating Policy Regarding Instructional Grouping

School	A	B	C
Grouping Random (No Tracking)	6.7	26.7	10
Ability Grouping (Tracking) Used at All Grade Levels in All Basic Subjects	6.7	6.7	0
Ability Grouping (Tracking) Used at All Grade Levels Restricted to Certain Subjects	63.3	13.3	60
Ability Grouping (Tracking) Used at Certain Grade Levels in All Basic Subject Areas	0	0	0
Ability Grouping (Tracking) Used at Certain Grades Levels Restricted to Certain Subjects	23.3	53.3	30

Specifically, the National Middle School Survey asked respondents to indicate which subject areas they perceive using ability grouping (tracking) at their school, as shown in Table 48. The majority of all administration and faculty responded that their school used ability grouping in the subject area of mathematics, with a cumulative mean of 89%.

Table 48

School Response Percentages Affirming Subject Areas Using Ability Grouping

School	A	B	C
Mathematics	90.3	62.5	90
Language Arts	9.7	18.8	20
Reading	6.5	12.5	10
Science	6.5	6.3	30
Social Studies	3.2	6.3	20
None of these Subjects	0	25	10

The final grouping of essential characteristics of the middle school concept are titled Culture and Community Characteristics and begin with characteristic 11 in which the school environment is inviting, safe, inclusive, and supportive of all (AMLE, 2010). Table 49 shows the administration and faculty perceptions when asked to indicate their opinion about the degree of importance in having inviting, supportive, and safe environments in their respective middle school and rate the level of implementation. All three schools responded at the highest level of importance with only the faculty of School A at a level below 3.00 (“Very Important”) at 2.93 on a 4-point Likert scale. Only the administration of School B responded with an implementation level at 3.00, yet all other administration and faculty responded with implementation levels above 2.00 (“Implemented”). The median of all three schools combined for both importance and implementation were 3.00 with standard deviations of .19 and .55, respectively.

Table 49

Administration and Faculty Response to Inviting, Supportive, and Safe Environments

	Administration				Faculty			
	Importance		Implementation		Importance		Implementation	
	M (SE)	SD	M (SE)	SD	M (SE)	SD	M (SE)	SD
School A	3.00 (.00)	.00	2.50 (.50)	.71	2.93 (.05)	.26	2.79 (.08)	.42
School B	3.00 (-)	-	3.00 (-)	-	3.00 (.00)	.00	2.53 (.13)	.52
School C	3.00 (.00)	.00	2.67 (.33)	.58	3.00 (.00)	.00	2.29 (.36)	.95

Note: 4-point measurement scale for Importance (3=Very Important, 2=Important, 1=Unimportant, 0=Very Unimportant); Implementation (3=Highly Implemented, 2=Implemented, 1=Limited Implementation, 0=Not Implemented).

As shown in Table 50, in which all responses of administration and faculty were combined, the percentages for each choice demonstrated a high level of importance on inviting, support, and safe environments. All responses of each school were either in the “Very Important” or “Important” categories, yet with a highest response average of 63.5% for “Highly Implemented” and School C having a response of 20% for “Limited Implementation” which demonstrates a substantial inconsistency of implementing what is unanimously perceived to be of the highest importance among all characteristics of the middle school concept.

Table 50

School Response Percentages to Inviting, Supportive, and Safe Environments

School	Importance				Implementation			
	VI	I	U	VU	HI	I	LI	NI
A ^a	93.5	6.5	0	0	74.2	22.6	0	0
B	100	0	0	0	56.3	43.7	0	0
C	100	0	0	0	60	20	20	0

Note: Importance (VI=Very Important, I=Important, U=Unimportant, VU=Very Unimportant); Implementation (HI=Highly Implemented, I=Implemented, LI=Limited Implementation, NI=Not Implemented); ^a Percentage total less than 100 with inclusion of nonresponses.

The twelfth essential characteristic of effective adolescent education is that every student's academic and personal development is guided by an adult advocate or what is referred to as an "advisor-advisee program" (AMLE, 2010). Administration and faculty were asked several questions detailing the advisor-advisee program of their individual school including whether a program exists, how frequently advisor groups meet, and for how many minutes advisory groups meet per session. As seen in Table 51, in which all responses for administration and faculty were combined, the percentage that affirmed having an advisor-advisee program in their school was 97% for School A and 100% for School C, yet 25% for School B.

Table 51

School Response Percentage to Advisory Program

	School A	School B	School C
Yes	96.8	25	90
No	3.2	75	10

As displayed in Table 52 concerning the frequency of advisory meetings and the number of minutes per advisory session, the administration of School B responded with a mean of .00 (“Other”) for frequency of advisory group meetings, which was further described as once per semester. The faculty of this same school responded with a mean of 1.00 or 1 day per week and approximately 21-25 minutes per meeting but with a high standard deviation of 2.99. Schools A and C both had advisor-advisee programs that met weekly with School A having had advisory groups meeting more than four times per week for approximately 10 minutes per session, while advisory groups at School C met less frequently but for a larger amount of time. There was a greater variation in comparison to the means for School C in regard to minutes per meeting as the standard deviations were 1.41 for administration and 1.62 for faculty.

Table 52

Administration and Faculty Response for Frequency of and Minutes per Advisor Group Meeting

School	Administration			Faculty		
	A	B	C	A	B	C
	M (SE) SD			M (SE) SD		
Frequency of Advisory Group Meeting	3.50 (.50) .71	.00 (-) -	1.00 (.00) .00	3.89 (.15) .80	1.00 (.00) .00	0.57 (.20) .53
Minutes per Advisor Group Meeting	1.50 (.50) .71	8.00 (-) -	7.00 (1.00) 1.41	1.21 (.08) .42	4.25 (1.49) 2.99	5.43 (.61) 1.62

Note: 6 point measurement scale for Frequency of Advisory Group Meetings (5=Daily, 4=4 days per week, 3=3 days per week, 2=2 days per week, 1=1 day per week, 0=Other); 8 point measurement scale for Minutes per Advisor Group Meeting (8=More than 40 minutes, 7=36-40 minutes, 6=31-35 minutes, 5=26-30 minutes, 4=21-25 minutes, 3=16-20 minutes, 2=11-15 minutes, 1=1-10 minutes).

The administration and faculty perceptions when asked to indicate their opinion about the degree of importance of having an advisory program and rate the level of implementation at their middle school is displayed in Table 53. Consistent with Table 52, the administration of School B responded with an implementation level at 1.00 (“Limited Implementation”) on a 4-point Likert scale and faculty responded at a level of 1.07, despite an importance level at 2.00 (“Important”) and above for each. The administration of Schools A and C both responded with perception levels above 2.00 for both importance and implementation and the faculty of both schools responded with importance levels below 2.00.

Table 53

Administration and Faculty Response to Advisory Program

	Administration				Faculty			
	Importance		Implementation		Importance		Implementation	
	M (SE)	SD	M (SE)	SD	M (SE)	SD	M (SE)	SD
School A	2.50 (.50)	.71	2.00 (.00)	.00	1.86 (.19)	.64	1.93 (.13)	.66
School B	2.00 (-)	-	1.00 (-)	-	2.21 (.11)	.43	1.07 (.15)	.59
School C	2.67 (.33)	.58	2.33 (.67)	1.15	1.86 (.40)	1.07	2.14 (.34)	.90

Note: 4-point measurement scale for Importance (3=Very Important, 2=Important, 1=Unimportant, 0=Very Unimportant); Implementation (3=Highly Implemented, 2=Implemented, 1=Limited Implementation, 0=Not Implemented).

As seen in Table 54, in which all responses for administration and faculty were combined, the highest response percentages for the importance and implementation of advisory programs in each school was “Important” for School A at 58.1% and 75% for School B, yet 40% for “Very Important” at School C. In response to both “Very Important” and “Important,” School A had 74.2% of responses and 80.6% of responses for “Highly Implemented” and “Implemented.” For these same response choices, School B had 93.8%, yet only 18.8% concerning implementation at either level. School C had 80% for importance and 70% for implementation at either of these top two response choices.

Table 54

School Response Percentages to Advisory Programs

School	Importance				Implementation			
	VI	I	U	VU	HI	I	LI	NI
A ^a	16.1	58.1	25.8	0	12.9	67.7	12.9	3.2
B ^a	18.8	75	0	0	0	18.8	68.8	12.5
C	40	40	10	10	50	20	30	0

Note: Importance (VI=Very Important, I=Important, U=Unimportant, VU=Very Unimportant); Implementation (HI=Highly Implemented, I=Implemented, LI=Limited Implementation, NI=Not Implemented); ^a Percentage total less than 100 with inclusion of nonresponses.

Characteristic 13 of the middle school concept in which comprehensive guidance and support services meet the needs of young adolescents was not measured on the National Middle School Survey, but qualitative data were gathered through interviews of the administration and faculty of each middle school in accordance with administrative and faculty interview protocols previously referenced in answering Evaluation Questions 2 and 3. The administration and faculty were individually asked to describe how current guidance and support services meet the developmental needs of your middle school students.

School A. The faculty of School A stated that providing academic support services and guidance counseling has been the most positive change of the middle school program in comparison to previous years. Faculty unanimously agreed that an attempt is being made to create awareness of student needs with formalized processes and designated personnel to track and respond to student academic and emotional needs quickly and appropriately. As stated by a faculty member, “I feel like we work very

closely with our guidance and support services, we meet weekly with our guidance counselor . . . it forces you to recognize those children, which I think is amazing.”

Teachers described student support services as readily accessible and working in conjunction with teachers by reinforcing the classroom content and required weekly meetings. The perception of teachers is that the communication with students and parents has been strengthened and teachers perceive having greater resources to meet adolescent needs in the context of their own instructional strategies as the support offered and received by academic support and guidance counseling services is immediate and consistent across the middle school program.

The administration of School A stated that there has been an intentional effort to increase the awareness and ability of teachers to meet the academic and emotional needs of students with the placing of academic support and guidance counseling services at the forefront of middle school programming and in administrative capacities. According to lead administrators, support services were previously more isolated and insular but now have a clearly defined partnership with middle school faculty in advocating for student needs. As described by an administrator, “Kids really enjoy knowing that there is someone on campus who can advocate for them when they can’t . . . give them tools that they see other kids using and have.” With formal processes put in place, each support specialist has better knowledge of what qualifying students are experiencing day-to-day in their classes and core subject faculty therefore has developed greater awareness of the varied needs of students as a result of a closer relationship with student support services. Administration repeatedly emphasized throughout interviews the need to daily assess and advocate for the needs of all adolescents in their middle school program by using a tiered system that encompasses all students.

School B. Concerning School B, the middle school faculty stated that the program has improved in comparison to past years but remains encumbered by the need to mainly modify and administer tests and therefore neglected the teaching of skills necessary to more independently succeed in core subject classrooms. Availability of academic support and guidance counseling services is viewed by teachers as acceptable and awareness of administration to increase program capabilities beyond being simply a reporting system is increasing. Teachers stated that in the past there was confusion on a formal process to follow in identifying and accommodating student needs, but students who are now in the academic support service program are having needs met more effectively and working well with teachers to communicate necessary accommodations. As a felt need for next school year, various teachers stated that they would like to see the emotional needs of students formally incorporated into guidance counseling services of the middle school beyond the more informal processes currently being practiced. As stated by a faculty member, “It doesn’t exist, really . . . the way things are set up right now the high school has lots set up for them, but the middle school not so much so.” The administration stated that with the hiring of guidance counseling personnel this year, they will seek to expand the program further next year and that recent changes to support services have helped faculty and administration advocate more effectively for adolescent needs.

School C. The faculty of School C recognized a student support program being in place with the recent hiring of designated personnel but considers this insufficient in meeting more serious needs beyond simple accommodations common to many adolescents. As described by a faculty member, “At this point we’re really only able to meet very basic accommodation needs . . . as far as students with, you know, greater

needs we don't really have the staffing at this point or people who have been trained in that." Teachers indicated meeting the needs of students more informally and independent of support personnel due to the number of students with needs and the unavailability of specialists. Faculty stated having formal collective meetings concerning support programming and documented plans are being followed to accommodate those students qualifying for academic support services. According to faculty, the middle school lacks formal procedures to more quickly identify students in need of support but is dependent upon parents and teachers initiating the process of receiving support mainly as a result of individually perceived needs of students.

Essential characteristic 14 of effective adolescent education is health and wellness are supported in curricula, school-wide programs, and related policies (AMLE, 2010). Table 55 shows the perceptions of administration and faculty when asked to indicate their opinion about the degree of importance of having school-wide efforts and policies that foster health, wellness, and safety and rate the level of implementation at their specific middle school. The collective median for importance in all three schools was 3.00 ("Very Important") compared with a collective median for implementation of 2.00 ("Implemented") on a 4-point Likert scale. With a lower average level of implementation compared with importance, the standard deviations for all three schools combined were .60 for importance and .79 for implementation perception levels. The administration and faculty of School C had higher standard deviations for implementation with 1.05 and 1.15, respectively. The faculty of School B were the only respondents to have a mean level below 2.00 ("Implemented") at 1.93, all other respondents responded at a level of 2.00 and above.

Table 55

Administration and Faculty Response to School-Wide Efforts and Policies that Foster Health, Wellness, and Safety

	Administration				Faculty			
	Importance		Implementation		Importance		Implementation	
	M (SE)	SD	M (SE)	SD	M (SE)	SD	M (SE)	SD
School A	2.50 (.50)	.71	2.00 (.00)	.00	2.67 (.10)	.56	2.18 (.14)	.72
School B	3.00 (-)	-	3.00 (-)	-	2.60 (.16)	.63	1.93 (.21)	.80
School C	2.33 (.33)	.58	2.00 (.58)	1.05	2.29 (.29)	.76	2.00 (.44)	1.15

Note: 4-point measurement scale for Importance (3=Very Important, 2=Important, 1=Unimportant, 0=Very Unimportant); Implementation (3=Highly Implemented, 2=Implemented, 1=Limited Implementation, 0=Not Implemented).

Included with characteristic 14 is the availability of intramural and/or interscholastic athletic activities. When asked to indicate the nature of school-sponsored sports programs at each school, administrators from all three schools indicated having interscholastic athletics, with only a single administrator from both Schools B and C indicating having an intramural activities program in addition to an interscholastic program for their middle school students.

