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Factors Predicting the Satisfaction of 12th Grade Students in Christian Schools

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FACTORS PREDICTING THE SATISFACTION OF 12TH GRADE
STUDENTS IN CHRISTIAN SCHOOLS

by

Darren Mathews

Dissertation

Submitted to the Faculty of

Harding University

Cannon-Clary College of Education

in Partial Fulfillment of the Requirements for

the Degree of

Doctor of Education

in

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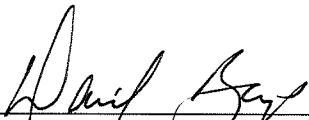
March 2014

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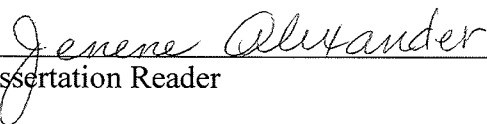
Darren Mathews

Dissertation



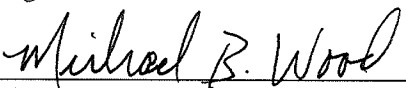
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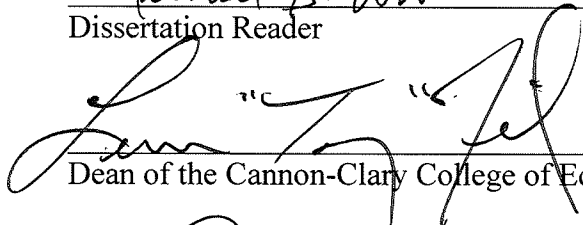
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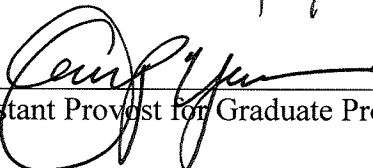
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ABSTRACT

by
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May 2014

Title: Factors Predicting the Satisfaction of 12th Grade Students in Christian Schools
(Under the direction of Dr. David Bangs)

The purpose of this study was to determine if any predictive effects existed between gender, religious affiliation (church of Christ versus non-church of Christ), academic achievement measured by GPA, longevity measured by years, and college readiness measured by ACT composite scores on academic, social, faculty, and spiritual satisfaction for 12th grade students in four private, Christian schools in Arkansas. This study determined the accuracy of predictor variables in explaining the criterion variables. It also provided an indicator of the percentage of variance on the criterion variables explained by predictor variables and showed how well they explained the variance. It was discovered that gender and religious affiliation were notable predictor variables compared to GPA, longevity, and ACT scores.

A quantitative, nonexperimental, strategy using regression analysis was used in this study of students in four private, Christian schools in Arkansas associated with the churches of Christ. Twelfth grade students in these four schools who had taken the High School Satisfaction Questionnaire in the Spring of 2013 comprised the sample for this

study. This sample included 183 students, both male and female—primarily Caucasian—from rural and urban areas across Arkansas.

Gender, religious affiliation, academic achievement measured by GPA, longevity measured by years, and college readiness measured by ACT composite scores served as independent variables. The measure of satisfaction expressed was academic, social, faculty, and spiritual which represented the dependent variables. Although the overall model significantly predicted academic, social, and spiritual satisfaction, it did not significantly predict faculty satisfaction.

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CHAPTER I

INTRODUCTION

Academic achievement of children in school has traditionally been placed at the forefront of education. Success in academic achievement is crucial for a bright future and brings continual opportunities for attainment in a learner's life. While emphasis has been placed on academic achievement, a key role in contributing to students' achievements is their satisfaction with the educational institution.

During recent decades, various studies were conducted to find predictors of effective schools. Analyses were done by measuring students' academic achievement (Samdal, Wold, & Bronis, 1999). Ding and Hall (2006) noted that few of these studies investigated the correlation between student satisfaction and their academic performance. No documented studies actually tried to determine the predictive effects of gender, religious affiliation (church of Christ versus non-church of Christ), academic achievement measured by grade point average (GPA), longevity measured by years, and college readiness measured by ACT composite scores on overall academic, social, faculty, and spiritual satisfaction of high school 12th grade students.

For an organization or educational institution to be successful it must satisfy customers. In education the customer is the student. Whether the student attends a public or private school, student satisfaction is critical for sustainability of that institution. This multiple regression study compared variables and looked for an apparent connection

between self-reported data of gender, religious affiliation (church of Christ versus non-church of Christ), academic achievement measured by GPA, longevity measured by years, and college readiness measured by ACT composite scores with different values in multiple groups of satisfaction data.

GPA

Although students learn many things in the classroom, the primary objective is for students to learn academic content knowledge of a particular subject. In order for teachers, parents, and students to know if this is being achieved in the classroom, assessments in some form are required. Grades, in the letter or numerical form, are one of many tools used to measure academic achievement of classroom learning. They can measure results of a students' performance regarding content knowledge in a particular class or a cumulative high school GPA can communicate an overall level of the student's academic achievement during a 4-year career in Grades 9 through 12 (Allen, 2005).

Longevity

Longevity, as the number of years a student has attended a specific school, is a variable investigated in this study. Many times, student mobility, the counter to longevity is discussed as a great risk to student learning. Numerous studies have examined the negative impact of elementary and high school students moving from one school to another for reasons other than being promoted to the next level (Walls, 2003). It is not just a problem with the younger children, colleges and universities across the United States deal with an immense problem of student retention. A student who is considered an adult in higher education will experience different reasons for mobility compared to the children in secondary education. No matter the age of the student the institution is

trying to educate, educational institutions find it important to study strategies, which increase student retention. While there are various reasons for student mobility, researchers agree, the more a student changes learning environments, the more it impairs the student's chances for academic achievement.

Researchers have found the most effective strategy for retention of students is to improve the quality of the school. By improving the efficiency, effectiveness, and value of education that the students are receiving, the students will be more likely to experience satisfaction with their learning environment (Rumberger, 2002).

ACT

According to the ACT organization (2011), all 4-year colleges and universities in the United States accept the ACT achievement test. The ACT test has been identified to measure what students have learned in their high school courses of English, mathematics, reading, and science. The organization has also determined readiness standards that serve as tools to inform the test taker of their abilities along with supplying higher learning institutions with pertinent information regarding if the individual is ready to learn at the next level.

Satisfaction

Studies suggested that learning occurs through cooperative interaction with others in the learning population, and a significant relationship has been found between attitudes toward school and overall academic success (Ding & Hall, 2006). Schools are correct to concentrate on academic achievement for children, but they should not overlook satisfaction as a key element for students and stakeholders. Student satisfaction in the

public schools is critical, but in the private schools it is preeminent for sustainability of the institution that provides an optional education.

Statement of the Problem

The purposes of the study were four-fold. First, the purpose of this study was to determine the predictive effects of gender, religious affiliation (church of Christ versus non-church of Christ), academic achievement measured by GPA, longevity measured by years, and college readiness measured by ACT composite scores on academic satisfaction for 12th grade students in four private, Christian schools in Arkansas. Second, the purpose of this study was to determine the predictive effects of gender, religious affiliation (church of Christ versus non-church of Christ), academic achievement measured by GPA, longevity measured by years, and college readiness measured by ACT composite scores on social satisfaction for 12th grade students in four private, Christian schools in Arkansas. Third, the purpose of this study was to determine the predictive effects of gender, religious affiliation (church of Christ versus non-church of Christ), academic achievement measured by GPA, longevity measured by years, and college readiness measured by ACT composite scores on faculty satisfaction for 12th grade students in four private, Christian schools in Arkansas. Fourth, the purpose of this study was to determine the predictive effects of gender, religious affiliation (church of Christ versus non-church of Christ), academic achievement measured by GPA, longevity measured by years, and college readiness measured by ACT composite scores on spiritual satisfaction for 12th grade students in four private, Christian schools in Arkansas.

Background

Research has shown that half the adults in the United States are dissatisfied with their present jobs and that 1 in 5 workers plan to leave their jobs within the coming year (Career Vision, 2010). A worker's satisfaction with his or her job can result in increased productivity at the job and retention of workers for the employer. Samdal, Wold, and Bronis (1999) noted that a school can be considered as the students' work environment, and it is reasonable to assume that knowledge from research data about the adults and the satisfaction they receive from their work environment can be transferred to students' satisfaction at school. Samdal et al. mentioned that common ground could be found in both environments but conceded that there were differences also. The most noticeable difference is that an employee is paid to do the job, and a student does not receive this type of compensation.

Student Satisfaction

Student satisfaction is a major concern to colleges and universities across the nation because of the simple fact of retention. If these institutions are losing students because of dissatisfaction with the academic or social environment in the institution, then the institution will soon have to close its doors if it does not identify and correct the problem (Aldosary, 1999). Ding and Hall (2007) suggested that students' attitudes and feelings about their learning environment may play a role in how long they stay in school, how much they learn while they are attending school, and whether or not they succeed after they graduate. The research showed that, when students receive encouragement from their teachers, students and teachers display enthusiasm in the classroom; and when the students receive genuine care and interest from their teachers, then students have a

high degree of satisfaction with their academic environment (Weckman, 1999).

Educational leaders must address the students' negative perceptions so they can provide better opportunities to achieve success. Like the satisfaction research in the adult work environment, satisfaction research in the college student can be transferred to the secondary level of education with some limitations. The greatest limitation is that college students can choose the institution that they attend; and high school students, to some degree, cannot.

Efforts are being made to develop research and survey instruments to measure student satisfaction at the secondary level. The most extensive efforts are taking place at Indiana University, which is working on the *High School Survey of Student Engagement* (Ding & Hall, 2007). Chen and Lu (2009) reported:

Academic achievement consistently has been found to play an important role in students' general happiness. Kirkcaldy, Furnhum, and Siefen (2004) investigated the relation between educational performance in reading, mathematical, and scientific literacy as assessed in the Programme for International Student Assessment (PISA) survey. They found a positive relation between satisfaction, as measured by Veenhooven's scale, and the three literacy scores. (p. 980)

These types of instruments are avenues to bring about additional data to make informed decisions so education can continue to improve for the student.

Academic Achievement

Academic achievement can be communicated by various means. There is no one agreed upon measure of academic achievement. Measures have included end of course grades, GPAs, graduation, teacher ratings, and special awards or honors (Camara &

Echternacht, 2000). The common measure for academic achievement in secondary schools and higher education institutions is a student's GPA—a body of work, calculated by dividing the total number of grade points received by the total number attempted. Assigning grades to students is a complex issue. Assuming there have been valid assessments during the length of a course, then the final course grade should communicate a summary of the truth about the student's academic achievement in that subject (Allen, 2005).