As demonstrated in Table 56, in which all responses for administration and faculty were combined, each school had a high level of response to “Very Important” and “Important” concerning school-wide efforts and policies that foster health, wellness, and safety at an average of 93.5%. In comparison to importance, the perceptions of

implementation at each school were lower as School A had 80.7% for “Highly Implemented” and “Implemented,” while School B had 68.8% and School C had 70%. In addition, School C was the only school to have responses for “Not Implemented” (10%), demonstrating wider variance of response.

Table 56

School Response Percentages to School-Wide Efforts and Policies that Foster Health, Wellness and Safety

School	Importance				Implementation			
	VI	I	U	VU	HI	I	LI	NI
A ^a	64.5	32.3	3.2	0	32.3	48.4	16.1	0
B ^a	68.8	25	6.3	0	31.3	37.5	31.3	0
C	40	50	10	0	40	30	20	10

Note: Importance (VI=Very Important, I=Important, U=Unimportant, VU=Very Unimportant); Implementation (HI=Highly Implemented, I=Implemented, LI=Limited Implementation, NI=Not Implemented); ^a Percentage total less than 100 with inclusion of nonresponses.

The final two essential characteristics of the middle school concept were combined for measurement on the National Middle School Survey. Characteristic 15 is that the school actively involves families in the education of their children and characteristic 16 is the school includes community and business partners (AMLE, 2010). Table 57 displays the administration and faculty perceptions when asked to indicate their opinion about the degree of importance in having the school initiate family and community partnerships and rate the level of implementation at their school. The median for all three schools combined was 3.00 for both importance and implementation (“Very Important” and “Highly Implemented”) on a 4-point Likert scale. Only the faculty of School C responded with a mean perception level of implementation below 2.00

(“Implemented”) at 1.86.

Table 57

Administration and Faculty Response to School Initiated Family and Community Partnerships

	Administration				Faculty			
	Importance		Implementation		Importance		Implementation	
	M (SE)	SD	M (SE)	SD	M (SE)	SD	M (SE)	SD
School A	2.50 (.50)	.71	2.50 (.50)	.71	2.69 (.09)	.47	2.54 (.12)	.64
School B	2.00 (-)	-	2.00 (-)	-	2.53 (.13)	.52	2.53 (.13)	.52
School C	2.33 (.33)	.58	2.00 (.58)	1.00	2.71 (.18)	.49	1.86 (.34)	.90

Note: 4-point measurement scale for Importance (3=Very Important, 2=Important, 1=Unimportant, 0=Very Unimportant); Implementation (3=Highly Implemented, 2=Implemented, 1=Limited Implementation, 0=Not Implemented).

As displayed in Table 58, in which all responses for administration and faculty were combined, the percentage for each response choice of school initiated family and community partnerships revealed that all three schools had all responses for either “Very Important” or “Important,” and School B had all responses for “Highly Implemented” and “Implemented” as well. School A had 90.4% for both levels of implementation, yet School C had a response of only 60% for “Highly Implemented” and “Implemented,” demonstrating a significant inconsistency despite unanimous perceptions of extreme importance.

Table 58

School Response Percentages to School Initiated Family and Community Partnerships

School	Importance				Implementation			
	VI	I	U	VU	HI	I	LI	NI
A ^a	67.7	32.3	0	0	58.1	32.3	6.5	0
B ^a	50	50	0	0	50	50	0	0
C	60	40	0	0	30	30	40	0

Note: Importance (VI=Very Important, I=Important, U=Unimportant, VU=Very Unimportant); Implementation (HI=Highly Implemented, I=Implemented, LI=Limited Implementation, NI=Not Implemented); ^a Percentage total less than 100 with inclusion of nonresponses.

Evaluation Question 5. “According to the SEI, what are the current levels of psychological and cognitive engagement in each school’s adolescent population?” The SEI (Appendix B) measures both psychological and cognitive engagement of participating students using a 4-point Likert scale with three subscales for each type. The psychological engagement subscales include student perspectives of teacher/student relationships, peer support, and family support; and cognitive engagement subscales include student perspectives of control and relevance of school work, future aspirations, and extrinsic motivation. As is typically done with the SEI, all statements related to each subscale have been averaged together in calculating one general level of that individual aspect of student engagement. Table 59 shows the percentage and number of students at each grade level that gained parental consent to participate in both surveys.

Table 59

Student Survey Participants

	Sixth Grade	Seventh Grade	Eighth Grade	Total
School A	33% (23)	51% (36)	16% (11)	70
School B	33% (35)	35% (37)	31% (33)	105
School C	34% (16)	45% (21)	21% (10)	47

The first subscale of psychological engagement on the SEI is teacher/student relationships which included the following nine items to which students responded:

1. My teachers are there for me when I need them.
2. Adults at my school listen to the students.
3. The school rules are fair.
4. Most teachers at my school are interested in me as a person, not just as a student.
5. Overall, my teachers are open and honest with me.
6. Overall, adults at my school treat students fairly.
7. I enjoy talking to the teachers here.
8. I feel safe at school.
9. At my school, teachers care about students.

Table 60 displays student perception means of the teacher/student relationship subscale for each grade level (see Table H1 in Appendix H for individual subscale item means). Participants at School A responded to all subscale items with a mean level of 3.00 (“Agree”) and above on a 4-point Likert scale. The cumulative subscale mean was

3.30 with a range of .54 between means and an average interquartile range of 1.00, with high reliability as demonstrated by Cronbach's alpha ($\alpha=.87$). Schools B and C had similar results to School A with the exception of responses to "The school rules are fair" and "Most teachers at my school are interested in me as a person, not just as a student" which both had mean levels below 3.00. The cumulative subscale mean for School B was slightly lower at 3.16 and with a higher range of .71 between item means and had an average interquartile range of 1.11 with high reliability ($\alpha=.88$). School C's mean levels of teacher/student relationships had declining engagement in comparing sixth grade to eighth grade, which was a common trend with other subscales for this school despite a generally high level of satisfaction. The cumulative subscale mean for School C was 3.20 with a range of .74 between means and an average interquartile range of 1.00 with high reliability ($\alpha=.85$).

Table 60

Mean Student Response for Teacher/Student Relationship Subscale

School	Sixth Grade		Seventh Grade		Eighth Grade		Total
	M (SE)	SD	M (SE)	SD	M (SE)	SD	M (SE)
A	3.38 (.13)	.61	3.22 (.12)	.74	3.38 (.18)	.61	3.30 (.08)
B	3.13 (.14)	.80	3.28 (.12)	.75	3.08 (.13)	.73	3.17 (.08)
C	3.44 (.17)	.67	3.08 (.15)	.67	2.95 (.21)	.66	3.18 (.10)

Note: 4-point Likert scale used (4=Strongly Agree, 3=Agree, 2=Disagree, 1=Strongly Disagree). Means of all nine subscale items averaged together for one general level of student engagement characteristic per grade level and school.

Table 61 shows the average percentage for each response choice of teacher/student relationship subscale items. Each school had similar percentages with the majority of responses being “Agree” at an average of 46.4% among all three schools. The average response for “Strongly Agree” and “Agree” combined was 84.8% for all three schools demonstrating that the overwhelming majority of middle school students surveyed had a positive response to their perception of the support received from their respective teachers.

Table 61
Average Student Response Percentages for Teacher/Student Relationship Subscale Items

	School A	School B	School C
Strongly Agree	42.7	38	34.3
Agree	45.5	43.2	50.6
Disagree	10.2	13.9	11.6
Strongly Disagree	1.4	3.8	2.6

Note: Percentage totals less than 100 with inclusion of nonresponses.

The second subscale of psychological engagement is student perspective of peer support that used the following six items to measure:

1. Other students here like me the way I am.
2. Other students at school care about me.
3. Students at my school are there for me when I need them.
4. Students here respect what I have to say.
5. I enjoy talking to the students here.
6. I have some friends at school.

Table 62 shows the perception of peer support at each grade level for this subscale (see Table H2 in Appendix H for individual subscale item means). All subscale item responses for School A had a mean level of at least 3.00 (“Agree”) on a 4-point Likert scale, except for response to the statement, “Students here respect what I have to say.” The cumulative subscale mean for School A was 3.31 with a range of .94 between means and an average interquartile range of .79 with high reliability ($\alpha=.81$). The responses of student participants of School B were similar to School A, especially with responses to “I have some friends at school” at a level of 3.69 and highest among all response means. The cumulative subscale mean for School B was 3.20 with a range of 1.02 among means and an average interquartile range of 1.00 with high reliability ($\alpha=.84$). The cumulative subscale mean was 3.11 with a range of 1.05 between means and an average interquartile range of .96 with high reliability of subscale items ($\alpha=.88$). Despite these generally high levels of peer support, Schools B and C had lower levels of engagement in eighth grade in comparison to sixth grade, which was the opposite of School A that demonstrated an increasing level of engagement with the increase in grade level.

Table 62

Mean Student Response for Peer Support Subscale

School	Sixth Grade		Seventh Grade		Eighth Grade		Total
	M (SE)	SD	M (SE)	SD	M (SE)	SD	M (SE)
A	3.30 (.12)	.59	3.27 (.11)	.66	3.44 (.18)	.58	3.31 (.07)
B	3.30 (.13)	.76	3.16 (.14)	.86	3.08 (.13)	.75	3.18 (.08)
C	3.31 (.16)	.66	2.98 (.15)	.69	3.08 (.22)	.69	3.12 (.10)

Note: 4-point Likert scale used (4=Strongly Agree, 3=Agree, 2=Disagree, 1=Strongly Disagree). Means of all six subscale items averaged together for one general level of student engagement characteristic per grade level and school.

As shown in Table 63, the average response percentages for each choice in all three schools for peer support subscale items were similar with the exception of School B in which “Strongly Agree” had the highest response at 41.7% and “Strongly Disagree” at 6.1%, which demonstrates greater variance of response. The combined response of “Agree” and “Strongly Agree” for each school made up an average of 83.3% across all three student populations demonstrating an overwhelming positive response to perceived peer support.

Table 63

Average Student Response Percentages for Peer Support Subscale Items

	School A	School B	School C
Strongly Agree	42.6	41.7	32.3
Agree	45.7	38.3	49.3
Disagree	10.3	12.1	13.8
Strongly Disagree	1	6.1	3.6

Note: Percentage totals less than 100 with inclusion of nonresponses.

The last subscale for psychological engagement is student perspective of family support of which the following four items were used for measurement:

1. My family/guardian(s) are there for me when I need them.
2. When something good happens at school, my family/guardian(s) want to know about it.
3. When I have problems at school my family/guardian(s) are willing to help me.
4. My family/guardian(s) want me to keep trying when things are tough at school.

Table 64 shows student perceptions of the level of family support among all three schools (see Table H3 in Appendix H for individual subscale item means). Overall, the levels of engagement related to family support were high as Schools A, B, and C had a mean level above 3.00 (“Agree”) for all subscale items on a 4-point Likert scale. School A had an overall subscale mean of 3.71 with a range of .13 between means along with an average interquartile range of .75 and a minimum standard of high reliability with a Cronbach’s alpha of .70. As for School B, the overall subscale mean was 3.60 with a

range of .25 and an average interquartile range of 1.00 with similar reliability between subscale items ($\alpha=.79$). With an overall high level of engagement, School C had the lowest subscale mean at 3.53 and a range between means of .30 with an average interquartile range of 1.00, but with low reliability ($\alpha=.59$). As with previous subscales for student engagement, School C had declining levels of engagement from sixth to eighth grade and School A demonstrated a higher level of cognitive engagement in eighth grade in comparison to sixth grade.

Table 64

Mean Student Response for Family Support Subscale

School	Sixth Grade		Seventh Grade		Eighth Grade		Total
	M (SE)	SD	M (SE)	SD	M (SE)	SD	M (SE)
A	3.72 (.10)	.48	3.68 (.09)	.51	3.82 (.13)	.44	3.71 (.06)
B	3.63 (.10)	.59	3.61 (.10)	.62	3.53 (.10)	.57	3.59 (.06)
C	3.67 (.13)	.51	3.50 (.13)	.61	3.35 (.22)	.70	3.53 (.09)

Note: 4-point Likert scale used (4=Strongly Agree, 3=Agree, 2=Disagree, 1=Strongly Disagree). Means of all four subscale items averaged together for one general level of student engagement characteristic per grade level and school.

As displayed in Table 65, all three schools' highest average response choice for family support subscale items was "Strongly Agree," and the average response of all three schools for "Strongly Agree" and "Agree" was 96.1%. Interestingly, the disparities between "Strongly Agree" and "Agree" were less for Schools B and C in comparison to School A. School B had a difference of 33.1 percentage points along with 23.9 for

School C, yet School A had a difference of 47.8 or nearly half of all students responding “Strongly Agree” to statements regarding support received from family.

Table 65

Average Student Response Percentages for Family Support Subscale Items

	School A	School B	School C
Strongly Agree	73.2	64.3	59
Agree	25.4	31.2	35.1
Disagree	1.1	2.9	5.4
Strongly Disagree	0.4	1.2	0.6

Note: Percentage totals less than 100 with inclusion of nonresponses.

The first subscale in measuring cognitive engagement on the SEI is student perspective of control and relevance of school work. The following nine items were used for measurement of this subscale:

1. After finishing my schoolwork I check it over to see if it’s correct.
2. Most of what is important to know you learn in school.
3. When I do schoolwork I check to see whether I understand what I’m doing.
4. When I do well in school it’s because I work hard.
5. The tests in my classes do a good job of measuring what I am able to do.
6. I feel like I have a say about what happens to me at school.
7. Learning is fun because I get better at something.
8. What I’m learning in my classes will be important in my future.
9. The grades in my classes do a good job of measuring what I’m able to do.

Table 66 shows the mean levels of perceptions of students at each school for the

control and relevance of schoolwork subscale (see Table H4 in Appendix H for individual subscale item means). Unlike other subscales that demonstrated a high level of student engagement, several statements had responses averaging below 3.00 (“Agree”) for all three schools. These include responses to the statements, “I feel like I have a say about what happens to me at school” (2.74), “Learning is fun because I get better at something”(2.78), and “After finishing my schoolwork I check it over to see if it’s correct” (2.63), lowest of all cumulative means. Overall, the cumulative subscale mean for School A was 3.03 with a range of .84 between the highest and lowest means. In addition, the average interquartile range was .89 with high reliability between subscale items ($\alpha=.80$). The overall subscale mean for School B was 3.10 with a range of .88 between means and an average interquartile range of 1.11 with a minimum level of reliability ($\alpha=.74$). Lastly, the cumulative subscale mean for School C was 3.08 with a range of .86 between means and an average interquartile range of 1.03 with high reliability between subscale items ($\alpha=.81$). Overall, engagement levels were lower for eighth grade in comparison to sixth grade at Schools B and C, yet comparatively higher for eighth grade at School A as has been demonstrated in other subscales of engagement.

Table 66

Mean Student Response for Control and Relevance of Schoolwork Subscale

School	Sixth Grade		Seventh Grade		Eighth Grade		Total
	M (SE)	SD	M (SE)	SD	M (SE)	SD	M (SE)
A	3.09 (.16)	.76	2.93 (.12)	.74	3.18 (.20)	.64	3.02 (.09)
B	3.21 (.13)	.74	3.16 (.13)	.78	2.91 (.13)	.75	3.10 (.08)
C	3.21 (.18)	.72	2.98 (.19)	.85	3.02 (.23)	.73	3.07 (.12)

Note: 4-point Likert scale used (4=Strongly Agree, 3=Agree, 2=Disagree, 1=Strongly Disagree). Means of all nine subscale items averaged together for one general level of student engagement characteristic per grade level and school.

As shown in Table 67, the average student response percentages for subscale items combined demonstrate similarity between schools in perception of control and relevance of schoolwork. With the exception of School B, the highest average response of students was “Agree,” as School B had nearly identical responses for both “Agree” and “Strongly Agree.” On average, middle school students responded positively to control and relevance of schoolwork as evidenced by having a combined 77.8% of School A, 83% for School B and 77% for School C to both “Agree” and “Strongly Agree.”

Table 67

Average Student Response Percentages for Control and Relevance of Schoolwork Subscale Items

	School A	School B	School C
Strongly Agree	27.8	41.3	33.3
Agree	50.5	41.7	43.7
Disagree	17.1	20.3	16.5
Strongly Disagree	4.3	5.7	5

Note: Percentage totals less than 100 with inclusion of nonresponses.

The second aspect of cognitive engagement measured by the SEI is student perspective of future aspirations. The following five items were used to measure this subscale:

1. My education will create many future opportunities for me.
2. Going to school after high school is important.
3. I plan to continue my education following high school.
4. School is important for achieving my future goals.
5. I am hopeful about my future.

Table 68 shows the mean response for the participating students of each school for this subscale (see Table H5 in Appendix H for individual subscale item means).

Results for this subscale were high as the mean level of all subscale items were above 3.00 (“Agree”) on a 4-point Likert scale. The cumulative subscale mean was 3.79 for School A with a range of .18 between means and an average interquartile range of .05 with high reliability ($\alpha=.84$). For School B, the cumulative subscale mean was similar to

School A at 3.72 with a range of .09 between means and an average interquartile range of .80 with lower reliability between subscale items in comparison to School A at .74.

School C's cumulative subscale mean was 3.68 with a range of .14 between means and an average interquartile range of .80 with high reliability ($\alpha=.81$). Differences were negligible in comparing engagement levels between sixth and eighth grade of each school.

Table 68

Mean Student Response for Future Aspirations Subscale

School	Sixth Grade		Seventh Grade		Eighth Grade		Total
	M (SE)	SD	M (SE)	SD	M (SE)	SD	M (SE)
A	3.70 (.13)	.64	3.83 (.07)	.41	3.80 (.13)	.42	3.78 (.06)
B	3.71 (.09)	.53	3.75 (.09)	.52	3.70 (.09)	.49	3.72 (.05)
C	3.76 (.11)	.43	3.55 (.15)	.68	3.74 (.14)	.46	3.66 (.08)

Note: 4-point Likert scale used (4=Strongly Agree, 3=Agree, 2=Disagree, 1=Strongly Disagree). Means of all five subscale items averaged together for one general level of student engagement characteristic per grade level and school.

According to Table 69 the average student response for future aspirations subscale items was overwhelming for “Strongly Agree” with only an average response of 1.7% for “Disagree” and “Strongly Disagree” combined. Almost every student surveyed across all three student populations responded positively in their perceptions of future opportunities and continuing schooling beyond high school.

Table 69

Average Student Response Percentages for Future Aspirations Subscale Items

	School A	School B	School C
Strongly Agree	80.6	74.5	70.2
Agree	15.4	22.3	24.2
Disagree	2.3	2.5	4.3
Strongly Disagree	0.6	0.2	0

Note: Percentage totals less than 100 with inclusion of nonresponses.

The last subscale of cognitive engagement is student perspective on extrinsic motivation that used the following two statements to measure:

1. I'll learn, but only if the teacher gives me a reward. (reverse keyed)
2. I'll learn, but only if my family/guardian(s) give me a reward. (reverse keyed)

Table 70 shows the responses of this subscale which are reverse keyed, as is typically done with this subscale of the SEI, to convert negatively worded statements to positive and maintain consistency of statistical analysis used. The cumulative subscale mean for School A was 3.67 with an average interquartile range of 1.00 and high reliability ($\alpha=.84$), while School B was similar with a cumulative subscale mean of 3.62 and an average interquartile range of 1.00 and minimum high reliability ($\alpha=.77$). Lastly, School C had a subscale mean of 3.61 and an average interquartile range of 1.00, but with low reliability between the two subscale items ($\alpha=.67$). Mean levels of student engagement related to extrinsic motivation increased in School A from sixth to eighth, yet mean levels decreased in Schools B and C, despite all levels consistently remaining above 3.00 ("Agree") on a 4-point Likert scale.

Table 70

Mean Student Response for Extrinsic Motivation Subscale

School	Sixth Grade		Seventh Grade		Eighth Grade		Total
	M (SE)	SD	M (SE)	SD	M (SE)	SD	M (SE)
A	3.70 (.11)	.51	3.61 (.10)	.62	3.82 (.12)	.40	3.67 (.07)
B	3.71 (.11)	.63	3.69 (.10)	.63	3.46 (.11)	.64	3.62 (.06)
C	3.72 (.12)	.46	3.60 (.12)	.54	3.45 (.23)	.73	3.61 (.08)

Note: 4-point Likert scale used (4=Strongly Agree, 3=Agree, 2=Disagree, 1=Strongly Disagree). Means of all five subscale items averaged together for one general level of student engagement characteristic per grade level and school.

Evaluation Question 6. “According to the MSLSS, what are the current levels of GLS in each school’s adolescent population?” Divided into five subscales and using a 6-point Likert scale, the MSLSS (Appendix C) includes measurement of GLS as it relates to family, friends, school, living environment, and self. All negatively worded items were reverse keyed by the researcher to convert responses to positive perceptions and maintain comparable statistics of life satisfaction, as is typically done on the MSLSS. The item responses for each subscale have been averaged together to calculate one general level of satisfaction for each subscale.

As most directly relating to the purposes of middle school program evaluation, the student perceptions of satisfaction with school used the following eight items to measure:

1. I feel bad at school (reverse keyed).
2. I learn a lot at school.

3. There are many things about school I don't like (reverse keyed).
4. I wish I didn't have to go to school (reverse keyed).
5. I look forward to going to school.
6. I like being in school.
7. School is interesting.
8. I enjoy school activities.

Table 71 shows cumulative mean perceptions for this subscale of GLS (see Table I1 in Appendix I for individual subscale item means). Among all three schools, each item had an average mean response of agreement or above 4.00 ("Mildly Agree") on a 6-point Likert scale with the exception of responses to the statements, "There are many things about school I don't like" (3.40), "I wish I didn't have to go to school" (3.74), and "I look forward to going to school" (3.82). The cumulative subscale mean was highest for School A at 4.28 with a range of 1.39 and the interquartile range averaged 1.86 with high internal reliability, as determined by Cronbach's alpha (α) of .86. Overall, the cumulative subscale mean of School B was 4.24 with a range of 1.88 and an average interquartile range of 1.63 with high internal reliability (α =.86). School C had a lower cumulative subscale mean at 4.02 with a range of 1.67 and a greater interquartile range average of 2.09, in comparison to Schools A and B, in addition to greater internal reliability among subscale items (α =.93). Unlike engagement subscales, all three schools had declining levels of school satisfaction in comparing sixth grade to eighth grade, with School C having a decline of 1.14 or 25%.

Table 71

Mean Student Response for School Satisfaction Subscale

School	Sixth Grade		Seventh Grade		Eighth Grade		Total
	M (SE)	SD	M (SE)	SD	M (SE)	SD	M (SE)
A	4.43 (.30)	1.43	4.19 (.22)	1.30	4.19 (.36)	1.19	4.27 (.16)
B	4.65 (.24)	1.38	4.21 (.24)	1.44	3.83 (.25)	1.41	4.23 (.14)
C	4.55 (.34)	1.37	3.91 (.33)	1.52	3.41 (.43)	1.35	4.02 (.22)

Note: 6 point Likert scale used (6=Strongly Agree, 5=Moderately Agree, 4=Mildly Agree, 3=Mildly Disagree, 2=Moderately Disagree, 1=Strongly Disagree). Means of all nine subscale items averaged together for one general level of life satisfaction characteristic per grade level and school.

As shown in Table 72, the average percentages for each response choice for administration and faculty combined for the school satisfaction subscale items as a whole were similar between all three schools as the majority of middle school students responded positively to school satisfaction statements with a cumulative average of 68.8% between all three choices of agreement. Still, each school had an average of 29.7% of students responding negatively to school satisfaction statements with School C having the largest number of students responding negatively at 34.6%.

Table 72

Average Student Response Percentages for School Satisfaction Subscale Items

	School A	School B	School C
Strongly Agree	20.5	26.9	20.2
Moderately Agree	31.1	20.7	24.7
Mildly Agree	20.9	21.4	20.2
Mildly Disagree	14.3	11.4	16.2
Moderately Disagree	6.4	8	8
Strongly Disagree	6.1	8.4	10.4

Note: Percentage totals less than 100 with inclusion of nonresponses.

The second aspect of GLS measured by the MSLSS was family satisfaction. The following seven items were used to measure student perceptions of family satisfaction:

1. I like spending time with my parents.
2. My family is better than most.
3. I enjoy being at home with my family.
4. My family gets along well together.
5. My parents treat me fairly.
6. Members of my family talk nicely to one another.
7. My parents and I do fun things together.

Table 73 displays the student perception levels of each school for the family satisfaction subscale (see Table I2 in Appendix I for individual subscale item means).

All subscale items for all three schools averaged mean levels above 4.00 (“Mildly Agree”) on a 6-point Likert scale. School A had the highest cumulative subscale mean at

5.06 with the interquartile ranges of subscale items having averaged 1.54 with a high level of internal consistency, as determined by Cronbach's alpha (α) of 0.90. The overall subscale mean for School B was 4.95 with an interquartile range that averaged 1.71 with high internal consistency ($\alpha=.91$). Lastly, the cumulative subscale mean for School C was 4.84, yet the interquartile range was largest among all three schools with an average of 2.04 and high internal consistency ($\alpha=.91$). Despite generally high levels of family satisfaction, significant declines were demonstrated for Schools B and C in the level of family satisfaction from sixth to eighth grade, and as seen in previous subscales, there was an increase in the level of family satisfaction for students of School C across the same grade levels.

Table 73

Mean Student Response for Family Satisfaction Subscale

School	Sixth Grade		Seventh Grade		Eighth Grade		Total
	<i>M</i> (<i>SE</i>)	<i>SD</i>	<i>M</i> (<i>SE</i>)	<i>SD</i>	<i>M</i> (<i>SE</i>)	<i>SD</i>	<i>M</i> (<i>SE</i>)
A	4.91 (.29)	1.40	5.04 (.18)	1.06	5.42 (.21)	0.69	5.06 (.14)
B	5.13 (.21)	1.19	4.93 (.21)	1.30	4.78 (.23)	1.30	4.95 (.13)
C	5.03 (.30)	1.16	4.99 (.25)	1.12	4.21 (.48)	1.52	4.84 (.19)

Note: 6 point Likert scale used (6=Strongly Agree, 5=Moderately Agree, 4=Mildly Agree, 3=Mildly Disagree, 2=Moderately Disagree, 1=Strongly Disagree). Means of all nine subscale items averaged together for one general level of life satisfaction characteristic per grade level and school.

As displayed in Table 74, the average percentage for each response choice of administration and faculty combined was similar among all three schools with the

majority of students responding positively to statements of family support. School A had the highest percentage of students responding positively with a combined 88.7% among the three choices of agreement and nearly half of the middle school students who participated responded with “Strongly Agree” (47.3%). School B had a similar percentage of students responding with agreement at 86% and only 11% responding in disagreement, and comparatively School C had 82% in combined agreement and 15.8% in combined disagreement which was highest among the three schools.

Table 74

Average Student Response Percentages for Family Satisfaction Subscale Items

	School A	School B	School C
Strongly Agree	47.3	43.5	42.9
Moderately Agree	26.7	25.5	20.6
Mildly Agree	14.7	17	18.5
Mildly Disagree	6.7	5.4	9.4
Moderately Disagree	2.7	1.6	4.6
Strongly Disagree	1.4	4	1.8

Note: Percentage totals less than 100 with inclusion of nonresponses.

The third aspect of GLS measured by the MSLSS is the friends satisfaction subscale which used the following nine items to measure:

1. My friends are nice to me.
2. I have a bad time with my friends (reverse keyed).
3. My friends are great.
4. My friends will help me if I need it.

5. My friends treat me well.
6. My friends are mean to me (reverse keyed).
7. I wish I had different friends (reverse keyed).
8. I have a lot of fun with my friends.
9. I have enough friends.

Table 75 shows student perceptions of the friends satisfaction subscale (see Table I3 in Appendix I for individual subscale item means). All subscale items for friends satisfaction among all three schools had mean response levels above 5.00 (“Moderately Agree”) on a 6-point Likert scale, with the exception of responses to the statement, “I have enough friends” at 4.57. The cumulative subscale mean was highest for School A at 5.26 with a range of .65 between the highest and lowest mean and an average interquartile range of 1.11 with high reliability ($\alpha=.88$). In comparison, the cumulative subscale mean was 5.16 with a range of .93 between the highest and lowest mean and an interquartile range of 1.22 with high reliability ($\alpha=.89$). School C demonstrated greater variance resulting in a cumulative subscale mean of 4.83 with a range of .98 between highest and lowest means and an interquartile range of 1.69 with high reliability ($\alpha=.84$). As a consistent finding of the results of student surveys of student engagement and life satisfaction of this study, School A had an increase in the level of satisfaction in comparing sixth to eighth grade and Schools B and C demonstrated a decline in the level of satisfaction across the same grades.