Students understand that keeping their grades up can be vital to their academic and occupational success. It has been researched that grades are used as a motivational tool, as well as to develop good study habits (Allen, 2005). With high grades, students receive awards, scholarships, and admittance to colleges of their choice. ACT research reports that academic achievement in high school is a strong predictor of reaching a college degree (ACT, 2007). Schlinsog (2010) also noted significant predictors of academic achievement for students after the first year of college were their high school GPA and ACT scores. Lee's (2007) research also used a student's GPA to measure academic achievement. Neglecting their grades could place students on academic probation, attend programs for credit recovery, lose scholarships, and create a feeling of failure that could result in dropping out of school all together. Morsch (2007) added that poor grades may also reduce the chance for employment. With competition for jobs and all factors being equal an employer is more likely to choose the candidate with higher grades; and some advisers say that if there is no GPA on a resume, they automatically assume it is below 3.0 and move to the next candidate.

Educational leaders who strive for successful student achievement commit themselves to proven strategies that correlate with effective schools. Educational researchers like Marzano, Reeves, and Blanchard examined data over many years to find factors that positively affect student achievement. Characteristics like agreed upon vision, instructional leadership, safe environment, family and school partnerships, and timely monitoring of student progress were shared by schools that produced high student achievement (Wilson, 2011). As stated before, measuring student achievement occurs in various ways. Over the years, the assessment criteria for identifying an institution as a *high performing school* have changed and evolved. Student grades, GPA, and testing have been some of the avenues for assessment in these effective schools.

Student Mobility

A student moving from one school to another for reasons other than promotion to the next grade level is called *student mobility*—a widespread problem in the educational system today. Many educators believe this problem is inevitable because of the sociodemographic characteristics of our culture (Rumberger, 2002).

Researchers have found that the increased mobility of students influences student achievement in a negative way. Wood (1993) found that frequent family relocation was associated with an increased risk of students failing a grade in school. Educational leaders have tried to better educate students and parents about the possible challenges that can result from changing schools.

Some student mobility is beyond the schools control, but research has also been conducted and results found that between 30% and 40% of school changes are not associated with moving residences (Rumberger, 2002). Many students leave because the

institution has failed to create an environment both inside and outside the classroom encouraging successful student performance. Educational leaders must realize that improving the overall quality of the school system can dramatically reduce the school systems mobility rate (Kau, 2003). Research shows student longevity establishes students that are engage with their schools, participate in more co-curricular activities, and have a stronger overall academic performance (Pribesh & Downey, 1999).

College Readiness

In the state of Arkansas and many other states in the nation, college readiness has been associated with ACT scores. Students going to Arkansas colleges and universities must score a 19 on the ACT subtest of mathematics and English to avoid mandatory remedial classes. According to ACT Inc. (2010), 73% of Arkansas students in the class of 2009 took the ACT.

The ACT (2011) program publishes data that shows more than 70% of colleges and universities consider ACT test scores a significant factor in college admissions and readiness. College preparatory classes that are taken in high school are positively correlated with high ACT test scores. The ACT program has identified courses that contribute most to college readiness and considers them the minimum college preparatory curriculum. States across the nation, including Arkansas, are implementing this curriculum as graduation standards for students.

If ACT scores are going to be linked by high schools and universities as a measurement for college readiness in high school students, then using the results from student academic, social, faculty, and spiritual satisfaction inventories and comparing them to the outcome of ACT scores could be a valuable tool for high schools. This

specific study in the relationship of grade-point average, student mobility, and ACT scores with student satisfaction will be new, but there have been studies done on the relationship of the ACT and intelligence (Phillippi, 1992).

According to the National Association of Secondary School Principals (2010), there is a growing movement in the political spectrum that more students than ever before must graduate from high school prepared to enter and meet the high standards of higher education. Yet according to ACT Inc. in 2009, a large majority of high school graduates still cannot show college readiness in English, writing, reading, math, and science. Discovering the keys to unlock the learning barriers for students could be in the satisfaction they show towards their learning institution.

Religious Affiliation

Churches of Christ are autonomous Christian fellowships associated with one another through common beliefs and practices. The modern churches of Christ have their roots in the Restoration Movement. Participants in this movement seek to base their practices on the Bible alone, and pursue to be New Testament congregations as originally established by the authority of Christ. Churches of Christ believe that the New Testament expresses how a person may become a Christian and how a church should be collectively organized and carry out its scriptural purposes. The churches of Christ comprise about 5,062,074 members in over 40,000 individual congregations worldwide. In the United States, there are approximately 15,000 individual congregations with a total membership of 2 million people (Baxter, 2012). Members of the churches of Christ organize and sponsor colleges, universities, secondary and elementary schools across the nation and globally as well as many orphanages and homes for the elderly. The churches

of Christ make up the second largest religious fellowship in Arkansas. Congregations of the churches of Christ can be found in all 75 counties in the state of Arkansas. There are four church of Christ sponsored private secondary schools in the state of Arkansas (Haynie, 2012).

Hypotheses

The initial review of the literature suggested that a consistent pattern exists showing that the higher the students' satisfaction with school, the better their academic achievements (Samdal et al., 1999). Although data specifically related to determining the predictive effects of gender, religious affiliation (church of Christ versus non-church of Christ), academic achievement measured by GPA, longevity measured by years, and college readiness measured by ACT composite scores on overall academic, social, faculty, and spiritual satisfaction of high school 12th grade students were insufficient, this researcher felt that the positive conclusions of high academic achievement, high ACT scores and reduced student mobility could correlate to better student satisfaction with their learning institutions. Therefore, the researcher generated the following null hypotheses.

1. No predictive effects will exist between gender, religious affiliation (church of Christ versus non-church of Christ), academic achievement measured by GPA, longevity measured by years, and college readiness measured by ACT composite scores on academic satisfaction for 12th grade students in four private, Christian schools in Arkansas.
2. No predictive effects will exist between gender, religious affiliation (church of Christ versus non-church of Christ), academic achievement

measured by GPA, longevity measured by years, and college readiness measured by ACT composite scores on social satisfaction for 12th-grade students in four private, Christian schools in Arkansas.

3. No predictive effects will exist between gender, religious affiliation (church of Christ versus non-church of Christ), academic achievement measured by GPA, longevity measured by years, and college readiness measured by ACT composite scores on faculty satisfaction for 12th-grade students in four private, Christian schools in Arkansas.
4. No predictive effects will exist between gender, religious affiliation (church of Christ versus non-church of Christ), academic achievement measured by GPA, longevity measured by years, and college readiness measured by ACT composite scores on spiritual satisfaction for 12th-grade students in four private, Christian schools in Arkansas.

Description of Terms

Achievement. Collins English dictionary defined achievement as something accomplished successfully, especially by means of effort, skill, practice, or perseverance.

ACT. Hebert (2007) described the American College Testing (ACT) program as a testing assessment that was introduced in the late 1950s. The ACT is arranged into four multiple-choice tests, with an optional fifth writing essay. The first section is reserved for English, focusing on mechanics and language skills. The mathematics test focuses on beginning algebra skills through more advanced trigonometry. The reading section asks questions related to arts and literature, and finally, the science section deals with evaluation and problem solving.

College readiness. The nation has an ambitious goal in K-12 education, which is to graduate all students college ready. Students are ready to enter higher education when they have the knowledge, skills, and behaviors needed to achieve successful completion of a college course without remediation. The ACT program has established benchmarks that serve as a direct link between what students have learned and what they are ready to learn next. ACT (2012) reports its benchmarks are linked to college instruction, “more than 40 years of research has shown that performance on the ACT is directly related to first-year college grade point average” (para.5). The ACT conducts extensive research with colleges to ensure its standards are aligned with higher education curriculum.

Grade-point average (GPA). In the educational system, teachers within a subject area use grades in the forms of letters and numbers to measure various levels of students’ comprehension. The GPA is calculated by taking the number of grade points a student has earned over the course of a semester, year, or academic career and dividing it by the total number of credits taken.

Longevity. Longevity is described as a length of time. For this research, it will refer to a student’s length of time attending a particular educational institution. Student mobility is the opposing term of student longevity. Rumberger (2002) defined student mobility as a student moving from one school to another for reasons other than being promoted to the next grade level.

Student satisfaction. Hallenbeck (1978) defined student satisfaction as a gauge of the institutional effectiveness and success. Student satisfaction is the state felt by a student who has experienced a performance or outcome that has fulfilled his or her

expectations. Satisfaction is thus a function of comparative levels of expectation and perceived performance (Kotler & Clarke, 1987).

Significance

Research Gaps

A number of studies exists that use survey instruments to determine predictors of effective schools. The instruments accomplish this by measuring students' academic achievement (Lezotte, 1989; Marzano, 2003; Samdal, Wold, & Bronis, 1999), which presents evidence on a number of successful methods used to gain the maximum results that benefits students. Surveys can be used in schools and businesses alike to measure satisfaction of students, parents, and patrons. Surveys identify ways to improve the product. In schools, this translates into ways to become more effective in educating the students. This can also communicate to the stakeholders that the school is interested in quality. Effective school leaders are always looking for ways to improve in order to provide a quality education. However, none of these studies have combined their research with collecting data to determine, according to gender and religious affiliation, if a 12th grade students' GPA, mobility, and ACT composite scores had any influence on the students expressed academic, social, faculty, and spiritual satisfaction with the school they attend.

Potential Implications for Practice

Academic achievement is important to students' lives in the present realm of accomplishing tasks, and it can determine their future standing in the community in which they chose to contribute productively to society. College-bound high school students are required to submit ACT scores for admission into higher educational

institutions. The ACT scores of incoming college freshman determine whether a student will be enrolled in the institutions remedial classes. The ACT has established the score of 19 as the college readiness benchmark on the individual subgroups of the ACT test. According to Viadero (2009), remediation costs colleges and universities \$1 billion a year.

The academic community of high schools across the nation can benefit from knowing if higher ACT composite scores is a factor to predict student satisfaction with their learning institution. Having their students academically prepared to enter higher education is a predictor of an effective school. High schools that find their ACT composite scores below average may conduct a student satisfaction inventory, identify evident factors contributing to the dissatisfaction, and design interventions that may improve overall student satisfaction.

Process to Accomplish

Design

A quantitative, regression strategy was used in this study. The independent or predictor variables for Hypotheses 1-4 were gender, religious affiliation (church of Christ versus non-church of Christ), academic achievement measured by GPA, longevity measured by years, and college readiness measured by ACT composite scores. The dependent or criterion variable for each of the hypotheses, however, differed.

For Hypothesis 1, the dependent variable was academic satisfaction for 12th grade students in four private, Christian schools in Arkansas. For Hypothesis 2, the criterion variable was social satisfaction for 12th grade students in four private, Christian schools in Arkansas. For Hypothesis 3, the criterion variable was faculty satisfaction for 12th

grade students in four private, Christian schools in Arkansas; and for Hypothesis 4, the criterion variable was spiritual satisfaction for 12th grade students in four private, Christian schools in Arkansas.