Table 75

Mean Student Response for Friends Satisfaction Subscale

School	Sixth Grade		Seventh Grade		Eighth Grade		Total
	M (SE)	SD	M (SE)	SD	M (SE)	SD	M (SE)
A	5.19 (.22)	1.06	5.27 (.16)	0.96	5.33 (.32)	1.06	5.26 (.12)
B	5.28 (.18)	1.01	5.17 (.20)	1.24	5.07 (.21)	1.20	5.17 (.12)
C	4.92 (.31)	1.21	4.88 (.23)	1.05	4.58 (.47)	1.48	4.83 (.18)

Note: 6 point Likert scale used (6=Strongly Agree, 5=Moderately Agree, 4=Mildly Agree, 3=Mildly Disagree, 2=Moderately Disagree, 1=Strongly Disagree). Means of all nine subscale items averaged together for one general level of life satisfaction characteristic per grade level and school.

As shown in Table 76, the percentage for each response choice of the items of the friends satisfaction subscale show lower levels of agreement for School C compared with Schools A and B. School A had 93.1% of students responding at one of the three levels of agreement, along with 87.6% for School B. Despite School C having a similar amount of students responding with agreement to friends satisfaction statements at 86.8%, there was a lower number of students responding “Strongly Agree” with more students responding “Moderately Agree” and “Mildly Agree” in comparison. Both Schools A and B had more than half of all participating students responding “Strongly Agree” at 53.8% and 53.6% respectively.

Table 76

Average Student Response Percentages for Friends Satisfaction Subscale Items

	School A	School B	School C
Strongly Agree	53.8	53.6	35.5
Moderately Agree	27.6	24.1	32.4
Mildly Agree	11.7	9.9	18.9
Mildly Disagree	3.6	4.4	5
Moderately Disagree	0.8	2.7	4.7
Strongly Disagree	1.7	2.6	2.4

Note: Percentage totals less than 100 with inclusion of nonresponses.

For GLS, the fourth subscale is living environment having been measured by the following nine items:

1. There are lots of fun things to do where I live.
2. I wish I lived in a different house (reverse keyed).
3. I like my neighborhood.
4. I wish I lived somewhere else (reverse keyed).
5. This town is filled with mean people (reverse keyed).
6. My family's house is nice.
7. I like my neighbors.
8. I wish there were different people in my neighborhood (reverse keyed).
9. I like where I live.

Table 77 shows the student perception levels for living environment satisfaction (see Table I4 in Appendix I for individual subscale item means). All subscale items

among all three schools averaged above 4.00 (“Mildly Agree”) on a 6-point Likert scale, with the exception of the average response to the statement, “I wish there were different people in my neighborhood” at 3.66. The cumulative subscale mean for School A was highest at 4.79, and subscale items had high reliability ($\alpha=.84$) with a range of 1.71 between the highest and lowest means and an interquartile average of 1.89. For School B, there was high reliability of subscale items ($\alpha=.90$) with a cumulative mean of 4.53 and a range between means of .99. The average interquartile range of living environment subscale items for School B was higher in comparison to other subscales at 2.39. School C’s cumulative subscale mean was 4.40 with a range between means of 1.48 and an average interquartile range of 2.53 which was highest among the three schools, but high reliability among subscale items ($\alpha=.82$). Consistently, School A demonstrated the highest means for each subscale and a tendency of levels to increase across middle grades with the living environment satisfaction subscale showing the same trend. On the other hand, Schools B and C demonstrated lower levels of satisfaction in eighth grade in comparison to sixth and seventh grades.

Table 77

Mean Student Response for Living Environment Satisfaction Subscale

School	Sixth Grade		Seventh Grade		Eighth Grade		Total
	M (SE)	SD	M (SE)	SD	M (SE)	SD	M (SE)
A	4.75 (.28)	1.36	4.71 (.24)	1.46	5.12 (.35)	1.15	4.79 (.17)
B	4.82 (.27)	1.54	4.53 (.27)	1.62	4.40 (.28)	1.62	4.58 (.16)
C	4.60 (.43)	1.70	4.42 (.30)	1.38	4.03 (.49)	1.56	4.40 (.22)

Note: 6 point Likert scale used (6=Strongly Agree, 5=Moderately Agree, 4=Mildly Agree, 3=Mildly Disagree, 2=Moderately Disagree, 1=Strongly Disagree). Means of all nine subscale items averaged together for one general level of life satisfaction characteristic per grade level and school.

As shown in Table 78, the percentage for each response choice of living environment subscale statements for administration and faculty combined was similar among all three schools with the exception of School A which had a slightly higher percentage of students who responded in combined agreement at 80.4% for all three agreement choices as opposed to School B with 74.4% and School C with 72.6%. School C had 27.2% of participating students indicating disagreement with living environment satisfaction compared with 23.2% for School B and 19.2% for School A. Overall, all three schools had the majority of students responding positively to statements associated with perceptions of their neighbors, neighborhood and the house in which they live.

Table 78

Average Student Response Percentages for Living Environment Satisfaction Subscale Items

	School A	School B	School C
Strongly Agree	45.2	41.8	34.5
Moderately Agree	23	19.6	20.6
Mildly Agree	12.2	13	17.5
Mildly Disagree	8.6	9.4	11.8
Moderately Disagree	6	4.7	8.3
Strongly Disagree	4.6	9.1	7.1

Note: Percentage totals less than 100 with inclusion of nonresponses.

The final aspect of GLS measured by the MSLSS is satisfaction with self. The following seven items were used to measure this subscale:

1. I am fun to be around.
2. There are lots of things I can do well.
3. I think I am good looking.
4. I like myself.
5. Most people like me.
6. I am a nice person.
7. I like to try new things.

Table 79 shows the student perceptions of satisfaction with the self for all three schools (see Table I5 in Appendix I for individual subscale item means). All subscale items had an average mean level between all three schools of 4.00 (“Mildly Agree”) and

above on a 6-point Likert scale. School A had the highest cumulative subscale mean with 4.92 and a range of 1.03 between means with an average interquartile range of 1.39, yet with slightly lower reliability compared to other subscales ($\alpha=.78$). The reliability of subscale items for School B was similar to School A at a Cronbach alpha of .77 and a cumulative subscale mean of 4.79 with a range of .94 between means and an average interquartile range of 1.50. Lastly, School C had similar reliability ($\alpha=.78$) for all subscale items and a cumulative subscale mean of 4.80 with a range of .64 between means and an average interquartile range of 1.68. Declines of Schools B and C were less significant in comparison to School A as all three schools had similar mean levels of self-satisfaction.

Table 79

Mean Student Response for Self Satisfaction Subscale

School	Sixth Grade		Seventh Grade		Eighth Grade		Total
	M (SE)	SD	M (SE)	SD	M (SE)	SD	M (SE)
A	4.81 (.23)	1.10	4.95 (.17)	0.99	5.07 (.30)	0.98	4.92 (.12)
B	4.83 (.21)	1.16	4.87 (.19)	1.14	4.66 (.21)	1.21	4.79 (.12)
C	4.93 (.29)	1.14	4.78 (.25)	1.13	4.77 (.31)	0.98	4.83 (.16)

Note: 6 point Likert scale used (6=Strongly Agree, 5=Moderately Agree, 4=Mildly Agree, 3=Mildly Disagree, 2=Moderately Disagree, 1=Strongly Disagree). Means of all nine subscale items averaged together for one general level of life satisfaction characteristic per grade level and school.

As demonstrated in Table 80, the percentage of each response choice for self-satisfaction subscale items was similarly distributed among all three schools. Students

were generally satisfied with perceptions of themselves, having an average of 86.4% in combined responses among the three agreement choices. School A had nearly three-fourths of participating students responding at “Strongly Agree” or “Moderately Agree” (74.3%) as students at Schools B and C both responded with 65.6% for these same two response choices combined.

Table 80

Average Student Response Percentages for Self Satisfaction Subscale Items

	School A	School B	School C
Strongly Agree	33.3	32.1	32.5
Moderately Agree	41	33.5	33.1
Mildly Agree	15.1	19.2	19.4
Mildly Disagree	3.7	5.5	7.9
Moderately Disagree	3.3	2.6	3.3
Strongly Disagree	2	3.5	0.9

Note: Percentage totals less than 100 with inclusion of nonresponses.

Summary

The purpose of this study was to perform program evaluation of three private Christian schools to determine the level of implementing components of a middle school concept and the levels of cognitive engagement and GLS of students. Each of the three subject schools have implemented middle school programs to meet the unique developmental needs of adolescents; and to this point, no formal evaluation had taken place to determine the level of fidelity with the essential characteristics of the middle school concept. Schools that implement the characteristics of effective adolescent

education have demonstrated higher student achievement and improvements in achievement scores over time (Flowers et al., 2003); and this improvement should be accompanied by higher self-appraisal of adolescent's school and life experiences, as was presented in Chapter 4.

Despite many similarities between the three schools of this study, the results of program evaluation performed demonstrated variation between each school in implementing various aspects of the middle school concept in regards to curriculum, instruction and assessment, leadership and organization, and culture and community characteristics. Student levels of cognitive engagement and GLS reflect the unique ways in which each private school attempts to meet the needs of generally smaller, more ethnically homogenous and higher socioeconomic student populations. In Chapter 5, a discussion of the significance of the results of each school with regard to each evaluation question is presented along with implications for future research in effective adolescent education and private education.

Chapter 5: Discussion

Introduction

The purpose of this study was to determine the level of implementing a middle school concept in three private Christian schools. A program evaluation using the CIPP Model developed by Stufflebeam (1968) was conducted with the goal of assessing the level of implementing characteristics of the middle school concept and resulting levels of cognitive and psychological student engagement and GLS. Stufflebeam's CIPP model uses a comprehensive framework to serve in both a formative and summative role to assess the impact of services and target the needs of participants (Stufflebeam & Shinkfield, 2007). For the purposes of this study, the perceptions of administration and faculty of the importance and implementation of middle school practices were measured using the National Middle School Survey (McEwin & Greene, 2011) and by conducting individual interviews. Additionally, student perceptions of engagement and life satisfaction were measured using the SEI (Appleton & Christenson et al., 2006) and MSLSS (Huebner, 1994).

Implication of Findings

A summary of research conducted for this program evaluation is presented in the following section comparing results of the program evaluation of three private middle schools with established middle school practices and early adolescent research. Administration and faculty perceptions of middle school concept implementation are discussed first followed by a discussion of student perceptions of engagement and life satisfaction.

Middle school concept. Findings of the program evaluation performed at Schools A, B, and C indicated levels of implementing middle school concept

characteristics in the categories of curriculum, instruction, and assessment; leadership and organization; and culture and community. Findings are presented as the percentage of administration and/or faculty who indicated agreement or disagreement to survey items along a 4-point Likert scale. Each finding is compared with data from McEwin and Greene's (2011) national study of middle school program practices taken from a sample of approximately 100 schools identified as HSMSs by the National Association of Secondary School Principals. The McEwin and Greene study was the fifth in a series of national studies performed from 1968 to 2001 that demonstrated significant success and dramatic changes to the defining characteristics of a middle school concept in its first 4 decades (McEwin et al., 2003). The same survey instrument, the National Middle School Survey, was used in both national studies and the program evaluation of this study, therefore serving to provide a comparison to the most recent and comprehensive research available of middle school concept implementation and standards of best practice.

Curriculum, instruction, and assessment characteristics. Teachers and administrators at School C placed lower importance on having middle school teachers who were licensed or certified at their schools than administrators and teachers in Schools A and B (see Table 12). Interviews of School C described faculty as being prepared to teach at the middle level; however, survey results indicated that 50% were in agreement that it was important to hold middle-level licensure/certification and 20% were in agreement that teachers holding middle-level licensure/certification had been implemented at their school. These results, compared with perceived implementation of 81% for School A and 63% for School B, suggest that School C lacked a full understanding of the needs of early adolescence and valuing middle-level licensure/certification as evidence of being prepared to teach this age group.

A distinct pedagogical approach is necessary in meeting the needs of this key transitional period of adolescence (Lounsbury, 2009). Flowers et al. (2003) found that teachers with middle grades certification reported the highest levels of middle school practices and that students at schools with sustained high levels of middle school practices demonstrated higher achievement and improvements in achievement scores over time. Similar to the private schools of this study, McEwin and Greene (2011) found that the majority of all core teachers lack middle-level licensure/certification which has been a major roadblock to the full success of middle schools nationally.

In regards to educators using multiple learning and teaching approaches, the similarity of each private school of this study in comparison to national studies is noteworthy. In each private school, the teaching methods of direct instruction and cooperative learning were perceived as being used more regularly compared with inquiry teaching, independent study, and online instruction (see Table 27). Similar to the private schools of this study in which the regular use of direct instruction and cooperative learning was on average 85% compared to only 35% for the use of inquiry teaching, independent study and online instruction, the regular use of direct instruction and cooperative learning for HSMSs was 37 percentage points higher in comparison to other teaching methods (McEwin & Greene, 2011). The use of more innovative and appropriate student-centered methods of instruction is an identified need of the middle schools of this study as an overreliance on teacher-centered direct instruction continues in middle schools nationally (McEwin & Greene, 2011).

Regarding the essential characteristic in which curriculum should be challenging, exploratory, integrative, and relevant (AMLE, 2010), each school indicated comparable levels to national data for perceived importance and implementation, yet survey results

suggested the need for more student-centered exploratory curriculum at Schools A and B. Only the administration of School C perceived having an interest course/mini-course program, compared to 49% of HSMSs having offered short-term, student interest-centered courses at their respective schools (McEwin & Greene, 2011). Additionally, this study evaluated the incorporation of technology into instruction with research school responses indicating discrepancies in comparison with national data. Taking into consideration that the use and availability of technology changes from year to year and that national data were collected in 2009, most of the evaluation of technology for this study demonstrated lower levels of incorporation of technology into instruction (see Table 28) compared with national studies showing the majority of middle schools were equipped with a variety of advanced technologies to support student learning (George, 2009b).

Leadership and organization characteristics. An additional essential characteristic of the middle school concept is for leadership to be committed to the concept and have a working knowledge about this age group. Research revealed that higher-performing middle schools build a culture of success by consistently maintaining evidence-based decision making from multiple sources (Wilcox & Angelis, 2007). Faculty indicated in interviews a perceived lack of collaboration with administration in the decision-making process of School B. Teachers referenced a lack of clear expectations, being aware of student needs, maintaining consistent and productive collaboration, and promoting various strategies to help students succeed, which have been identified by researchers as core practices of evidence-based decision making (Wilcox & Angelis, 2007). The self-sufficiency of grade-level teams and corresponding lack of administrative involvement in grade-level decisions, as described by faculty

members, is an identified problem of School B and suggestive of the need for stronger leadership in assisting faculty in fully implementing organizational components of the middle school concept.

Essential to the middle school concept is for professional development to be ongoing and reflect best educational practices (AMLE, 2010). As suggested by faculty survey results, Schools B and C engaged in lower levels of training specific to the needs of teaching young adolescents as indicated by the lack of using various technologies as professional development resources (see Table 39). In comparison to data from the HSMS study, an average of 77% responded either “Strongly Agree” or “Agree” for all statements related to technology resources (McEwin & Greene, 2011). Interview statements by faculty and administration at Schools B and C concerning lower levels of implementation specifically referenced a lack of financial resources and prioritization in receiving training in middle school concept implementation which is suggestive of the need for greater commitment from leadership in providing training/professional development in implementing a middle school concept.

As gathered from faculty interviews concerning the level of collaboration at each school, Schools B and C had lower levels of perception in implementing organizational structures that fostered purposeful learning and meaningful relationships (see Table 7). Comparatively, the administration of School A was described by faculty as having excelled in implementing a formal process designed to connect middle school staff through purposeful collaboration and empowerment. Despite high levels of perceived community and common pedagogy by the faculty of Schools B and C, this was described by teachers as being achieved mainly through informal processes initiated by the faculty and centered upon grade-level teams operating independently. Additionally, differences

were evident for Schools B and C in the areas of flexible grouping/scheduling and interdisciplinary team organization, which additionally requires common planning time (see Table 43). This further suggests the need for stronger leadership in creating opportunities for collaboration among middle school faculty and to train faculty in how to work collaboratively using an integrated curriculum. According to researchers, the organizational health of schools most directly influences student performance, requiring that the implementation of a middle school concept coincide with a change in how people communicate, make decisions, deliver instruction, relate to students, and coordinate their work (Erb, 2006).

National surveys have indicated a dramatic increase in the percentage of schools utilizing interdisciplinary teams as there has been an increase of 47% since 1988 (McEwin et al., 2003). When asked if their middle school was organized into interdisciplinary teams and how many common planning periods teachers on teams typically have, less than half of the faculty of Schools B and C affirmed having interdisciplinary teams, with both having a mean response of less than one common planning period per week (see Table 46). Results from national surveys showed that 90% of HSMSs used interdisciplinary team organization and 94% provided five or more common planning periods per week for core teachers (McEwin & Greene, 2011). Research demonstrates that when interdisciplinary teams are consistently implemented, student self-reported outcomes improve; including less depression, fewer behavioral problems, higher self-esteem, and greater academic efficacy (Flowers et al., 2003). Furthermore, as teams operate collaboratively, teachers develop an authentic sense of community enabling them to teach with an increased sense of joy and commitment (George & Alexander, 2003). The lack of interdisciplinary team organization in Schools

B and C indicates a need for stronger leadership in creating organizational structures to foster purposeful learning and meaningful relationships among both faculty and students.

Culture and community characteristics. An additional characteristic of effective adolescent education is that every student's academic and personal development is guided by an adult advocate. National data showed more than half of HSMSs having implemented advisory programs; however, despite the importance of advisory programs having long been recognized in middle school literature, studies reveal that they are far from being universally implemented (McEwin & Greene, 2011). The lack of advisory programs and other essential practices are due primarily to insufficient support from middle school principals in attributing increased statewide assessment scores to middle school concept implementation (George & Alexander, 2003). Schools A and C both exceeded national data in implementing an advisory program; but with nearly a unanimous response of School B that advisory programs are "Very Important" or "Important," only a small fraction of administration and faculty responded that advisory groups are implemented (see Table 54). Advisory programming is a prominent need as relationships with adults form the critical pathways for adolescent learning (Jackson & Davis, 2000), and researchers found that higher-performing middle schools built a culture of success by being more aware of students' emotional and social needs and relating to students rather than focusing primarily on instructional strategies (Wilcox & Angelis, 2007).

The last essential characteristic related to culture and community states the need for schools to actively involve families in the education of their children and include community and business partners (AMLE, 2010). In comparison to national data, when faculty were asked their perceptions of the importance and implementation of school-

initiated family and community partnerships, each of the private schools of this study averaged responses substantially above HSMSs and randomly selected schools (see Table 58). As described by administration and faculty, each of the private schools excelled above national levels in developing partnerships with families and the community mainly due to smaller student populations and uniform philosophies of education.

Global education. Although not an essential characteristic of the middle school concept, global education characteristics were included as a part of this program evaluation. Despite the lack of global education as a part of each school's curriculum, there is strong support in the literature for the need to integrate elements of global education into a middle school concept due to a greater focus on students, meaningful learning connections to real-world issues, and relationships (Andrews, 2008). Despite the recognition by middle-level researchers on the importance of early adolescents gaining a global perspective through middle-level curriculum (Jackson, 2009), all three private schools perceived lower levels of emphasizing global education components, particularly social justice, humanity, civic literacy, and bilingual opportunity (see Table 21). Characteristics of the middle school concept are intended to foster the kind of flexibility in thinking that is essential for success in the 21st century global environment while bringing the curriculum a step closer to the needs of students to co-construct the experience of learning using an exploratory, integrative curriculum (Andrews, 2008).

With global educational reforms focused on proficiency in the basic competencies of reading, mathematical, and scientific literacy (Sahlberg, 2011), an essential characteristic of the middle school concept is having a strong focus on basic subjects as well (AMLE, 2010). Compared with Schools A and C, the perceptions of administration and faculty at School B indicated low implementation of this characteristic despite

believing a strong focus on basic subjects as “Very Important” or “Important” (see Table 20). All HSMSs responded at the level of “Highly Implemented” or “Implemented,” and even a sample of approximately 800 randomly selected schools responded at 98% for these same two categories (McEwin & Greene, 2011). The core features of a middle school program are being developmentally responsive, challenging, empowering, and equitable (Burton, n.d.); and lacking a strong focus on basic subjects would be critically important to address as a fundamental component, as with previously discussed essential characteristics of the middle school concept.

SEI. Findings from the SEI were organized under the two main groupings of psychological and cognitive engagement, each containing three subscales. Psychological engagement was measured by the three subscales of teacher/student relationship and peer and family support, with the subscales of control and relevance of school work, future aspirations, and extrinsic motivation measuring cognitive engagement.

Student engagement is the cornerstone of school reform efforts at all levels (National Research Council & Institute of Medicine, 2004) as it reflects a person’s active involvement in a task or activity (Reeve et al., 2004). Both forms of engagement, cognitive and psychological, are related to student views of education as a whole, instead of being limited to their particular feelings of bonding or behavior in school and are especially important because they reflect to some degree the kind of lifelong learning attitudes that educators believe should be the overarching goal of education at the middle level (Noddings, 2003). As adolescent research has identified an “engagement slide” in which engagement peaks in elementary, declines in middle school, plateaus in early high school, and increases for the remainder of high school (Lopez, 2011), the need for measuring student engagement was an essential aspect of evaluating the impact of middle

school programming.

All three schools had generally high levels of psychological and cognitive student engagement, as approximately 90% of all student responses were in agreement with subscale items. Despite high levels of student engagement, only School A had higher levels of engagement in eighth grade compared with sixth grade across all engagement subscales, with the exception of teacher/student relationships. Results indicated an average decline of 5.9% from sixth to eighth grade in all engagement subscales for Schools B and C, with School C averaging a 10% decrease across the psychological engagement subscales of teacher/student relationship and peer and family support (see Tables 60, 62, and 64). Declining levels of students' perceived support in the areas of teachers, family, and friends may be an area of concern for School C as adolescent research has found that higher levels of implementing middle school concepts translate to higher levels of relatedness (belonging) and commitment from students (Wilcox & Angelis, 2007). Furthermore, researchers have found that higher levels of relatedness and commitment from students occur more frequently in classrooms where a caring and supportive environment is created by both teachers and peers (Fredricks et al., 2004).

The majority of student engagement research has focused on the more observable indicators of behavioral engagement, mainly school participation, while ignoring the less overt subtypes that focus on the perceptions of students (Appleton et al., 2008). Although the perceptions of the students at each private school suggested high levels of psychological and cognitive engagement, results must be viewed in light of the fact that private schools generally serve student populations defined by privilege and advantage (Alt & Peter, 2002).

MSLSS. GLS is the cognitive component of what is referred to as SWB or how

people evaluate their immediate and ongoing life circumstances (Diener, 2000). Specifically, life satisfaction is defined as an individual's appraisal of the overall quality of his or her life based on self-selected standards that incorporate but also transcend the immediate effects of life events and mood states (Gilman & Huebner, 2003) and acts as a protective psychological strength providing a buffer against the effects of adverse events throughout adolescence (Suldo & Huebner, 2004). The measurement of GLS in middle school program evaluation is based on the practice of researchers using multidimensional reports that are more sensitive to the varied domains of an adolescent's life and school experience (Gilman & Huebner, 2003). As youth from various backgrounds report feelings of alienation, disenfranchisement, and dissatisfaction, even in times of prosperity (Larson, 2000), students generally view their overall lives positively in the transition through adolescence (Diener & Diener, 1996). In private schools that serve a student population that is generally of a higher SES, the following findings of the MSLSS are important for both the purpose of program evaluation and building upon current adolescent and middle school research.

All three private schools had generally high levels of life satisfaction as approximately 80% of all student responses were in agreement with subscale items. Despite these high levels, school satisfaction among all three programs indicated a decline in comparing sixth to eighth grade, with Schools B and C averaging a decline of 21% for this satisfaction subscale (see Table 71). In addition, the subscales of family, friends, living environment, and self-satisfaction all demonstrated declines from sixth to eighth grade for Schools B and C with an average of 7.7%, while School A had an average increase of 5.3% (see Tables 73, 75, 77, and 79).

Among life satisfaction subscales, the responses were highest for satisfaction with

friends which stands in contrast to research findings that positive family experiences correlate strongly with adolescent GLS, even more strongly than positive peer experiences (Dew & Huebner, 1994; Huebner, 1991). This apparent inconsistency could be explained in part by adolescent research of primarily middle-class, European-American students who found high variability of life satisfaction as students felt differently about themselves in reference to different types of relationships; and this is more pronounced in early adolescence when individual self-descriptions vary across different roles with parents, teachers, and friends (Harter et al., 1998). Researchers have found that satisfaction with teachers demonstrated declines in the initial transition to middle school, yet relational self-worth and life satisfaction around friends were often more stable or even increased during adolescence (Eccles et al., 1993). This may be a possible area of concern for Schools B and C as interviews of the administration and faculty of School A indicated an effort to develop more specific programming to meet the psychological/cognitive needs of adolescents through highly structured guidance and support services, consistent implementation of advisory programs, evidence-based decision making, and intense collaboration through interdisciplinary team organization.

Results varied widely when comparing self-satisfaction to other satisfaction subscales, most notably living environment. Students generally indicated lower levels of satisfaction in response to statements about the people in their neighborhood compared with statements about the house in which they live. Results such as this reflect student populations of a higher SES yet align with studies that have found that once basic physical and emotional needs are met, additional financial resources have been found to not significantly influence levels of life satisfaction (Gilman & Heubner, 2003). Comparatively, higher levels of self-satisfaction (see Table 80) in comparison to other

life satisfaction subscales correspond with research that has found declines in self-worth and self-esteem for students when they transition into middle school (Blyth et al., 1983; Wigfield et al., 1991); however, other studies found no change in self-worth (Crockett et al., 1989; Harter et al., 1992) and some found increases in self-worth (Schulenberg et al., 1984). As seen with the apparently high yet varied levels of life satisfaction in all three private schools, research suggests that perceptions of satisfaction play an important role in adolescents' overall adaptation, and the linking of life satisfaction with cognitive engagement gives increasing strength for implementing a middle school concept with fidelity (Lewis et al., 2011).

Final Conclusions

In comparison to the McEwin and Greene (2011) study, administration and faculty of each private school did not perceive implementation of the middle school concept in each category to the same level as its perceived importance. Compared to national studies, the private schools of this study had similar levels of perceived implementation of a middle school concept, with the exception of lower implementation in the area of leadership and organization characteristics. Survey and interview results indicated a need for increased commitment from leadership to middle school concept training/professional development and organizational structures to increase opportunities for collaboration. The need for increased commitment to training/professional development was evidenced by a lack of administration adequately describing essential characteristics of effective adolescent education or specific practices of a middle school concept and how these characteristics were being implemented program-wide. With the exception of the administration of School A which described more elements of the middle school concept and its implementation, accompanied by higher perceptions of

implementation from corresponding faculty surveys, the interviews of both administration and faculty of Schools B and C indicated more basic conceptions of adolescent needs and a more focused implementation of the middle school concept. Lacking adequate commitment to implement middle school characteristics and insufficiently distinguishing middle-level practices from other age groups resulted in minor variations of the same curricular goals and policies that apply to all students.

For various reasons, the leadership of Schools B and C have not sufficiently implemented characteristic 10 which focuses on providing organizational structures which foster purposeful learning and meaningful relationships (AMLE, 2010). This was evidenced by the lack of a distinct middle school program in each school and having relied upon independent grade/subject-level teams as a substitute for program-wide collaboration. Practices associated with this essential characteristic include flexible scheduling and grouping, advisory programs, and interdisciplinary team organization which survey results indicate were not sufficiently implemented in either school (see Tables 42, 44, and 52). Based on survey and interview data, Schools B and C generally lacked a strong focus on basic subjects, multiple instructional strategies, various formative assessment techniques, and integrating various technologies into instruction (see Tables 19, 22, 24, and 31). Each school demonstrated high levels of perceived importance for these characteristics, but implementation was at a comparatively low level.