Sample

The study used 12th grade students in four private, Christian schools associated with the churches of Christ in the state of Arkansas. The sample consists of 184 male and female students primarily Caucasian from rural and urban areas across Arkansas.

Instrumentation

In the Fall of 2012, college freshman attending a church of Christ sponsored higher educational institution and who were high school graduates of the four private, Christian schools associated with the churches of Christ in the state of Arkansas were given the *High School Satisfaction Questionnaire (HSSQ)* to test its validity.

In the Spring of 2013, 12th grade students from four private, Christian schools associated with the churches of Christ in the state of Arkansas completed the HSSQ developed by the researcher. The HSSQ was used to gather student data in four areas of their high school educational experience: academic, social, faculty, and spiritual satisfaction, which would be used as the criterion variables. A student was to respond to each question by marking a specific response on a 7 point Likert scale that ranged from *strongly disagree, disagree, disagree somewhat, neutral, agree somewhat, agree, or strongly agree.*

The standardized assessment data reported on the HSSQ was the composite score from the students ACT. The ACT was first administered in 1959 and has been in all 50 states since 1960. About 47% of all 2010 high school graduates in the United States took

the ACT during high school, or about 1.57 million graduates. Approximately one in every 3,300 students scored a perfect score of 36. Upon retesting, ACT (2008a) reported that 55% increased their composite score, 22% had no change in their composite score on the retest, and 23% decreased their composite score.

ACT has a reliability score in English of .91, mathematics of .91, reading of .85, science of .80, and a composite reliability score of .96 (ACT, 2007). ACT noted that Arkansas administered the ACT to 88% of all high school graduates in 2012, and they scored an average composite score of 20.3. The ACT exam contains 215 items with time limits for each area. Reading and Science both contain 40 questions each timed at 35 minutes, mathematics has 60 questions and is a 60-minute test, and English has 75 questions lasting 45 minutes. The writing prompt component of the test was not used in this study. The students self-reported composite scores were the only data from the ACT used for the study.

Data Analysis

To address each hypothesis, a multiple regression was conducted using gender, religious affiliation (church of Christ versus non-church of Christ), academic achievement measured by GPA, longevity measured by years, and college readiness measured by ACT composite scores as the predictor variables. The criterion variables for the four hypotheses included academic satisfaction, social satisfaction, faculty satisfaction, and spiritual satisfaction for 12th grade students in four private, Christian schools in Arkansas, respectively. Each analysis examined the significance of the model as a whole and then examined each predictor variable within each model to determine

how much it contributed to the overall formula. The null hypothesis was tested using a two-tailed test with a .05 level of significance.

CHAPTER II
REVIEW OF RELATED LITERATURE

Student Satisfaction

Levels of student satisfaction on high school campuses across the nation provide a gauge, or to use a familiar school term, a report card, for how a school is doing as a whole. It is vital for a school to have significant documented data on what impacts student satisfaction. This data can help a school make important calculated decisions on where to focus its efforts of improvement. A school must continue to cultivate an environment of learning for its students, or it will soon fail its students and community. This environment should be one where students and faculty, at the very least, have a community of support both academically and socially. Student satisfaction is one of many factors in a school system that is critical for its existence. For the private schools across the nation student enrollment, connected to tuition, is the “lifeblood” of their existence. Leaders of private schools understand there are many options for parents to seek in the education of their children. Public school, homeschool, and charter schools, which are publicly funded schools that focus on a particular curriculum, and are exempt from some of the regulations seen in regular public schools, are all educational choices that can decrease student enrollment in a private school (Chakrabarti & Roy, 2010).

With the downturn of the economy, financial reasons are the primary cause for students leaving private schooling. Private school leaders have to launch full out

marketing campaigns to recruit students to fill their classrooms. Leaders promote everything from facilities, small class sizes, technology, athletics, matriculated students, and tuition assistance to sell their educational system to current and prospective stakeholders (Galski, 2010). Student satisfaction data can identify the areas of strength in a school system allowing its leaders to promote in the community and develop a strong and loyal organization.

The business world for decades has been committed to understanding and improving not only consumer satisfaction, but employee satisfaction, as well. One internationally recognized program uses the Work Environment Survey (WES) to gather information from its employees. The BC Public Service (2009) indicated:

To make improvements to employee engagement, organizations need to be equipped with accurate and relevant information about the local work environment, what issues employees feel are important, and what areas need improvement. Paying attention to employee engagement is important for a number of reasons. First, the obvious benefits shared by all employees of working in a healthy, desirable, high functioning environment. Knowing what aspects to improve is the most important prerequisite to developing the most appropriate solutions. Second, research shows that companies with highly engaged employees are more productive, experience less absenteeism, and retain more employees than other companies. Higher employee engagement also translates into better services or products, more satisfied customers, and ultimately higher profits. (para. 2)

The WES or instruments similar to the WES can provide a wealth of valuable knowledge to leaders of a company. A commitment to this continuous improvement equips any organization for long-term success.

The educational community has adopted the business community model realizing the importance of obtaining ongoing feedback from its students. The higher educational institutions capitalize on this effort more than the secondary education institutions do at this point. Noel-Levitz (2011) contended that understanding student's experiences and satisfaction with a diagnostic satisfaction tool is important for any institution's growth because it gives insight into what students view as worthwhile.

This researcher used the HSSQ, which provided assessment of student satisfaction on the following four areas of school life in four private, Christian schools in Arkansas. First, academic satisfaction scores provided insight into student's views about scholarly activities, learning environments, academic skill preparation, and overall academic expectations of the institution. Second, social satisfaction results offered awareness into student's views about interaction and relationships with peers at school, the value of participation in clubs or teams, and the encouragement the school provided to belong to these types of organizations. Third, faculty satisfaction ratings allowed for understanding the student's opinions regarding the abilities, effectiveness, and supportive nature they received from their teachers. Lastly, the students provided answers to questions asked about the overall spiritual nature of their school and the faith-growing opportunities their school provided.

Gender

Gender was used as a predictor variable in this study. A basic question of male or female was asked of the participants in the demographic section of the HSSQ. Race, social class, and gender tend to be treated as separate issues in education literature. Grant and Sleeter (1986) examined education literature covering ten years, to determine the extent to which these status groups were integrated with each other in individual studies:

We found little integration. We then provide an example from research on cooperative learning to illustrate how attention to only one status group oversimplifies the analysis of student behavior in school. From findings of studies integrating race and class, and race and gender, we argue that attending only to race, in this example, oversimplifies behavior analysis and may contribute to perpetuation of gender and class biases. (p. 195)

Even though Grant and Sleeter determined that integration of race, social class, and gender was important to protect against biases in studies, many examinations exist that single out gender for key understanding of issues.

Sousa-Poza (2003) analyzed job-satisfaction differences between men and women in Great Britain for ten years. The results showed that women's job satisfaction declined substantially over the decade, but men's job satisfaction remained constant. This result clearly stated an interpretation of the gender differences in job satisfaction.

Other studies have documented both favorable and unfavorable students' perceptions in education. Muilenburg and Berge (2005) reviewed the literature specifically on students' perceived barriers to online learning:

We also searched for indications of what background characteristics and demographics of the learner might affect the outcomes of their learning. Previous studies have found significant differences in learning, attitudes, motivation, or experiences based on gender, e.g., Chen, 1986; Teo & Lim, 2000; Young, 2000.

(p. 30)

The difference of male or female in this study of student satisfaction was used as a predictor variable much like gender has been used in previous studies.

Religious Affiliation

In this study, the four private, Christian schools used to survey 12th grade students were affiliated with the churches of Christ. Not all survey participants were members of the church of Christ even though they attended a church of Christ affiliated school.

History of Churches of Christ

Allen and Hughes (1988) contended the churches of Christ today are a theologically conservative, Protestant Christian body with roots in the Barton W. Stone-Alexander and Thomas Campbell Restoration Movement that began in America in the early nineteenth century. The movement's goal was to bring about Christian unity by restoring simple New Testament faith and practice. Nichols (1953) added they do not purpose to be another denomination, but attempt to pattern themselves after the Christians of the first century. They work to be more than just good citizens in the community, but good citizens that follow God and His teachings in the Bible. Allen and Hughes (1988) also recognized that the churches of Christ roots are multifaceted. In fact, they have three other sets of roots:

First, the biblical documents left by the primitive church-the fundamental source of our spiritual identity; second, the restorationist side of the Protestant Reformation in which many presuppositions about the Bible were shaped; and third, the Enlightenment of the seventeenth and eighteenth centuries which did much to shape the rationalistic model for unity. (p. 6)

Understanding their roots help shape their lives and allow them to live out their Christian commitment more clearly.

The churches of Christ derive their name from God's word in the New Testament where several scriptural names are used to describe the church and its members. Nichols (1953) noted in Romans 16:16, Paul refers to the plurality of various local churches or congregations as being the "churches of Christ."

Churches of Christ are autonomous and have no central headquarters and no official organization beyond the elders of each local congregation that provide spiritual guidance and are responsible for all financial affairs. Haynie (2013) noted the following:

All men who are members of the congregation are invited to participate in leading aspects of the worship services, while female members teach the young children in Bible classes, serve in staff positions, and engage in charitable and benevolent activities. Worship services may include non-instrumental singing, scripture readings, and a sermon, but every Sunday service will include the Lord's Supper (communion). Membership in the churches of Christ is based simply upon a person's confession of faith before witnesses that "Jesus Christ is the Son of God" and his/her immediate immersion in baptism for the remission of sins. (para. 4)

Each congregation is free to choose their eldership and ministerial staff which serves the local congregation and community.

Haynie (2013) stated the churches of Christ as part of the Restoration Movement came to Little Rock, Arkansas in the summer of 1832. Royster (2012) recorded in the publication *21st Century Christian* that there were 714 congregations in Arkansas, in all 75 counties, with 65,991 members and 83,565 adherents, making the churches of Christ the second largest religious fellowship in Arkansas. Baxter (2012) estimated there are approximately 15,000 individual congregations with a total membership of 2 million people in the United States and worldwide the churches of Christ comprise an estimated 5,062,074 members in over 40,000 individual congregations.

History of Participating Church of Christ Schools

The four private, Christian schools in Arkansas that educated the students used in this research are associated with the churches of Christ. They all have a rich history in Christian education and the state of Arkansas. According to its website, School 1 was founded in 1971 at a local church of Christ and is located in the state's capital city. It is fully accredited by several agencies and is overseen by a board of directors. The two elementary schools and one high school serve approximately 1200 students, kindergarten through the 12th grade (K-12).