Regarding the commitment of leadership to middle school concept training, the lack of professional preparation and certification for faculty is difficult to correct in private school environments that are limited financially and offer no incentive for increased training or licensure. From information gathered in administrative interviews

at all three schools regarding the selection of middle school faculty, teaching experience was valued over professional training and personal character qualities were valued over pedagogical practices. Leadership of each school emphasized the need to improve program effectiveness in meeting what they uniformly described as unique needs for early adolescents. Each administrator cited similar reasons for a lack of full implementation, which were mainly centered upon the limitations of recently being hired and therefore lacking sufficient time to implement needed reforms and/or a lack of financial resources.

Despite the apparent effectiveness of grade-level teams meeting the needs of their adolescent students, the lack of professional development in Schools B and C specific to the middle level needs to be addressed through stronger commitment by leadership. Without school leaders purposefully creating opportunities and valuing the use of time and resources for this purpose, implementation of middle school concepts will be difficult and in some cases lack time for implementation. Survey and interview results indicated a need for leadership to be trained in order to assist and encourage implementation of critical concepts related to collaboration and developing a shared vision that guides every decision. Leadership of each school must initiate these reforms by increasing their own commitment and knowledge about early adolescence, educational research, and best practices of middle-level education despite the financial or organizational constraints cited by each.

The overall results of student surveys indicated that all three schools had students who were highly engaged and satisfied. For participating students, these survey results are suggestive of high levels of autonomy, a sense of belonging, competence, and commitment to school as characteristics of cognitive and psychological engagement.

Additionally, survey results indicated high levels of school and life satisfaction which is suggestive of students with higher psychological strength to buffer the adverse effects typical of middle school transitions. Whether these generally high levels of engagement and global satisfaction reflect the impact of middle school programming or a socioeconomically advantaged population, the majority of students indicated strong support and satisfaction for relationships at school and home, along with having high aspirations of the future, considering schoolwork relevant to those aspirations, and being more intrinsically motivated to achieve those aspirations. Nevertheless, there were slight differences between all three schools as levels of engagement and satisfaction were highest for eighth graders at School A and increasing with grade level as opposed to decreasing with grade level at Schools B and C. As demonstrated through faculty surveys, the perceptions of School A in comparison to Schools B and C indicated a more clearly defined middle school with organizational structures in place to provide the support students need to succeed academically, socially, and emotionally, mainly as a result of significant collaboration among administration and faculty, consistency in providing support services, and active, purposeful learning for adolescents (see Tables 7 and 15). Middle-level research has established that when students are satisfied with school, they feel more deeply connected and engage in behaviors that will promote the school and their own academic achievement (DeSantis King et al., 2006).

Limitations

The following limitations prevent applicability of results to middle school programs beyond those included in this study. The primary limitation was having a single collection of data at each of the three schools. Repeated administration of faculty and student surveys over time would provide more complete data in identifying trends or

impacts of middle school programming from one year to the next. Additionally, the evaluation of Schools A and C was limited by the recent hire of new school leadership which prevented sufficient time for implementation of reforms initiated over the past school year.

Student participation acted as a limitation in the applicability of results as surveys were administered to those gaining parental consent. This reduced student participation to 26% of School A and 43% of School B; however, School C had a higher participation rate of 87% due to a small student population and the ability of administration in communicating with parents to elicit informed consent. Parental consent also introduced the limitation of selectivity bias as levels of student engagement in the sample were dependent on the variable of interest from parents who are more engaged with consenting to participate in program evaluation. Participation was high in faculty surveys and interviews, yet administrative participation was limited at School B to only one survey response. Despite this fact, limited survey participation from administration was still in line with national studies using the National Middle School Survey, as only one administrator from randomly selected schools and HSMSs completed the survey for their respective school (McEwin & Greene, 2011).

Recommendations

As the present study included three Protestant Christian schools, future research is recommended that uses a larger sample mirroring the population percentages of each type of Christian school (Catholic, Lutheran, Episcopal, and Conservative Protestant). Research is also recommended that compares levels of middle school concept implementation between samples of public, Christian, and nonparochial private schools, while considering the variables of middle school certification for faculty and

administrative certification for school leaders.

Future research is also recommended to compare levels of cognitive engagement and GLS between public and private school students, while considering a greater number of variables. While the present study considered only the variables of school and grade level, future research should consider demographic variables of students such as gender, race, ethnicity, marital status of parents, household income, and grade point average.

Summary

In accordance with the CIPP model of program evaluation, data from surveys and interviews of middle school administration, faculty, and students in three private Christian schools were collected and analyzed for the purpose of measuring implementation of the middle school concept. Administrative and faculty perceptions of middle school concept implementation along with student perceptions of engagement and life satisfaction indicated the ability of each private Christian school in meeting the unique needs of their adolescent student population. As the goal of the program evaluation was to assess program formation, training of faculty, middle school concept implementation, and the levels of student engagement and satisfaction, it was found that there were discernible differences in the processes and products of each middle school program.

Each of the three schools were found to be unique in the perceptions of administration and faculty with regard to training teachers and implementing a middle school concept yet were found to be similar in having generally high levels of student engagement and life satisfaction. Although each school was unable to provide documentation on the perceptions related to adolescent needs that led to the formation of a distinct middle school program, it was found that all three schools had a common goal

of providing a unique educational environment for what was unanimously considered a unique developmental stage of adolescence.

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Appendix A
National Middle School Survey

National Middle School Survey

This survey instrument has been used in multiple status studies of middle school programs and practices beginning in 1968 with the classic study conducted by middle school pioneer Dr. William M. Alexander and follow-up studies conducted in 1988, 1993, 2001, 2003, and most recently in 2008.

To the best of your knowledge, please complete each statement as it applies to your middle school program as a whole or your individual classes/subjects. Every effort has been made to make the survey easy to complete and respectful of your busy schedule. All results will be held in strict confidence with no individual names or school names revealed. Thank you for your assistance.

1. Please indicate your estimate of the percentage of core teachers (math, language arts, science, social studies) at your school who have had specific college or university professional preparation to teach at the middle level.

- ☐ 0-10% ☐ 11-20% ☐ 21-30% ☐ 31-40% ☐ 41-50%
☐ 51-60% ☐ 61-70% ☐ 71-80% ☐ 81-90% ☐ 91-100%
-

2. Please indicate your estimate of the percentage of core teachers (math, language arts, science, social studies) at your school who hold a separate middle level teacher certification/license, for example grades 5-8 rather than grades 7-12 or K-8.

- ☐ 0-10% ☐ 11-20% ☐ 21-30% ☐ 31-40% ☐ 41-50%
☐ 51-60% ☐ 61-70% ☐ 71-80% ☐ 81-90% ☐ 91-100%
-

3. How many minutes per day are the following subjects taught at your school? (If subjects are not taught daily and/or all year, please provide the average number of minutes they would be taught if they were taught daily. For example, if science is taught for one-half of the academic year for 90 minutes per day, the response would be 45 minutes).

	Sixth Grade	Seventh Grade	Eighth Grade
Language Arts	<input type="text"/>	<input type="text"/>	<input type="text"/>

Mathematics	<input type="text"/>	<input type="text"/>	<input type="text"/>
Science	<input type="text"/>	<input type="text"/>	<input type="text"/>
Social Studies	<input type="text"/>	<input type="text"/>	<input type="text"/>

4. Please indicate the extent to which the following teaching methods or strategies are used in your school.

	Rarely or Never	Occasionally	Regularly
Direct Instruction (teacher presentation, drill, practice)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cooperative Learning (structured group work)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Inquiry Teaching (gathering information, deriving conclusions)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Independent Study (working individually on selected or assigned tasks)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Online Instruction (using Internet-based assignments such as webquests, homework, research projects, Blackboard or Moodle, or virtual world environments such as Second Life)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. Which of the following subjects are required at each grade level at your school?

	Sixth Grade	Seventh Grade	Eighth Grade
Art	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Career Education	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Computers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Creative Writing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Family & Consumer Science	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Foreign Language	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
General Music	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Health	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Industrial Arts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Life Skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Physical Education	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reading	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Keyboarding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>


6. Are there subjects required at your school that are not listed? If so, please list them.

7. Which of the following subjects are electives at each grade level of your school?

	Sixth Grade	Seventh Grade	Eighth Grade
Art	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Band	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Career Education	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Chorus	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Computers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Creative Writing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Family & Consumer Science	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Foreign Language	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
General Music	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Health	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Industrial Arts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Journalism	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Life Skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Orchestra	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Physical Education	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reading	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Speech	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Keyboarding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

8. Are there subjects that are offered as electives at your school that are not listed? If so, please list them.



9. Does your school have an interest course/mini-course program (short term, student interest-centered courses sometimes called exploratory courses)?

- ☐ Yes ☐ No
-

10. Please indicate the nature of school-sponsored sports programs at your school.

- ☐ Interscholastic sports only
- ☐ Intramural sports only
- ☐ Interscholastic and intramural sports
-

11. Does your school have a teacher advisory (advisor-advisee) program?

- ☐ Yes ☐ No

12. If yes, how frequently do advisory groups meet at your school?

- ☐ Daily ☐ Four days per week ☐ Three days per week
- ☐ Two days per week ☐ One day per week
- ☐ Other, please specify

13. If yes, how many minutes per advisory session do groups meet?

- ☐ 1-10 ☐ 11-15 ☐ 16-20 ☐ 21-25 ☐ 26-30
- ☐ 31-35 ☐ 36-40 ☐ More than 40 minutes
-

14. Please indicate which, if any, of the following subject areas use ability grouping (tracking) at your school. Please check all that apply.

- ☐ Mathematics ☐ Language Arts ☐ Reading ☐ Science ☐ Social Studies
- ☐ None of these subjects
-

☐ Other, please specify

15. Please select the one statement below that best describes your school's operating policy regarding instructional grouping.

- ☐ Grouping is random (no tracking).
- ☐ Ability grouping (tracking) is used at all grade levels in all basic subjects.
- ☐ Ability grouping (tracking) is used at all grade levels, but restricted to certain subjects, for example reading.
- ☐ Ability grouping (tracking) is used only at certain grade levels, but in all basic subject areas, for example eighth grade.
- ☐ Ability grouping (tracking) is used at certain grades levels, but restricted to certain subjects, for example seventh grade mathematics.

16. Please indicate all remedial arrangements that are available to students at your school. Please check all that apply.

- ☐ No remedial arrangements provided
- ☐ Extra work or homework assigned by teachers
- ☐ Pull out program in English/language arts
- ☐ Pull out program in mathematics
- ☐ Extra period of time instead of elective or exploratory course
- ☐ Reduced time allocated to advisory program
- ☐ Tutoring during the school day
- ☐ Before or after-school classes or tutoring
- ☐ Saturday classes
- ☐ Summer school
- ☐ Other, please specify

17. Is your school organized into interdisciplinary teams?

- ☐ Yes ☐ No

18. If yes, please indicate how many individual and team common planning periods teachers on teams have.

- ☐ None ☐ 10 per week ☐ 9 per week ☐ 8 per week ☐ 7 per week
☐ 6 per week ☐ 5 per week ☐ 4 per week ☐ 3 per week ☐ 2 per week
☐ 1 per week

19. Which of the following best describes the type of schedule utilized at your school?

- ☐ Daily periods of uniform length ☐ Daily periods of varying lengths
☐ Flexible block schedule ☐ Self-Contained Classrooms
☐ Other, please specify

20. Which of the following resources for professional development are available to teachers at your school? Please check all that apply.

- ☐ Technology to collaborate with other educators online (discussion boards, email, synchronous chat/video conferencing, virtual learning environments, social networking communities)
☐ Online courses/workshops
☐ Professional electronic portfolios
☐ Technology to enhance productivity
☐ Personal Digital Assistants (Palm Pilot/Pocket PC, iTouch/iPhone)
☐ Online Gradebooks
☐ Desktop/Laptop computers

- ☐ Teacher Web Pages
- ☐ Other, please specify

21. Which of the following multi-media technologies and resources do teachers at your school incorporate into their teaching? Please check all that apply.

- ☐ Online research/online projects ☐ Technology to provide nontraditional forms of student assessment ☐ Assistive/adaptive devices to assist special needs students
- ☐ Computer Projection Devices (large screen TV monitors/LCD projectors)
- ☐ Digital Cameras ☐ HDTV Technology ☐ Printers ☐ Scanners
- ☐ SmartBoards ☐ Television ☐ TV Production (student generated)
- ☐ DVD Player ☐ VCR Player ☐ Amplified Audio System
- ☐ Video Conferencing ☐ Graphing Calculators ☐ i-Pods
- ☐ Flex Cam (Visual Presenter) ☐ Student Email ☐ Online Learning Environment
- ☐ Cell phone ☐ Personal Digital Assistants (Palm Pilot/Pocket PC, iTouch/iPhone)
- ☐ Other, please specify

22. What types of multi-media technologies do students at your school have access to during the school day? Please check all that apply.

- ☐ Word processing software ☐ Integrated learning systems ☐ Spreadsheets
- ☐ Games (tutorial and basic skills development)
- ☐ Special applications for reading, math, etc.
- ☐ Internet access ☐ Presentation software (e.g. PowerPoint)
- ☐ CD-ROMS/Encyclopedias ☐ Graphing calculators
- ☐ Probes for data acquisition (temperature, mass, etc.)
- ☐ Desktop publishing and design software ☐ Webcams
- ☐ Desktop/laptop computers ☐ Video/data projection ☐ Video editing software
- ☐ Visual presenters

- ☐ Personal Digital Assistants (Palm Pilot/Pocket PC, iTouch/iPhone)
- ☐ Social Networking (Facebook, Twitter, Myspace)
- ☐ Other, please specify

23. Please indicate the level of agreement you have for the statements below.

	Strongly Agree	Agree	Disagree	Strongly Disagree
Teachers at my school receive adequate professional development in the use of new and emerging technologies.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Adequate technical support is provided for teachers at my school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Teachers at my school receive adequate multi-media training.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Global Education (Global education includes learning about problems and issues that cut across national boundaries and about the interconnectedness of systems--cultural, ecological, economic, political and technological. It also involves learning to understand and appreciate our neighbors with different cultural backgrounds from ours; to see the world through the eyes and minds of others and to realize that other people of the world need and want much of the same things).

24. Please respond to the following statements that focus on global awareness.

	Strongly Agree	Agree	Disagree	Strongly Disagree
Teachers at my school promote global awareness by helping students develop an understanding of other cultures and diversity.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Deliberate efforts are made at my school to promote global awareness and	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

multiculturalism in the curriculum.

Teachers at my school are sufficiently supported and trained in 21st century and global content.