Established in 1953, School 2's website records that they are located in Northeastern Arkansas. School 2 is a fully accredited school system with 350 students K-12. As documented on its website, School 3 is a fully accredited K-12 school, located north of the state's capital where it serves 680 students. It is affiliated with a local Christian university and overseen by its Board of Trustees. Both were established in

1924 and named in honor of an early pioneer preacher and educator. Information in the school profile on School 4's website verifies it began in 1970. In addition, a fully accredited school, it serves 325 students K-12 in an urban city of Northeastern Arkansas.

Throughout their history, all of these schools have been very successful at providing a quality Christian education in a nurturing environment. The Bible has been their foundation. Each school has Bible classes and chapel along with biblical principles incorporated into all subject areas. They pride themselves upon their rigorous approach to academics while preparing their students to be "salt and light" in their communities and the world.

Schultz (2008) recognized that education has been defined as the process by which children develop knowledge, skills, and character, especially through formal instruction, training, and study. He presented the philosophy of Christian education as, "a lifelong, Bible-based, Christ-centered process of leading a child to Christ, building a child up in Christ, and equipping a child to serve Christ" (p.29). Haynie (2013) added the following:

The Restoration Movement has deep roots in Christian education. The necessity for the individual to be able to read and comprehend the Bible for him/herself was one of its foundation stones. One of Alexander Campbell's first goals was to found a Christian academy and a college. He established Bethany College in 1840, in Bethany, Virginia, and began to produce numbers of educated and evangelically minded graduates. (para. 14)

Education is a lifelong process to develop the mind, but Christian education is a lifelong process that helps an individual conform to the image of Christ.

There are many scriptures acknowledging the philosophy of schools that declare Christian education. They recognize that Jesus Christ is their authority and Lord of truth. “I am the way and the truth and the life” John 14:6 (New International Version). Jesus Christ is their foundation. “For no one can lay any foundation other than the one already laid, which is Jesus Christ” (I Corinthians 3:11). The Lord is wisdom and knowledge. “In whom are hidden all the treasures of wisdom and knowledge” (Colossians 2:3). The Son of God is their stability. “Rooted and built up in him, strengthened in the faith as you were taught, and overflowing with thankfulness” (Colossians 2:7). By choosing a school that holds to this philosophy of Christian education, parents ensure that their children will receive consistent education both at home and at school (Schultz, 2008).

Academic Achievement

Academic achievement can be defined as the level of schooling one has successfully completed, the achievement of attaining a body of work academically, receiving good marks in school, or simply mastering an intellectual skill. In short periods, academic achievement is most routinely measured by examinations or continuous assessment pieces that report a single grade on the assessment. Bailey and McTighe (1996) asserted although there are various means to communicate summative student learning, currently a single report card grade for each academic subject is the most common and generally accepted system in middle and secondary schools. The widely used method of communicating a student’s cumulative body of academic work over a 4-year period usually is measured by GPA, which calculates the average of the students reported grades. Geiser and Santelies (2007) cautioned while GPA is able to communicate academic achievement the GPA of a high school student is often viewed as

an unreliable source for college admission because of the differences in grading methods in high schools. The standardized tests are seen as systematically rigorous, providing a more uniform and valid benchmark for assessing student ability and achievement. As researchers investigate this relationship, they will find contrasting perceptions. Testing agencies such as the College Board, which owns and administers the SAT, do little to discourage this perception. Camara and Michaelides (2005) supported the testing agencies, “The high school GPA ... is an unreliable variable, although typically used in studies of predictive validity. There are no common grading standards across schools or across courses in the same school” (p. 2). This inconsistency makes it difficult for college admissions to get an accurate read on the incoming freshman.

With their most recent study Geiser and Santelies (2007) challenged the conventional belief:

The study finds that high-school grade point average (HSGPA) is consistently the best predictor not only of freshman grades in college, the outcome indicator most often employed in predictive-validity studies, but of four-year college outcomes as well. A previous study, UC and the SAT (Geiser with Studley, 2003), demonstrated that HSGPA in college-preparatory courses was the best predictor of freshman grades for a sample of almost 80,000 students admitted to the University of California. (p. 1)

With these findings Geiser and Santelies make a case for colleges to place a greater emphasis on the high school record of a student.

Belfield and Crosta (2012) added from their analysis of study that the high school GPA is a good and consistent predictor of success in higher learning and that it could be extremely useful to college academic advisors for student placement in academic courses. With these findings and more, the University of California and other institutions are discussing the enhanced role GPAs should play as an indicator of academic achievement and admission to their particular institution of higher learning.

With success comes rewards and academic achievement can bring admittance to colleges, recognition, scholarships, and job placement. Researchers have taken a physiological approach to understanding human behavior and studied their drive for approval and achievement. Covington (2000) acknowledged:

The most sophisticated view of achievement motivation as a learned drive was developed in the 1950s and early 1960s by Atkinson and McClelland. This theory held that achievement is the result of an emotional conflict between striving for success and avoiding failure. These two motivational dispositions were characterized largely in emotional terms. For example, hope for success and the anticipation of pride at winning or prevailing over others was said to encourage success-oriented individuals to strive for excellence. On the other hand, a capacity for experiencing shame was thought to drive failure-oriented persons to avoid situations where they believed themselves likely to fail. It was the balance, or more aptly the imbalance between these two factors that was believed to determine the direction, intensity, and quality of achievement behavior. (p. 173)

Grades and scores in school are used as motivational tools for students. Students realize that if they seek academic achievement and are successful, they will benefit from their

efforts. This motivation will help them obtain individual goals. The reluctant or unmotivated student will find it difficult to achieve success.

Student Mobility

When the term *student mobility* is used, it describes students that change schools for reasons other than being promoted to the next grade level. Students who transfer frequently between schools during the school year are at greater risk for academic and behavioral problems (Hartman, 2002). Some research suggested that differences in student achievement between non-mobile and mobile students can also be attributed to students' background characteristics (Rumberger, 2002).

The 2004 Annual Social and Economic Supplement to the United States Census conveyed that 15 to 20% of school-aged children moved in the previous year. According to researched organized in 1994 by the United States General Accounting Office, one out of six children had attended three or more schools by the end of the 3rd grade.

Rumberger (1999) reported that more American eighth-grade students changed schools for reasons other than promotion during their elementary and secondary school careers than did students who remained in one stable pattern of attending a single elementary, middle, and high school. Rumberger (2003) also stated the NAEP reported in 1998 that 34% of 4th graders, 21% of 8th graders, and 10% of 12th graders changed schools at least once in the previous 2 years. The highest mobility rate was for African American students at 45%, followed by Hispanic students at 41%, Asian students at 33%, and White students at 27%.

Research indicates that frequent school changes have a cumulative effect on students' achievement that can place them as much as a year behind their peers (Kerbow,

1996). Rumberger and Larson (1998) noted students changing schools repeatedly are also at greater risk of dropping out. They also found schools with high rates of student mobility generally have one or more of the following characteristics; large population of children of migrant workers, large population of homeless children, and large population of low-income families. One of the significant issues mobility can affect a students' education is lower achievement levels due to discontinuity of curriculum between schools. Rysewyk (2008) added:

Mobility can harm both the student and the classroom he or she enters. Incoming students can suffer socially, psychologically, and academically from mobility. On a social level, students must adjust to new peers and social expectations. Each time students move, they must rediscover where they fit into the social environment and once again prove themselves. Peer groups are very close in high schools and students are not often open to accepting new individuals into their preformed social groups. (p. 42)

Rumberger (2003) described a similar situation in students, reporting that students felt as if their personalities were shattered after moving. They said their lives lacked grounding and they were in a constant state of uncertainty. With every move, students reported feeling less important. Pribesh and Downey (1999) went on to add students with high rates of mobility were less likely to participate in co-curricular activities. This could allow for further progression of student dissatisfaction from school.

It has been discovered in schools with high mobility rates there can be unfavorable effects on the non-mobile students as well. Rumberger (2002) found in California that average test scores for non-mobile students were significantly lower in

high schools that had high student mobility rates. In this study, school personnel reported the high rate of mobility caused a constant environment of chaos.

Educational leaders recognize the problems of student mobility and also understand financial struggles lead to instability, but are not willing to just sit back and accept the dilemma. Leaders are attempting to try to educate the parents to the adverse effects of moving from community to community. According to *Education Week* (2004):

Twenty-five states have developed a statewide student-identification program designed to help schools that receive transfers access important information about a new student's history in a timely manner. States are developing programs in an attempt to lower student mobility rates and mitigate the effects of mobility on students' education. Examples of these programs and strategies include: providing outreach to educate parents about minimizing the negative effects of mobility, creating "buddy systems" by partnering new students with current students, implementing district-wide and state-wide standardized curricula, developing efficient student record-tracking systems between schools and districts, and providing professional development to assist teachers in meeting the needs of highly mobile students. (para.7)

The active educational leader will take these informative programs into the community creating relationships with their stakeholders, and demonstrating that they want to provide the best education for their children.

College Readiness

In order for students to be considered *college ready* they must possess a combination of skills, knowledge, and habits of mind necessary to fully participate and

engage in college-level courses to a successful completion. Each year as high school graduates walk across the stage at their respective school they expect the diploma they receive to equate with college readiness. That high school graduate might be unaware that the school they thought was preparing them for higher education has let them down. Pointed out by Steinberg and Almeida (2008), in a 2004 report entitled *Ready or Not: Creating a High School Diploma that Counts*, it was concluded, “For far too many young people, the high school diploma represented ‘a broken promise’ that could no longer guarantee a graduate was ready to compete in the college classroom or the modern workplace” (p. 1). Furthermore, they warned at a time in our nation’s educational history when the high school diploma is not enough anymore, the percentage of high school graduates entering higher education is drastically increasing with the largest number of students coming from low-income families. Bueschel and Venezia (2006) further provided, “Focusing on access to higher education is important and necessary, but a larger challenge lies in ensuring that expectations and preparation for success are stressed just as much as access” (p. 30). Educational leaders must do their part to ensure quality education is taking place in their institutions.

Transitioning from high school to college can be an intimidating assignment and one that can overwhelm or even scare off possible future college graduates. Teachers and administrators at all levels must work to integrate efforts that will ensure the success of all students. The senior in high school getting ready to graduate has dreams of attending an institution of higher education. That senior has his or her body of academic work communicated through their GPA. Companies have been created to assist that 12th grade student in letting them know if they are college ready by developing standardized testing

for college entrance. Admission offices of colleges across our nation typically use both high school GPA and scores on college entrance tests, such as the ACT, to predict a future student's likelihood of academic success in their higher educational institution.

With the end of World War II, the United States started to see financial recovery taking place in the 1950s when a considerable number of students were approaching college age and wanted to further their education. The United States was able to offer more financial aid to students and colleges were eager to increase enrollment. All of these factors contributed to the establishment of The American College Testing Program, Inc., now known as the ACT (ACT, 2013).

According to the ACT website (2013), E. F. Lindquist and Ted McCarrel established the American College Testing program in 1959, with the first test being given in the fall of 1959. The ACT test is not an intelligence test but an achievement test that measures what students have learned in the areas of reading, math, English, and science. The ACT also gives an optional writing test. The concept for the American College Testing program emerged in the 1950s, and the organization itself was founded in 1959. At that time, United States political and demographic developments were inspiring major changes in attitudes about, and approaches to, higher education. Prior to 1959, there was just one major national college-entrance testing program, and it focused on identifying the most academically able students for admission to the nation's select universities. The remainder of college students was admitted either based on scores earned on entrance exams offered by individual states or colleges or based on family ties.

The first testing program established by ACT, ACT Assessment, was designed to serve two purposes. The first was to help students make informed decisions about their

choice of universities as well as their programs of study. The second included the university itself, which was to aid the institution in the selection and retention of strong academic students. This service came by way of information, which helped colleges regarding admission policies, as well as data, which may ensure future success of the student (ACT, 2013).

As the United States progressed and began to embrace a more educated society, the ACT organization saw the need to grow and evolve with the country. The ACT became an organization that was commonly recognized in the academic community. Their assessment pieces for predicting college readiness and success both in education and the workplace were being used across the nation. In 1996, the organization formally changed its name from American College Testing to ACT (ACT, 2013).

With the increase in American population and the demand for postsecondary education in the workforce, there has been an increase in the number of students taking the ACT exam. ACT (2012a) reported a steady growth, “Fifty-two percent of 2012 graduates took the ACT or 1.66 million students. This is a 17% increase between the years of 2008-2012” (p. 12). The report further defines college readiness by ACT’s College Readiness Benchmarks. College Readiness Benchmarks are the “minimum scores needed on the ACT subject area tests to indicate a 50% chance of obtaining a B or higher or about a 75% chance of obtaining a C or higher in corresponding first-year credit-bearing college courses” (p. v). The report revealed some alarming facts, “Just 1 in 4 (25%) met all four College Readiness Benchmarks, this indicates that only one in four students was academically ready for college coursework in all four subject areas” (p. 4). ACT (2012a) went on to say, “far too many students are graduating from high school

ill-prepared for the academic rigors of college and career” (p. iii). The results indicate that the elementary and secondary educational systems in the United States must do a better job preparing students to compete for careers in a global economy.

In the organizations 2012 data ACT (2012a) reports, “Sixty-seven percent of all ACT tested high school graduates met the English College Readiness Benchmark” (p. 1). In the same study, “52% of graduates met the Reading Benchmark, while 46% met the Mathematics Benchmark. Just under 1 in 3 (30%) met the College Readiness Benchmark in Science” (p. 1). ACT further indicated “the percent of students meeting all four Benchmarks increased slightly between 2008 and 2012” (p. 2). The disturbing news from ACT is that 28% of all graduates did not meet any of the College Readiness Benchmarks, and 47% met between one and three Benchmarks. ACT (2012b) reported, “nineteen percent met all four of the college benchmarks” (p. 4), for the graduating class of 2012 in Arkansas.

The national average ACT composite score, as reported by ACT (2012a), has increased slightly from 21.0 in 2001 to 21.1 in 2012. Arkansas tested 88% of all graduating students in 2012 (ACT, 2012b), the average ACT composite score for Arkansas was 20.3. According to ACT’s 2012 State Profile report for Arkansas, scores indicated Arkansas is below the national average on each subtest. The average national ACT English score was 20.5, while Arkansas’ was 20.0. The average national ACT mathematics score was 21.1, while Arkansas’ was 20.0. The average national reading score was 21.3, while Arkansas’ was 20.6. The average national science score was 20.9, while Arkansas’ was 20.1 (ACT, 2012b).

Reuschel (2009) criticized the using of ACT scores as predictors for college success. The disapproval has come from the fact that ACT scores do not measure such noncognitive variables as writing, work ethic, speaking skills, motivation, and artistic or musical ability. Thus, critics have suggested that, when used in isolation, ACT scores are poor predictors of college success (Cabrera & Burkham, 2001). Popham (2006) maintained:

It's important to remember that variables other than test scores have three times as much impact on that student's college performance. With only 50% of the college grade point average being predicted by ACT and SAT scores, the majority of the prediction comes from other external factors such as motivation and study habits.
(p. 87)

Critics must remember the advantage of using the ACT as an assessment is that these tests are standardized measures that uphold meaning across the schools in our nation and for multiple years. Testing is dominating our educational landscape under the concept of accountability. It is apparent that the ACT and other similar tests are here to stay.

Conclusion

This study attempts to address some of the predictors for student satisfaction in private Christian schools. Student satisfaction can be useful to educational institutions, to help them to pinpoint their strengths and identify areas for improvement. Areas of academic, social, faculty, and spiritual satisfaction were assessed by the HSSQ. Determining which predictors of the student experience are most closely related to satisfaction may provide information about actions that can be taken to maintain high levels of satisfaction and improve student learning. Predictors such as gender, religious

affiliation, academic achievement, student mobility, and college readiness were researched. The research indicated that GPA was one way to measure academic achievement, but other factors also played a vital role. Researchers agreed that student mobility affected student achievement in a negative way and that academic leaders were taking steps necessary to educate parents of the negative ramifications that frequently moving their children could have on their child's academic success. Colleges and universities seek high achievement for their students, and want to admit students who have a good chance of being successful in college. College readiness is frequently assessed by national exams such as the ACT. Researchers agree this is not the only means of assessment, but do recognize it is an effective tool.

CHAPTER III

METHODOLOGY

This study had many purposes. One purpose was to determine if gender, religious affiliation (*church of Christ* versus *non-church of Christ*), academic achievement measured by GPA, longevity measured by years, and college readiness measured by ACT composite scores have a predictive effect on academic satisfaction for 12th grade students in four private schools, associated with the churches of Christ, in Arkansas. Academic satisfaction for students was measured when student's views were expressed in the survey about scholarly activities, learning environments, academic skill preparation, and overall academic expectations of the institution. Student satisfaction inventories can give leaders a powerful tool to improve the quality of student life and learning in their educational institution. The results measure student satisfaction and priorities, showing how satisfied students are as well as what issues are important to them.

Another purpose of the study was to determine if the same variables had a predictive effect on social satisfaction. These results offer awareness into student's views about interaction and relationships with their peers at school. They additionally give insight into the value of participation in clubs or teams, and the encouragement the school provides to belong to these types of organizations. According to the review of literature, many studies suggested that learning occurs through cooperative interaction with others

in the learning population, and a significant relationship has been found between attitudes toward school and overall academic success (Ding & Hall, 2006).

The third purpose of this study was to determine if these variables had a predictive effect on faculty satisfaction. During the school day, other than their peers, students have the greatest interaction with their teachers. Data were gathered for understanding into the students opinions regarding the abilities, effectiveness, and supportive nature they receive from their teachers.

Finally, the fourth purpose used the same previous variables to determine a predictive effect towards a 12th grade student's spiritual satisfaction. Student's insight of the overall spiritual nature of their private, Christian school and their faith-growing opportunities that their school provided was recorded.

This study examined the factors predicting the satisfaction of 12th grade students in four private, Christian schools in Arkansas. The researcher generated the following hypotheses:

1. No predictive effects will exist between gender, religious affiliation (church of Christ versus non-church of Christ), academic achievement measured by GPA, longevity measured by years, and college readiness measured by ACT composite scores on academic satisfaction for 12th grade students in four private, Christian schools in Arkansas.
2. No predictive effects will exist between gender, religious affiliation (church of Christ versus non-church of Christ), academic achievement measured by GPA, longevity measured by years, and college readiness measured by ACT

composite scores on social satisfaction for 12th-grade students in four private, Christian schools in Arkansas.

3. No predictive effects will exist between gender, religious affiliation (church of Christ versus non-church of Christ), academic achievement measured by GPA, longevity measured by years, and college readiness measured by ACT composite scores on faculty satisfaction for 12th-grade students in four private, Christian schools in Arkansas.
4. No predictive effects will exist between gender, religious affiliation (church of Christ versus non-church of Christ), academic achievement measured by GPA, longevity measured by years, and college readiness measured by ACT composite scores on spiritual satisfaction for 12th-grade students in four private, Christian schools in Arkansas.

This chapter will discuss the research design, selection and description of the sample population and how scores were obtained. Additionally, the chapter will cite the instrument used to measure student satisfaction, data collection, statistical analysis processes, and the limitations.

Research Design

A quantitative, nonexperimental, strategy using regression analysis was used in this study. The primary purpose for multiple regression is to predict a relationship among variables. According to Pallant (2007), “Multiple regression is not just one technique but a family of techniques that can be used to explore the relationship between one continuous dependent variable and a number of independent predictors” (p.146). In multiple regression, all independent variables are entered into the analysis

simultaneously. Tabachnick and Fidell (2007) stated, “The effect of each IV on the DV is assessed as if it had been entered into the equation after all other IVs had been entered. Each IV is then evaluated in terms of what it adds to the prediction of the DV” (p.136). By using the multiple regression model this study was able to group variables that best predict the dependent variable. The independent or predictor variables for Hypothesis 1 were gender, religious affiliation (church of Christ versus non-church of Christ), academic achievement measured by GPA, longevity measured by years, and college readiness measured by ACT composite scores. The dependent or criterion variable was academic satisfaction for 12th grade students in four private, Christian schools in Arkansas. The predictor variables for Hypothesis 2 were gender, religious affiliation (church of Christ versus non-church of Christ), academic achievement measured by GPA, longevity measured by years, and college readiness measured by ACT composite scores. The criterion variable was social satisfaction for 12th grade students in four private, Christian schools in Arkansas. The predictor variables for Hypothesis 3 were gender, religious affiliation (church of Christ versus non-church of Christ), academic achievement measured by GPA, longevity measured by years, and college readiness measured by ACT composite scores. The criterion variable was faculty satisfaction for 12th grade students in four private, Christian schools in Arkansas. The predictor variables for Hypothesis 4 were gender, religious affiliation (church of Christ versus non-church of Christ), academic achievement measured by GPA, longevity measured by years, and college readiness measured by ACT composite scores. The criterion variable was spiritual satisfaction for 12th grade students in four private, Christian schools in Arkansas.

Sample

The study utilized a convenient sample of 12th grade students in four private, Christian schools associated with the churches of Christ in the state of Arkansas. The researcher requested permission (Appendix A) from the administrator in charge of each private school used in the study. Each superintendent gave approval for the researcher to come onto campus and survey his or her students. The sample consisted of 184 students. These students consisted of both male and female, primarily Caucasian from rural and urban areas across Arkansas. All students were classified according to gender, school attended, years attending present school, if transferred whether it was from a public or private school, how many times they had taken the ACT, ACT composite score, GPA range, and if they were a member of the church of Christ.