☐ ☐ ☐ ☐

My school has rigorous academic standards that help students prepare to succeed in a global society.

☐ ☐ ☐ ☐

25. Please indicate the level of emphasis placed on the following aspects of global education in your school curriculum.

	Highly Emphasized	Emphasized	Somewhat Emphasized	Not Emphasized
Critical thinking and problem solving	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Communication	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Creativity and innovations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Collaboration	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Science	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mathematics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Social justice/humanity/civic literacy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bilingual opportunity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Leadership	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Integration	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

26. Please indicate your opinion about the degree of importance of the following aspects of middle schools.





	Very Important	Important	Unimportant	Very Unimportant
Advisory Programs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Interdisciplinary Team Organization	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Flexible Scheduling and Grouping	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Strong focus on basic subjects (language arts, social studies, mathematics, science)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Educators who value working with young adolescents	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Inviting, supportive, and safe environments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Students and teachers engaged in active learning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
School initiated family and community partnerships	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Curriculum that is relevant, challenging, integrative, and exploratory	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Multiple learning and teaching approaches	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
School-wide efforts and policies that foster health, wellness, and safety	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Teachers who hold middle school/level teacher certification/licensure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Trusting and respectful relationships among administrators, teachers, students and parents	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Evidence-based decision making	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A shared vision of mission and goals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Assessment and evaluation programs that promote quality learning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

27. How would you rate the level of implementation for the following at your school?

	Highly Implemented	Implemented	Limited Implementation	Not Implemented
Advisory Programs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Interdisciplinary Team Organization	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Flexible Scheduling and Grouping	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Strong focus on basic subjects (language arts, social studies, mathematics, science)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Educators who value working with young	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

adolescents				
An inviting, supportive, and safe environment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Students and teachers engaged in active learning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
School initiated family and community partnerships	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Curriculum that is relevant, challenging, integrative, and exploratory	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Multiple learning and teaching approaches	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
School-wide efforts and policies that foster health, wellness, and safety	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Employment of teachers who hold specialized middle level certification/licensure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Trusting and respective relationships among administrators, teachers, students and parents	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Evidence-based decision making	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A shared vision of	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

mission and goals				
Assessment and evaluation programs that promote quality learning				

Appendix B
Student Engagement Instrument

Student Engagement Instrument (SEI)

	Strongly Disagree	Disagree	Strongly Agree	Agree
1. My family/guardian(s) are there for me when I need them.	1	2	3	4
2. After finishing my schoolwork I check it over to see if it's correct.	1	2	3	4
3. My teachers are there for me when I need them.	1	2	3	4
4. Other students here like me the way I am.	1	2	3	4
5. Adults at my school listen to the students.	1	2	3	4
6. Other students at school care about me.	1	2	3	4
7. Students at my school are there for me when I need them.	1	2	3	4
8. My education will create many future opportunities for me.	1	2	3	4
9. Most of what is important to know you learn in school.	1	2	3	4
10. The school rules are fair.	1	2	3	4
11. Going to school after high school is important.	1	2	3	4
12. When something good happens at school, my family/guardian(s) want to know about it.	1	2	3	4
13. Most teachers at my school are interested in me as a person, not just as a student.	1	2	3	4
14. Students here respect what I have to say.	1	2	3	4
15. When I do schoolwork I check to see whether I understand what I'm doing.	1	2	3	4
16. Overall, my teachers are open and honest with me.	1	2	3	4
17. I plan to continue my education following high school.	1	2	3	4
18. I'll learn, but only if the teacher gives me a reward.	1	2	3	4

	Strongly Disagree	Disagree	Strongly Agree	Agree
19. School is important for achieving my future goals.	1	2	3	4
20. When I have problems at school my family/guardian(s) are willing to help me.	1	2	3	4
21. Overall, adults at my school treat students fairly.	1	2	3	4
22. I enjoy talking to the teachers here.	1	2	3	4
23. I enjoy talking to the students here.	1	2	3	4
24. I have some friends at school.	1	2	3	4
25. When I do well in school it's because I work hard.	1	2	3	4
26. The tests in my classes do a good job of measuring what I'm able to do.	1	2	3	4
27. I feel safe at school.	1	2	3	4
28. I feel like I have a say about what happens to me at school.	1	2	3	4
29. My family/guardian(s) want me to keep trying when things are tough at school.	1	2	3	4
30. I am hopeful about my future.	1	2	3	4
31. At my school, teachers care about students.	1	2	3	4
32. I'll learn, but only if my family/guardian(s) give me a reward.	1	2	3	4
33. Learning is fun because I get better at something.	1	2	3	4
34. What I'm learning in my classes will be important in my future.	1	2	3	4
35. The grades in my classes do a good job of measuring what I'm able to do.	1	2	3	4

Appendix C

Multidimensional Students Life Satisfaction Scale

MULTIDIMENSIONAL STUDENTS LIFE SATISFACTION SCALE (MSLSS)

We would like to know what thoughts about life you've had during the past several weeks. Think about how you spend each day and night and then think about how your life has been during most of this time. Here are some questions that ask you to indicate your satisfaction with life. Circle the number (from 1 to 6) next to each statement that indicates the extent to which you agree or disagree with each statement. It is important to know what you REALLY think, so please answer the question the way you really feel, not how you think you should. This is NOT a test. There are NO right or wrong answers. Your answers will NOT affect your grades, and no one will be told your answers.

Circle 1 if you **STONGLY DISAGREE** with the statement
 Circle 2 if you **MODERATELY DISAGREE** with the statement
 Circle 3 if you **MILDLY DISAGREE** with the statement
 Circle 4 if you **MILDLY AGREE** with the statement
 Circle 5 if you **MODERATELY AGREE** with the statement
 Circle 6 if you **STRONGLY AGREE** with the statement

1. My friends are nice to me	1	2	3	4	5	6
2. I am fun to be around	1	2	3	4	5	6
3. I feel bad at school	1	2	3	4	5	6
4. I have a bad time with my friends	1	2	3	4	5	6
5. There are lots of things I can do well	1	2	3	4	5	6
6. I learn a lot at school	1	2	3	4	5	6
7. I like spending time with my parents	1	2	3	4	5	6
8. My family is better than most	1	2	3	4	5	6
9. There are many things about school I don't like	1	2	3	4	5	6
10. I think I am good looking	1	2	3	4	5	6
11. My friends are great	1	2	3	4	5	6
12. My friends will help me if I need it	1	2	3	4	5	6
13. I wish I didn't have to go to school	1	2	3	4	5	6
14. I like myself	1	2	3	4	5	6

15. There are lots of fun things to do where I live	1	2	3	4	5	6
16. My friends treat me well	1	2	3	4	5	6
17. Most people like me	1	2	3	4	5	6
18. I enjoy being at home with my family	1	2	3	4	5	6
19. My family gets along well together	1	2	3	4	5	6
20. I look forward to going to school	1	2	3	4	5	6
21. My parents treat me fairly	1	2	3	4	5	6
22. I like being in school	1	2	3	4	5	6
23. My friends are mean to me	1	2	3	4	5	6
24. I wish I had different friends	1	2	3	4	5	6
25. School is interesting	1	2	3	4	5	6
26. I enjoy school activities	1	2	3	4	5	6
27. I wish I lived in a different house	1	2	3	4	5	6
28. Members of my family talk nicely to one another	1	2	3	4	5	6
29. I have a lot of fun with my friends	1	2	3	4	5	6
30. My parents and I do fun things together	1	2	3	4	5	6
31. I like my neighborhood	1	2	3	4	5	6
32. I wish I lived somewhere else	1	2	3	4	5	6
33. I am a nice person	1	2	3	4	5	6
34. This town is filled with mean people	1	2	3	4	5	6
35. I like to try new things	1	2	3	4	5	6
36. My family's house is nice	1	2	3	4	5	6
37. I like my neighbors	1	2	3	4	5	6
38. I have enough friends	1	2	3	4	5	6

39. I wish there were different people in my neighborhood	1	2	3	4	5	6
40. I like where I live	1	2	3	4	5	6

Appendix D
Parent Consent Letter

Program Evaluation on the Implementation of a Middle School Concept in Private
Christian Schools

Dear Parents,

As a doctoral student at Gardner-Webb University, I am conducting program evaluation on the implementation of middle school concepts in several private Christian schools. Over the past fifteen years I have taught in Christian schools at the middle school level and am myself a product of Christian education, having attended a Christian school in Florida for twelve years. I am asking for your help in completing my dissertation as I study the ability of private schools to meet the unique needs of adolescents.

I am asking for your permission to have your child complete two anonymous surveys in class in January of 2015. As a part of the evaluation students will be asked to check responses relating to statements regarding their engagement with school and overall life satisfaction. Both surveys together should take approximately 15 minutes to complete and students will not be required to respond to any statements they are not comfortable answering. Each of the student surveys has been widely used in educational research and specifically used with adolescent populations.

The administration of your school has granted permission to conduct this evaluation as they believe the information is timely and would be useful in continuing to develop middle school programming. Once all data is collected and analyzed, a copy of the study's findings will be provided to the school. Again, all individuals will remain anonymous, and there are no known risks and/or discomforts associated with your child's participation in this study. Throughout this process, I am held accountable by the requirements of Gardner-Webb University's Institutional Review Board that insures all research is conducted ethically and to the established standards of professional practice.

If you and your child agree to have your child participate, both of you will need to sign the attached permission form and return them to your child's school by (date). Only students returning signed forms will be allowed to participate in the survey. If you have any questions regarding this study, please contact me at jhall4@gardner-webb.edu. I look forward to working with your school's administration and faculty to better understand how to meet the unique needs of adolescents in Christian school environments.

Sincerely,
James Hall
Doctoral Student, Gardner-Webb University
jhall4@gardner-webb.edu

PERMISSION FORM

I have been given the chance to read the parental consent letter and I understand the purpose of the study and intent for my child's participation. Questions that I wanted to ask about the study have been answered and my signature below indicates that I am willing for my child to participate.

Name of Student Participant (printed)

Participant Signature and Date

Name of Parent or Legal Guardian (printed)

Parent or Legal Guardian Signature and Date

Appendix E

Informational Handout for Student Survey Administration

Individuals administering student surveys will read the following information orally before allowing students to begin:

You will be surveyed today as part of a larger study that evaluates private Christian middle schools similar to yours and your participation in this formal evaluation is tremendously important. All middle school students of your school have been chosen to participate, but is limited to those whose parents have consented to have their child participate and returned the signed consent form by the required date.

The surveys you are about to be administered are designed to get a wide range of information on the many different aspects of your experience in middle school. The first survey, the *Student Engagement Instrument*, is intended to measure your commitment and interest in the areas of future goals and aspirations, control and relevance of school work, teacher-student relationships, peer support for learning, and family support for learning. The second survey, the *Multidimensional Student Life Satisfaction Survey*, is intended to provide a summary of your overall satisfaction with friends, school, living environment, and self.

Understand that this is not a test and your answers will not affect your grades. No one will know your answers as there is no identifying information on the survey, so please do not write your name on the survey instrument. It is very important for you to answer honestly, knowing that there are no right or wrong answers for survey responses. Your answers should be based upon how you generally feel in regards to each statement, not how you wish you felt, or are expected to feel by others. You do not have to respond to any statements that you are uncomfortable answering, simply leave that statement response blank. Please try to respond to all statements as the information gained from these surveys is intended to evaluate your school's ability in meeting students' needs and discover possible areas of strength and needed improvement.

After completing the surveys do not discuss individual responses with classmates or faculty members at any time as it is important to maintain the privacy of all who participated. Your individual answers will be completely anonymous and will not be given to any faculty member, administrator, or parent.

Thank you for participating and your time to assist in the evaluation of the middle school programming of your school is greatly appreciated.

Appendix F

Administrative Interview Protocol

Date:

School (identification code): X Y Z

Interviewee (identification number):

The purpose of this study is to conduct a program evaluation on the implementation of a middle school concept in private Christian schools. Perceptual data will be collected using surveys and interviews of faculty and administrators from each of three middle schools. Additionally, students will be surveyed to determine their perceptions regarding cognitive student engagement and global life satisfaction. The confidentiality of each interviewee and school will be protected by substituting each name with a designated number and letter code. No identifying information such as subjects taught, years of experience or position title will be included in either the written or oral record of each interview. The interview will take approximately 10-15 minutes and will be recorded digitally with the consent of each interviewee.

Questions:

1. What concepts or practices would you identify as the most essential components of your school's particular middle school program?

2. Has sufficient opportunity been provided to teachers to receive training in implementing the essential components of the middle school program? (Provide an example.)

3. How are new teachers inducted into program practices of your middle school?

4. Who has input into the topics, planning and delivery of professional development in your middle school? (Provide an example.)

5. Is there a plan or procedure in place to insure regular assessment of the current middle school program? (If so, describe program assessment practices.)

6. Describe how current guidance and support services meet the developmental needs of your middle school students.

Appendix G
Faculty Interview Protocol

Date:

School (identification code): X Y Z

Interviewee (identification number):

The purpose of this study is to conduct a program evaluation on the implementation of a middle school concept in private Christian schools. Perceptual data will be collected using surveys and interviews of faculty and administrators from each of three middle schools. Additionally, students will be surveyed to determine their perceptions regarding cognitive student engagement and global life satisfaction. The confidentiality of each interviewee and school will be protected by substituting each name with a designated number and letter code. No identifying information such as subjects taught, years of experience or position title will be included in either the written or oral record of each interview. The interview will take approximately 10-15 minutes and will be recorded digitally with the consent of each interviewee.

Questions:

1. What concepts or practices would you identify as the most essential components of your school's particular middle school program?

2. Have you had sufficient opportunity to receive training in implementing the essential components of the middle school program? (Provide an example.)

3. Did the teachers in your building have ample opportunity to have questions or concerns addressed during training and implementation of middle school program components? (Provide an example.)

4. How are new teachers inducted into program practices of your middle school?

5. Would you consider the culture of your middle school one of collaboration, where the input of faculty members are solicited and valued? (Provide an example.)

6. Does the middle school leadership team regularly evaluate current practices and work to change them if they are not in the best interests of students? (Provide an example.)