Instrumentation

In the Fall of 2012, the researcher obtained IRB approval (Appendix B) for research and developed a HSSQ. The researcher began the process to conduct a pilot survey for the HSSQ. The researcher provided documentation of IRB approval and a Dissertation Approval Form to the Dean of Students and Associate Provost of Undergraduates at a higher educational institution in Arkansas associated with the churches of Christ and gained approval to conduct a pilot survey of the HSSQ. The researcher obtained email addresses from 150 target students and invited them to complete the HSSQ on a specific morning. These target students were college freshman, and sophomores attending the church of Christ sponsored higher educational institution and who were high school graduates from the four private, Christian schools associated with the churches of Christ in the state of Arkansas. Of the students invited, 59 target

students accepted the invitation and completed the HSSQs. Students came into a classroom, picked up a hardcopy of the HSSQ, and completed the survey by using pen or pencil. The researcher had a specific research number placed on each HSSQ and no identifiable student information was placed on the HSSQ.

Reliability

The HSSQ's that were completed by the target students were used to test the reliability of the instrument. An aspect of reliability that the researcher assessed was internal consistency. Pallant (2007) described this indicator of reliability as, "the degree to which the items that make up the scale are all measuring the same underlying attribute. Internal consistency can be measured by using Cronbach's coefficient alpha. Values range from 0 to 1, with higher values indicating greater reliability" (p. 6). For the HSSQ pilot survey, Cronbach's alpha for academic satisfaction was .885, for social satisfaction .874, the data for faculty satisfaction was .873, and for spiritual satisfaction, Cronbach's alpha was reported as .878.

Construct and Content Validity

The pilot survey revealed suggestions to also improve the instrument's validity—its ability to actually measure the intended construct. Based on the pilot survey, adjustments were made to the HSSQ such as expanding the Likert scale from five choices to seven choices, and to further the reliability, techniques were used such as bold type and underlining the word *not* in the reverse questions which were embedded in the survey. Each survey item was then numbered. After these tests and adjustments, the HSSQ was approved for finalization in the Spring of 2013 and administered to 12th grade

students from four private, Christian schools associated with the churches of Christ in the state of Arkansas.

HSSQ Components

The HSSQ (Appendix C) had 47 items, which included four components. Each component was scored by an item-by-item summary method using the score of 1 to 7. The academic component had 17, seven point Likert scale items and the scoring was measured on a scale ranging from 17, representing unsatisfied, to 119, representing satisfied. The social, faculty, and spiritual components each consisted of 10, seven point Likert scale items and the scoring was measured on a scale ranging from 10 to 70. The HSSQ also included demographic and academic items such as GPA range and ACT composite scores for the student to complete.

The standardized assessment data reported on the HSSQ was the composite score from the students ACT. The ACT was first administered in 1959 and has been in all 50 states since 1960. According to ACT (2012a) about 52% of all 2012 high school graduates in the United States took the ACT during high school, or about 1.66 million graduates. Approximately one in every 3,300 students scored a perfect score of 36. Upon retesting, ACT (2008a) reported that 55% increased their composite score, 22% had no change in their composite score on the retest, and 23% decreased their composite score.

ACT has a reliability score in English of .91, mathematics of .91, reading of .85, science of .80, and a composite reliability score of .96 (ACT, 2007). ACT noted that Arkansas administered the ACT to 88% of all high school graduates in 2012, and they scored an average composite score of 20.3. The ACT exam contains 215 items with time

limits for each area. Reading and Science both contain 40 questions each timed at 35 minutes, mathematics has 60 questions and is a 60-minute test, and English has 75 questions lasting 45 minutes. The writing prompt component of the test was not used in this study. The students self-reported composite scores were the only data from the ACT used for the study.

Data Collection Procedures

In the Spring of 2013, the researcher administered the HSSQ to 12th grade students from four private, Christian schools associated with the churches of Christ in the state of Arkansas. The researcher gained permission from the superintendent of each school (Appendix A) to visit each campus and administer the HSSQ to 12th grade students on their specific campus. The researcher gave the HSSQ's and administering instructions to the high school principal of each school. The high school principal then gathered the 12th students in a classroom and the principal handed out, monitored, and collected the HSSQ when completed, sealing the HSSQ's in an envelope, and handing them to the researcher. One exception was made at the school where the researcher was the high school principal. At this school, a teacher was used in the administration of the HSSQ. A student was to respond in pen or pencil on the HSSQ to each item by marking a specific response on a seven point Likert scale and to fill out specific demographic data. The demographic data included gender, school attended, number of years the student has attended the school, highest composite ACT score, range of student's GPA, and if they were a member of the church of Christ. The researcher had a unique research number placed on each HSSQ to maintain confidentiality and no identifiable student information was placed on the HSSQ. The HSSQ was used to gather student data in four areas of

their high school educational experience; academic, social, faculty, and spiritual satisfaction, which would be used as the criterion variables. The student data were reviewed to verify that all requested information was completed to conduct the study and then exported to an excel spreadsheet.

Analytical Methods

SPSS Version 21 was used for data analysis in determining if any predictive effects occurred. There were no HSSQ's with missing values. All variables were analyzed using descriptive techniques, such as central tendency, variance, kurtosis, and skewness, appropriate to the level of measurement for each variable. Before conducting a regression analysis, the data were examined to determine that assumptions for multiple regression were met. A scatter plot was generated in order to determine if variables had a linear relationship to show that some significant associations between the variables exist. Residual plots were conducted to determine linearity, normality, and homoscedasticity. One outlier was identified using the z-score method. The z-score was in excess of 4 and was deleted from the analysis; as an outlier, it represented an unusual circumstance that was dramatically different from the rest of the data. To remove possible influence on the variance among the other variables, the outlier was removed.

In order to assure variables were not measuring the same information, collinearity statistics were utilized to determine if variables met the necessary requirements for tolerance and variance inflation factor (VIF) of less than .1 or greater than 10. Multicollinearity, a problem that arises when high intercorrelations exist among predictor variables, did appear between two independent variables (Mertler & Vannatta, 2010). Data analysis conclusions, findings, and discussions were reported in the results

chapters. After data were entered and analyzed by SPSS, student data were deleted from all computers. All student assessment surveys, both pilot and research, were also shredded.

Limitations

The results of this study must be considered in the light of certain limitations. One limitation was the design of the study because it was nonexperimental and used self-reported scores. Any student that had a negative attitude while completing the survey, due to the survey or some outside influence, could negatively affect results. Another limitation was the convenient sample of seniors. This sample of seniors may not necessarily be representative of past and future senior classes. A third limitation was the definition of *church of Christ* as related to personal self-reported perception. A surveyed student was to indicate if they were a member of the church of Christ. The student might not understand what constitutes a member. A fourth limitation was the researcher is an administrator within one of the schools where data were used. A fifth limitation is the differences between the four schools not being accounted for. All four schools vary in student population, ethnicity, geography, and percentage of students claiming to be members of the church of Christ. The sixth limitation of this study is the caliber of students who took the survey. These students were generally high achieving, college bound students who usually perform well on the ACT. Finally, there may be other relevant factors that influence satisfaction that were not identified and used in this study.

CHAPTER IV

RESULTS

This study explored the predictive effects exhibited between gender, religious affiliation (church of Christ versus non-church of Christ), academic achievement measured by GPA, longevity measured by years, and college readiness measured by ACT composite scores on academic, social, faculty, and spiritual satisfaction for 12th grade students in four private, Christian schools in Arkansas. Gender, religious affiliation, academic achievement, longevity, and college readiness served as predictor variables. The measure of satisfaction expressed was academic, social, faculty, and spiritual, which represented the criterion variables. The data collected for these variables indicated the students were generally satisfied with their experiences. A quantitative, nonexperimental, strategy using regression analysis was used in this study. The results of this analysis are contained within this chapter.

High overall satisfaction was indicated by the data which created difficulty to discriminate outcomes. Table 1 reveals the means were consistent across the groups. The data for the means translates to approximately 75% satisfaction for the groups.

Table 1

Satisfaction by Select Demographic Variables

Predictors	<i>n</i>	Academic Satisfaction		Social Satisfaction		Faculty Satisfaction		Spiritual Satisfaction	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Gender									
Female	82	86.93	14.92	54.40	10.59	53.66	10.50	56.04	12.66
Male	101	80.83	15.16	50.80	12.23	49.77	13.24	50.97	13.24
Religious Affil.									
C. of Christ	99	86.81	14.21	54.33	11.47	52.18	10.46	55.33	11.82
Other	84	79.74	15.77	50.15	11.49	50.73	10.28	50.77	14.34
Transfer Status									
From Private	33	86.85	86.85	52.94	9.12	53.06	7.48	53.79	10.33
From Public	78	83.60	83.60	52.40	12.25	51.58	10.94	52.01	14.75
Did not trans.	72	82.01	82.01	52.19	12.10	50.74	10.92	54.32	12.63

Note: Range of the *Academic satisfaction* scale = 0 – 119. Range of the *Social Satisfaction*, *Faculty Satisfaction* and *Spiritual Satisfaction* scales = 0 – 70 respectively.

Hypothesis 1

The first hypothesis stated gender, religious affiliation (church of Christ versus non-church of Christ), academic achievement measured by GPA, longevity measured by years, and college readiness measured by ACT composite scores will have no predictive effect on academic satisfaction for 12th grade students in four private, Christian schools in Arkansas. Standard multiple regression was conducted to determine the extent to which a model that includes gender, religious affiliation, longevity, college readiness, and academic achievement would predict the academic satisfaction of 12th grade students in

four private Christian schools in Arkansas. Data screening revealed no cases with standardized residual that exceeded what would be expected given the sample size (Field, 2009). An evaluation of the residual plot indicated that the assumptions of linearity, normality, and homoscedasticity were not markedly violated. An examination of scatterplots and correlation coefficients presented in Table 2 also confirmed that none of the predictor variables had a substantial nonlinear relationship with the academic satisfaction.

Table 2

Correlation Results for Hypothesis 1 on Academic Satisfaction

Pearson Correlation	AcadSat	Gender	RAff	AcadAch	Longev
AcadSat	1.000	.198	-.231	.177	-.026
Gender	.198	1.000	-.058	.201	.035
RAff	-.231	-.058	1.000	-.253	-.212
AcadAch	.177	.201	-.253	1.000	.202
Longev	-.026	.035	-.212	.202	1.000

Note. AcadSat = Academic Satisfaction
 Gender = Male or Female
 RAff = Religious Affiliation
 AcadAch = Academic Achievement measured by GPA
 Longev = Longevity, Years attended present school

However, high multicollinearity between academic achievement and college readiness led to the exclusion of college readiness as a predictor in the model (Mertler & Vannatta, 2013). Tolerance and VIF indicators for all other predictors were within the acceptable range (Field, 2009).

Table 3

Model Predicting Academic Satisfaction

Model	Sum of Squares	<i>df</i>	Mean of Squares	<i>F</i>
Regression	4467.31	4	1116.83	5.199***
Residual	38235.72	178	214.81	
Total	42703.03	182		

Significant at *** $p \leq .001$

Regression results indicated that the overall model significantly predicted academic satisfaction $F(4, 178) = 5.19, p = .001$. However, the model accounted for only 10.5% of variance in academic satisfaction ($R^2 = .105, R^2_{adj} = .084$). A summary of the regression model is presented in Table 3. A summary of the regression coefficients is presented in Table 4 and indicates that only two predictors (gender and religious affiliation) significantly contributed to the model.

Table 4

Coefficients for Academic Satisfaction Model

Coefficient	<i>B</i>	β	<i>t</i>	<i>p</i>	Collinearity Statistics	
					Tolerance	VIF
Constant	80.36		10.25			
Gender	5.15	.168	2.31	.022	.936	1.07
Religious Affiliation	-6.58	-.214	-2.88	.004	.909	1.10
Longevity	-.358	-.100	-1.36	.176	.932	1.07
Academic Achievement	1.79	.109	1.44	.151	.625	1.60

Hypothesis 2

The second hypothesis stated gender, religious affiliation (church of Christ versus non-church of Christ), academic achievement measured by GPA, longevity measured by years, and college readiness measured by ACT composite scores will have no predictive effect on social satisfaction for 12th grade students in four private, Christian schools in Arkansas. Standard multiple regression was conducted to determine the extent to which a model that includes gender, religious affiliation, longevity, college readiness, and academic achievement would predict the social satisfaction of 12th grade students in four private Christian schools in Arkansas. Data screening revealed no cases with standardized residual that exceeded what would be expected given the sample size (Field, 2009). An evaluation of the residual plot indicated that the assumptions of linearity, normality, and homoscedasticity were not markedly violated. An examination of scatterplots and correlation coefficients presented in Table 5 also confirmed that none of the predictor variables had a substantial nonlinear relationship with the social satisfaction.

Table 5

Correlation Results for Hypothesis 2 on Social Satisfaction

Pearson Correlation	SocSat	Gender	RAff	AcadAch	Longev
SocSat	1.00	.154	-.179	.191	.075
Gender	.154	1.00	-.058	.201	.035
RAff	-.179	-.058	1.00	-.253	-.212
AcadAch	.191	.201	-.253	1.00	.202
Longev	.075	.035	-.212	.202	1.00

However, high multicollinearity between academic achievement and college readiness led to the exclusion of college readiness as a predictor in the model (Mertler & Vannatta, 2013). Tolerance and VIF indicators for all other predictors were within the acceptable range (Field, 2009).

Table 6

Model Predicting Social Satisfaction

Model	Sum of Squares	<i>df</i>	Mean of Squares	<i>F</i>
Regression	2112.46	5	422.49	3.322**
Residual	22513.98	177	127.20	
Total	24626.44	182		

Significant at ** $p \leq .01$

Regression results indicated that the overall model significantly predicted social satisfaction $F(5, 177) = 3.32, p = .007$. However, the model accounted for only 8.6% of variance in social satisfaction ($R^2 = .086, R^2_{adj} = .060$). A summary of the regression model is presented in Table 6. A summary of the regression coefficients is presented in Table 7 and indicates that no individual predictors significantly contributed to the model.

Table 7

Coefficients for Social Satisfaction Model

Coefficient	<i>B</i>	β	<i>t</i>	<i>p</i>	Collinearity Statistics	
					Tolerance	VIF
Constant	38.53		5.48			
Gender	3.28	.141	1.89	.060	.936	1.07
Religious Affiliation	-3.21	-.138	-1.83	.069	.909	1.10
Longevity	.044	.016	.215	.830	.932	1.07
Academic Achievement	.519	.042	.457	.648	.625	1.60

Hypothesis 3

The third hypothesis stated gender, religious affiliation (church of Christ versus non-church of Christ), academic achievement measured by GPA, longevity measured by years, and college readiness measured by ACT composite scores will have no predictive effect on faculty satisfaction for 12th grade students in four private, Christian schools in Arkansas. Standard multiple regression was conducted to determine the extent to which a model that includes gender, religious affiliation, longevity, college readiness, and academic achievement would predict the faculty satisfaction of 12th grade students in four private Christian schools in Arkansas. Data screening revealed no cases with

standardized residual that exceeded what would be expected given the sample size (Field, 2009). An evaluation of the residual plot indicated that the assumptions of linearity, normality, and homoscedasticity were not markedly violated. An examination of scatterplots and correlation coefficients presented in Table 8 also confirmed that none of the predictor variables had a substantial nonlinear relationship with the faculty satisfaction.

Table 8

Correlation Results for Hypothesis 3 on Faculty Satisfaction

Pearson Correlation	FacSat	Gender	RAff	AcadAch	Longev
FacSat	1.00	.187	-.070	.162	-.013
Gender	.187	1.00	-.058	.201	.035
RAff	-.070	-.058	1.00	-.253	-.212
AcadAch	.162	.201	-.253	1.00	.202
Longev	-.013	.035	-.212	.202	1.00

However, high multicollinearity between academic achievement and college readiness led to the exclusion of college readiness as a predictor in the model (Mertler & Vannatta, 2013). Tolerance and VIF indicators for all other predictors were within the acceptable range (Field, 2009).

Table 9

Model Predicting Faculty Satisfaction

Model	Sum of Squares	<i>df</i>	Mean of Squares	<i>F</i>
Regression	1074.05	5	214.81	2.053
Residual	18517.67	177	104.62	
Total	19591.72	182		

Regression results indicated that the overall model did not significantly predict faculty satisfaction $F(5, 177) = 2.05, p = .073$. The model accounted for only 5.5% of variance in faculty satisfaction ($R^2 = .055, R^2_{adj} = .028$). A summary of the regression model is presented in Table 9. A summary of the regression coefficients is presented in Table 10 and indicates that only one predictor (gender) significantly contributed to the model.

Table 10

Coefficients for Faculty Satisfaction Model

Coefficients	<i>B</i>	β	<i>t</i>	<i>p</i>	Collinearity Statistics	
					Tolerance	VIF
Constant	41.42		6.49			
Gender	3.37	.163	2.16	.033	.936	1.07
Religious Affiliation	-.816	-.039	-.513	.609	.909	1.10
Longevity	-.130	-.054	-.707	.480	.932	1.07
Academic Achievement	1.33	.120	1.29	.197	.625	1.60

Hypothesis 4

The fourth hypothesis stated gender, religious affiliation (church of Christ versus non-church of Christ), academic achievement measured by GPA, longevity measured by years, and college readiness measured by ACT composite scores will have no predictive effect on spiritual satisfaction for 12th grade students in four private, Christian schools in Arkansas. Standard multiple regression was conducted to determine the extent to which a model that includes gender, religious affiliation, longevity, college readiness, and academic achievement would predict the spiritual satisfaction of 12th grade students in four private Christian schools in Arkansas. Data screening revealed no cases with standardized residual that exceeded what would be expected given the sample size (Field, 2009). An evaluation of the residual plot indicated that the assumptions of linearity, normality, and homoscedasticity were not markedly violated. An examination of scatterplots and correlation coefficients presented in Table 11 also confirmed that none of the predictor variables had a substantial nonlinear relationship with the spiritual satisfaction.

Table 11

Correlation Results for Hypothesis 4 on Spiritual Satisfaction

Pearson Correlation	SpiritSat	Gender	RAff	AcadAch	Longev
SpiritSat	1.00	.191	-.173	.202	.140
Gender	.191	1.00	-.058	.201	.035
RAff	-.173	-.058	1.00	-.253	-.212
AcadAch	.202	.201	-.253	1.00	.202
Longev	.140	.035	-.212	.202	1.00

However, high multicollinearity between academic achievement and college readiness led to the exclusion of college readiness as a predictor in the model (Mertler & Vannatta, 2013). Tolerance and VIF indicators for all other predictors were within the acceptable range (Field, 2009).

Table 12

Model Predicting Spiritual Satisfaction

Model	Sum of Squares	<i>df</i>	Mean of Squares	<i>F</i>
Regression	2773.63	5	554.73	3.395**
Residual	28917.80	177	163.38	
Total	31691.42	182		

Significant at ** $p \leq .01$

Regression results indicated that the overall model significantly predicted spiritual satisfaction $F(5, 177) = 3.40, p = .006$. However, the model accounted for only 8.8% of variance in spiritual satisfaction ($R^2 = .088, R^2_{adj} = .062$). A summary of the regression model is presented in Table 12. A summary of the regression coefficients is presented in Table 13 and indicates that only one predictor (gender) significantly contributed to the model.

Table 13

Coefficients for Spiritual Satisfaction Model

Coefficients	<i>B</i>	β	<i>t</i>	<i>p</i>	Collinearity Statistics	
					Tolerance	VIF
Constant	42.56		5.34			
Gender	4.04	.153	2.06	.041	.936	1.07
Religious Affiliation	-3.00	-.114	-1.51	.133	.909	1.10
Longevity	.263	.085	1.15	.253	.932	1.07
Academic Achievement	2.02	.142	1.57	.119	.625	1.60

CHAPTER V

DISCUSSION

Student evaluations in educational institutions are not a new occurrence. The first teacher rating scale was published in 1915 and was followed by a series of studies exploring student evaluations on the effectiveness of teachers, courses, and the educational experience as a whole (Wachtel, 1998). Identifying factors influencing student satisfaction can provide feedback to school leaders for making decisions to create a superior learning environment and consequently a more successful student. With much of the attention in education today focused on achievement of the student for success, leaders can forget satisfaction of the student is a critical component. To assist with essential satisfaction feedback the researcher developed the HSSQ instrument for this study.

The focus of this study was to determine if gender, religious affiliation (church Christ versus non-church of Christ), academic achievement measured by GPA, longevity measured by years, and college readiness measured by ACT composite scores have a predictive effect on academic, social, faculty, and spiritual satisfaction for 12th grade students in four private schools, associated with the churches of Christ, in Arkansas. A quantitative, nonexperimental, strategy using regression analysis was utilized in this study. The convenient sample included male and female 12th grade students in four private, Christian schools associated with the churches of Christ in the state of Arkansas.

In this chapter, a summary of the findings, significance, and implications of this study will be presented. In addition to this, recommendations for practice, policymaking, and consideration of future studies will be provided.