7. Describe how comprehensive guidance and support services meet the developmental needs of your middle school students.

Appendix H

Student Engagement Instrument Subscale Item Means

Table H1

School Response for Teacher/Student Relationship Subscale Items

	School A		School B		School C	
	<i>M</i> (<i>SE</i>)	<i>SD</i>	<i>M</i> (<i>SE</i>)	<i>SD</i>	<i>M</i> (<i>SE</i>)	<i>SD</i>
My teachers are there for me when I need them.	3.24 (.08)	.65	3.31 (.07)	.74	3.36 (.08)	.57
Adults at my school listen to the students.	3.25 (.10)	.81	3.13 (.07)	.74	3.21 (.10)	.66
The school rules are fair.	3.09 (.09)	.79	2.75 (.09)	.90	2.94 (.13)	.87
Most teachers at my school are interested in me as a person, not just as a student.	3.16 (.08)	.67	2.89 (.08)	.86	2.76 (.12)	.82
Overall, my teachers are open and honest with me.	3.24 (.09)	.73	3.26 (.08)	.77	3.28 (.10)	.66
Overall, adults at my school treat students fairly.	3.19 (.08)	.69	3.14 (.08)	.78	3.17 (.10)	.67
I enjoy talking to the teachers here.	3.13 (.08)	.69	3.15 (.08)	.78	3.17 (.11)	.77
I feel safe at school.	3.63 (.07)	.57	3.45 (.07)	.72	3.17 (.11)	.73
At my school, teachers care about students.	3.57 (.07)	.55	3.44 (.07)	.70	3.52 (.09)	.59

Note: 4-point Likert scale used (4=Strongly Agree, 3=Agree, 2=Disagree, 1=Strongly Disagree).

Table H2

School Response for Peer Support Subscale Items

	School A		School B		School C	
	<i>M</i> (<i>SE</i>)	<i>SD</i>	<i>M</i> (<i>SE</i>)	<i>SD</i>	<i>M</i> (<i>SE</i>)	<i>SD</i>
Other students here like me the way I am.	3.24 (.08)	.67	3.06 (.08)	.86	3.07 (.10)	.71
Other students at school care about me.	3.30 (.08)	.63	3.06 (.09)	.89	3.11 (.09)	.63
Students at my school are there for me when I need them.	3.19 (.08)	.64	3.14 (.08)	.86	2.98 (.12)	.83
Students here respect what I have to say.	2.80 (.08)	.68	2.65 (.10)	.92	2.55 (.12)	.83
I enjoy talking to the students here.	3.56 (.08)	.63	3.49 (.07)	.70	3.43 (.09)	.65
I have some friends at school.	3.74 (.06)	.50	3.69 (.06)	.58	3.57 (.08)	.54

Note: 4-point Likert scale used (4=Strongly Agree, 3=Agree, 2=Disagree, 1=Strongly Disagree).

Table H3

School Response for Family Support Subscale Items

	School A		School B		School C	
	<i>M</i> (<i>SE</i>)	<i>SD</i>	<i>M</i> (<i>SE</i>)	<i>SD</i>	<i>M</i> (<i>SE</i>)	<i>SD</i>
My family/guardian(s) are there for me when I need them.	3.79 (.05)	.41	3.65 (.05)	.52	3.60 (.08)	.58
When something good happens at school, my family/guardian(s) want to know about it.	3.66 (.08)	.63	3.46 (.07)	.72	3.32 (.11)	.78
When I have problems at school my family/guardian(s) are willing to help me.	3.70 (.06)	.46	3.55 (.06)	.66	3.57 (.08)	.58
My family/guardian(s) want me to keep trying when things are tough at school.	3.71 (.05)	.46	3.72 (.05)	.47	3.62 (.07)	.49

Note: 4-point Likert scale used (4=Strongly Agree, 3=Agree, 2=Disagree, 1=Strongly Disagree).

Table H4

School Response for Control and Relevance of Schoolwork Subscale Items

	School A		School B		School C	
	<i>M</i> (<i>SE</i>)	<i>SD</i>	<i>M</i> (<i>SE</i>)	<i>SD</i>	<i>M</i> (<i>SE</i>)	<i>SD</i>
After finishing my schoolwork I check it over to see if it's correct.	2.60 (.10)	.84	2.57 (.07)	.72	2.72 (.11)	.74
Most of what is important to know you learn in school.	2.96 (.09)	.75	3.18 (.07)	.73	3.31 (.11)	.74
When I do schoolwork I check to see whether I understand what I'm doing.	3.27 (.07)	.59	3.25 (.06)	.65	3.20 (.11)	.78
When I do well in school it's because I work hard.	3.44 (.08)	.65	3.49 (.06)	.61	3.51 (.09)	.59
The tests in my classes do a good job of measuring what I'm able to do.	3.03 (.10)	.82	3.08 (.08)	.84	3.15 (.10)	.66
I feel like I have a say about what happens to me at school.	2.74 (.09)	.72	2.81 (.10)	.96	2.68 (.14)	.96
Learning is fun because I get better at something.	2.74 (.10)	.80	2.85 (.09)	.87	2.75 (.13)	.87
What I'm learning in my classes will be important in my future.	3.30 (.08)	.69	3.49 (.07)	.74	3.21 (.13)	.91
The grades in my classes do a good job of measuring what I'm able to do.	3.10 (.10)	.82	3.16 (.08)	.83	3.09 (.13)	.90

Note: 4-point Likert scale used (4=Strongly Agree, 3=Agree, 2=Disagree, 1=Strongly Disagree).

Table H5

School Response for Future Aspirations Subscale Items

	School A		School B		School C	
	<i>M</i> (<i>SE</i>)	<i>SD</i>	<i>M</i> (<i>SE</i>)	<i>SD</i>	<i>M</i> (<i>SE</i>)	<i>SD</i>
My education will create many future opportunities for me.	3.81 (.05)	.43	3.70 (.05)	.52	3.57 (.09)	.62
Going to school after high school is important.	3.80 (.06)	.47	3.70 (.05)	.52	3.72 (.07)	.50
I plan to continue my education following high school.	3.86 (.05)	.39	3.79 (.04)	.46	3.74 (.08)	.57
School is important for achieving my future goals.	3.68 (.08)	.63	3.70 (.05)	.55	3.62 (.09)	.61
I am hopeful about my future.	3.75 (.07)	.55	3.71 (.05)	.52	3.67 (.08)	.56

Note: 4-point Likert scale used (4=Strongly Agree, 3=Agree, 2=Disagree, 1=Strongly Disagree).

Table H6

School Response for Extrinsic Motivation Subscale Items

	School A		School B		School C	
	<i>M</i> (<i>SE</i>)	<i>SD</i>	<i>M</i> (<i>SE</i>)	<i>SD</i>	<i>M</i> (<i>SE</i>)	<i>SD</i>
I'll learn, but only if the teacher gives me a reward. ^a	3.67 (.07)	.56	3.63 (.06)	.61	3.60 (.08)	.54
I'll learn, but only if my family/guardian(s) give me a reward. ^a	3.67 (.07)	.56	3.62 (.07)	.66	3.62 (.09)	.61

Note: 4-point Likert scale used (4=Strongly Agree, 3=Agree, 2=Disagree, 1=Strongly Disagree).

Appendix I

Multidimensional Student Life Satisfaction Survey Subscale Item Means

Table 1I

School Response for School Satisfaction Subscale Items

	School A		School B		School C	
	<i>M</i> (<i>SE</i>)	<i>SD</i>	<i>M</i> (<i>SE</i>)	<i>SD</i>	<i>M</i> (<i>SE</i>)	<i>SD</i>
I feel bad at school ^a	4.93 (.16)	1.35	4.59 (.16)	1.55	4.63 (.17)	1.14
I learn a lot at school	5.04 (.12)	1.01	5.18 (.10)	0.99	4.94 (.16)	1.09
There are many things about school I don't like ^a	3.63 (.18)	1.48	3.27 (.17)	1.68	3.30 (.25)	1.68
I wish I didn't have to go to school ^a	3.87 (.19)	1.59	3.62 (.19)	1.88	3.74 (.27)	1.84
I look forward to going to school	3.77 (.18)	1.48	3.95 (.15)	1.51	3.74 (.21)	1.44
I like being in school	4.06 (.17)	1.38	4.12 (.14)	1.44	3.85 (.23)	1.56
School is interesting	4.29 (.14)	1.13	4.22 (.13)	1.34	3.83 (.24)	1.63
I enjoy school activities	4.59 (.14)	1.21	4.88 (.12)	1.23	4.13 (.22)	1.54

Note: 6 point Likert scale used (6=Strongly Agree, 5=Moderately Agree, 4=Mildly Agree, 3=Mildly Disagree, 2=Moderately Disagree, 1=Strongly Disagree).

^a Reverse keyed.

Table I2

School Response for Family Satisfaction Subscale Items

	School A		School B		School C	
	<i>M</i> (<i>SE</i>)	<i>SD</i>	<i>M</i> (<i>SE</i>)	<i>SD</i>	<i>M</i> (<i>SE</i>)	<i>SD</i>
I like spending time with my parents	5.21 (.14)	1.14	5.07 (.13)	1.29	5.06 (.19)	1.28
My family is better than most	4.99 (.15)	1.25	4.90 (.13)	1.25	4.62 (.20)	1.32
I enjoy being at home with my family	5.10 (.13)	1.05	5.12 (.12)	1.21	5.15 (.17)	1.14
My family gets along well together	4.97 (.15)	1.23	4.72 (.13)	1.32	4.57 (.23)	1.54
My parents treat me fairly	5.43 (.13)	1.10	5.16 (.12)	1.25	5.23 (.14)	0.96
Members of my family talk nicely to one another	4.67 (.15)	1.24	4.68 (.14)	1.40	4.33 (.20)	1.33
My parents and I do fun things together	5.01 (.13)	1.06	5.00 (.12)	1.21	4.89 (.19)	1.32

Note: 6 point Likert scale used (6=Strongly Agree, 5=Moderately Agree, 4=Mildly Agree, 3=Mildly Disagree, 2=Moderately Disagree, 1=Strongly Disagree).

^a Reverse keyed.

Table I3

School Response for Friends Satisfaction Subscale Items

	School A		School B		School C	
	<i>M</i> (<i>SE</i>)	<i>SD</i>	<i>M</i> (<i>SE</i>)	<i>SD</i>	<i>M</i> (<i>SE</i>)	<i>SD</i>
My friends are nice to me	5.14 (.09)	0.75	5.08 (.11)	1.11	4.77 (.15)	1.00
I have a bad time with my friends ^a	5.40 (.15)	1.26	5.34 (.11)	1.07	5.20 (.19)	1.25
My friends are great	5.29 (.11)	0.89	5.48 (.09)	0.87	4.83 (.16)	1.06
My friends will help me if I need it	5.10 (.12)	1.01	5.09 (.12)	1.22	4.77 (.16)	1.07
My friends treat me well	5.11 (.09)	0.77	5.11 (.11)	1.07	4.79 (.16)	1.12
My friends are mean to me ^a	5.33 (.13)	1.08	5.19 (.12)	1.22	4.70 (.18)	1.27
I wish I had different friends ^a	5.43 (.14)	1.17	5.23 (.14)	1.46	5.09 (.21)	1.44
I have a lot of fun with my friends	5.57 (.09)	0.79	5.50 (.08)	0.86	5.11 (.14)	0.97
I have enough friends	4.93 (.17)	1.41	4.56 (.16)	1.60	4.23 (.24)	1.64

Note: 6 point Likert scale used (6=Strongly Agree, 5=Moderately Agree, 4=Mildly Agree, 3=Mildly Disagree, 2=Moderately Disagree, 1=Strongly Disagree).

^a Reverse keyed.

Table I4

School Response for Living Environment Satisfaction Subscale Items

	School A		School B		School C	
	<i>M</i> (<i>SE</i>)	<i>SD</i>	<i>M</i> (<i>SE</i>)	<i>SD</i>	<i>M</i> (<i>SE</i>)	<i>SD</i>
There are lots of fun things to do where I live	4.89 (.16)	1.35	4.74 (.14)	1.39	4.34 (.21)	1.46
I wish I lived in a different house ^a	4.89 (.18)	1.51	4.25 (.19)	1.90	4.57 (.25)	1.73
I like my neighborhood	4.90 (.17)	1.42	4.57 (.16)	1.63	4.51 (.20)	1.35
I wish I lived somewhere else ^a	4.66 (.19)	1.57	4.38 (.19)	1.94	4.36 (.26)	1.81
This town is filled with mean people ^a	5.11 (.15)	1.25	4.87 (.15)	1.53	4.39 (.22)	1.53
My family's house is nice	5.27 (.13)	1.06	4.95 (.12)	1.24	4.85 (.17)	1.14
I like my neighbors	4.77 (.17)	1.37	4.59 (.16)	1.57	4.07 (.24)	1.65
I wish there were different people in my neighborhood ^a	3.55 (.21)	1.75	3.91 (.18)	1.77	3.51 (.26)	1.79
I like where I live	5.09 (.15)	1.24	4.99 (.14)	1.44	5.00 (.20)	1.35

Note: 6 point Likert scale used (6=Strongly Agree, 5=Moderately Agree, 4=Mildly Agree, 3=Mildly Disagree, 2=Moderately Disagree, 1=Strongly Disagree).

^a Reverse keyed.

Table I5

School Response for Self Satisfaction Subscale Items

	School A		School B		School C	
	<i>M</i> (<i>SE</i>)	<i>SD</i>	<i>M</i> (<i>SE</i>)	<i>SD</i>	<i>M</i> (<i>SE</i>)	<i>SD</i>
I am fun to be around	5.13 (.09)	0.75	5.08 (.08)	0.84	4.87 (.18)	1.24
There are lots of things I can do well	5.30 (.08)	0.69	5.13 (.09)	0.94	5.09 (.15)	1.00
I think I am good looking	4.25 (.17)	1.39	4.14 (.14)	1.43	4.42 (.18)	1.20
I like myself	4.86 (.17)	1.42	4.69 (.14)	1.38	5.13 (.16)	1.06
Most people like me	4.85 (.14)	1.19	4.52 (.14)	1.40	4.72 (.17)	1.13
I am a nice person	5.28 (.07)	0.59	5.13 (.08)	0.85	5.00 (.12)	0.84
I like to try new things	4.80 (.15)	1.23	4.84 (.13)	1.37	4.57 (.19)	1.31

Note: 6 point Likert scale used (6=Strongly Agree, 5=Moderately Agree, 4=Mildly Agree, 3=Mildly Disagree, 2=Moderately Disagree, 1=Strongly Disagree).

^a Reverse keyed.