Conclusions

A quantitative, nonexperimental, strategy using regression analysis was utilized in this study. The independent or predictor variables were gender, religious affiliation (church of Christ versus non-church of Christ), academic achievement measured by GPA, longevity measured by years, and college readiness measured by ACT composite scores. The criterion variable for Hypothesis 1 was academic satisfaction, for Hypothesis 2 social satisfaction, for Hypothesis 3 faculty satisfaction, and for Hypothesis 4 spiritual satisfaction, all for 12th grade students in four private, Christian schools in Arkansas. This study determined the accuracy of predictor variables in explaining the criterion variables. It also provided an indicator of the percentage of variance on the criterion variables explained by predictor variables and showed how well they explained the variation. It was discovered that gender and religious affiliation were notable predictor variables, while GPA, longevity, and ACT scores were less notable.

Hypothesis 1

The first hypothesis stated that no predictive effects will exist between gender, religious affiliation (church of Christ versus non-church of Christ), academic achievement measured by GPA, longevity measured by years, and college readiness measured by ACT composite scores on academic satisfaction for 12th grade students in four private, Christian schools in Arkansas. An analysis of this hypothesis using a regression model indicated that the overall model significantly predicted academic

satisfaction. However, the model accounted for only 10.5% of variance in academic satisfaction, and only two predictors, gender and church affiliation, significantly contributed to the model. Because of the low variance percentage, it can be determined the model was useful, but with this combination of predictors it provided an explanation at a limited level. Due to the statistical significance indicated by the analysis, the null hypothesis was rejected. It is very likely that other predictors, or a combination of predictors, may provide a better explanation of what might predict academic satisfaction.

Hypothesis 2

The second hypothesis stated that no predictive effects will exist between gender, religious affiliation (church of Christ versus non-church of Christ), academic achievement measured by GPA, longevity measured by years, and college readiness measured by ACT composite scores on social satisfaction for 12th grade students in four private, Christian schools in Arkansas. An analysis of this hypothesis using a regression model indicated that the overall model significantly predicted social satisfaction. However, the model accounted for only 8.6% of variance in social satisfaction, and no individual predictors significantly contributed to the model. Because of the low variance percentage, it can be determined the model was useful, but with this combination of predictors it provided an explanation at a limited level. Due to the statistical significance indicated by the analysis, the null hypothesis was rejected. It is very likely that other predictors, or a combination of predictors, may provide a better explanation of what might predict social satisfaction.

Hypothesis 3

The third hypothesis stated that no predictive effects will exist between gender, religious affiliation (church of Christ versus non-church of Christ), academic achievement measured by GPA, longevity measured by years, and college readiness measured by ACT composite scores on faculty satisfaction for 12th-grade students in four private, Christian schools in Arkansas. An analysis of this hypothesis using a regression model indicated that the overall model did not significantly predict faculty satisfaction. Out of the four models, faculty satisfaction was the most unclear. The model accounted for only 5.5% of variance in faculty satisfaction, and only one predictor, gender, significantly contributed to the model. Because of the low variance percentage, it can be determined this combination of predictors provided an explanation at a limited level. Due to the statistical significance indicated by the analysis, the null hypothesis was not rejected. It is very likely that other predictors, or a combination of predictors, may provide a better explanation of what might predict faculty satisfaction.

Hypothesis 4

The fourth hypothesis stated that no predictive effects will exist between gender, religious affiliation (church of Christ versus non-church of Christ), academic achievement measured by GPA, longevity measured by years, and college readiness measured by ACT composite scores on spiritual satisfaction for 12th-grade students in four private, Christian schools in Arkansas. An analysis of this hypothesis using a regression model indicated that the overall model significantly predicted spiritual satisfaction. However, the model accounted for only 8.8% of variance in spiritual satisfaction, and only one predictor, gender, significantly contributed to the model.

Because of the low variance percentage, it can be determined the model was useful, but with this combination of predictors it provided an explanation at a limited level. Due to the statistical significance indicated by the analysis, the null hypothesis was rejected. It is very likely that other predictors, or a combination of predictors, may provide a better explanation of what might predict spiritual satisfaction.

Implications

The findings of this study revealed that several factors, the ones mentioned in this study, and future factors to be researched, could have an influence on student satisfaction. The research in this study was conducted in a unique setting of four private Christian schools. All four of these schools depend vitally on student enrollment and subsequently their tuition dollars in order to sustain an existence to educate students. These private Christian schools are in competition for the same students that are attending public schools, charter schools, or are choosing to homeschool. Recruiting and retaining students involves communicating the school's mission and vision to the prospective and current stakeholders. After sharing the philosophy with them, the administrator must listen to their unique insights into what they as students and parents truly find important and satisfying with the school and what they do not. Then, the educational leader takes these findings and guides strategic decision-making to improve the educational program. The educational leader and the private Christian school as a whole hope the community in which the school operates will take notice, embrace the valuable consumer satisfaction, and enroll their children in the effective school system.

According to Rumberger (2002), researchers have found the most effective strategy is to improve the quality of the school so students experience satisfaction with

their learning environment. Many definitions exist that speak to the idea of quality in education, demonstrating the complexity and comprehensive nature of the concept. The terms efficiency, effectiveness, value and excellence can be used to describe a quality education. The basic premise for a school to be successful in the aspects surrounding education is that it must satisfy their students, or they will go elsewhere.

This study investigated four areas of satisfaction that students encounter with the high school experience. Data collection was limited to four private Christian schools in Arkansas affiliated with the churches of Christ. Academic, social, faculty and spiritual satisfaction were categories the students gave their opinions. The results from the students of the four schools involved indicated that the students were generally satisfied with their educational experience.

Recommendations

Potential for Practice/Policy

While this study was centered on private, Christian schools affiliated with the churches of Christ in Arkansas, replicating this study could be beneficial to public schools in Arkansas. Two very notable issues that Arkansas public schools must consider in order to sustain fiscal and educational relevancy are Act 60 and school choice. Kees (2012) discussed the Arkansas school consolidation Act 60 in the following manner:

In 2002, the Arkansas Supreme Court resolved a decade-long suit in which the constitutionality of the state's public-school funding was questioned. The Arkansas Supreme Court ruled that the Arkansas education delivery system inadequate and inequitable, finding the state had failed at its responsibilities to:

- (1) develop what constituted an adequate education;
- (2) assess, evaluate, and

monitor if adequate education was being afforded to Arkansas's school children; and (3) oversee state revenue expenditures and determine whether true equality had been achieved. The court's finding forced the Arkansas General Assembly to reevaluate the structure of the state's public-school funding and to bring it in line with the state's constitutional requirement of maintaining a "general, suitable and efficient system of free schools." Thus, the Arkansas General Assembly introduced Act 60, which became law on January 29, 2004. (p. 382)

Kees (2012) went on to state Act 60 required the administrative consolidation or annexation of school districts with an average daily membership of fewer than 350 students for two consecutive years. Bernet (2012) reported since the consolidation legislation was passed in 2004, 118 different school districts have joined through consolidation or annexation resulting in 54 consolidated school districts. With this merger, it reduced the number of school districts from 308 in 2003 to 240 as of August 2010, a decrease of 68 districts.

School choice is the other significant issue Arkansas public schools must take into account when facing declining enrollment. Simply stated, school choice removes the traditional boundaries between school districts giving families the opportunity to enroll in schools best suited to their needs regardless of geography. If students are not satisfied with the educational programs their local school offers, they have the right to look elsewhere for their education. The intended result of the school choice program has been to send a message to the ineffective public schools to pay attention to the surrounding more successful public, charter, or private schools. The ineffective school must improve

the quality of education to meet the needs and satisfy the educational desires of their students so they can and retain students.

With Act 60 and school choice programs causing school districts to look internally at the effectiveness of their educational system, it makes sense for these schools to gather feedback from their stakeholders as to their satisfaction with the system. Educational leaders could modify the HSSQ instrument used in this study or search for other applicable instruments to fit their unique school setting. Effective educational leaders will then identify their weaknesses so they can correct them and communicate their strengths so they can unite behind them.

Future Research Considerations

When studying predictors of satisfaction in high school students, a study could be conducted in a public or charter school setting. This alteration could allow the researcher to determine the causes of growth or decline in student enrollment. Results could also offer school leadership insight into effective or ineffective practices. If this study were to be replicated in the public or charter school setting then religious affiliation of the student would need to be eliminated as a predictor.

This study could also be conducted in other parochial school organizations like Catholic, Baptist, or other religiously affiliated schools. The predictor of church affiliation could still be used and determined if it qualifies as a meaningful predictor. Further research may clarify if the predictors used in this study need refining or discover more discerning predictors not identified in the study that may have more impact on student satisfaction.

Finally, it may be beneficial for future research to compile a larger sample of students or a cross-section of students. The results from this study showed the majority of students surveyed from the four schools to be generally satisfied. It is likely that the high satisfaction scores reported by students created difficulty for the model to discriminate the differences in the outcomes. This will provide data to investigate a broader level of aspects in student satisfaction.

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APPENDICES

APPENDIX A

Permission to Conduct Research

November 14, 2012

Harding University Institutional Review Board
c/o Office of Human Subjects
Box 12261
Searcy, AR 72143-2261

Please note that Darren Mathews, Harding University Doctoral Student, has the permission of [REDACTED] to conduct research at our facilities for his study, *Factors Predicting the Satisfaction of 12th Grade Students in Christian Schools*.

Mr. Mathews had contacted my office by phone during the fall semester of 2012 to recruit [REDACTED] for his study. He will re-contact my office by phone during the week of March 4, 2013 to establish a timeline for the study. [REDACTED] has agreed to allow a sample of high school 12th grade students to complete a survey regarding student satisfaction in their school. The survey will be administered by a research assistant in a classroom setting, during the school day. The on-site activities will be completed by March 29, 2013.

Mr. Mathews has agreed that students will not miss any class time, beyond the time needed to complete the survey. If there is a need for additional students to complete the survey, Mr. Mathews has agreed to seek permission from me.

Mr. Mathews has agreed to provide my office with a copy of the Harding University IRB-approval letter before determining the students to be involved in the study. He has also agreed to provide a copy of any study results.

If there are any questions, please feel free to contact my office.

Respectfully,

[REDACTED]
Superintendent

[REDACTED]

APPENDIX B

Status of Request for Exemption from IRB Review



Status of Request for Exemption from IRB Review

(For Board Use Only)

Date: November 30, 2012

Proposal Number: 2012 – 122

Title of Project: Factors Predicting the Satisfaction of 12th Grade Students in Christian Schools

Name and Contact information for the Principal Investigator: Darren Mathews, dmathews@harding.edu

- Research exempted from IRB review.
Research requires IRB review.
More information is needed before a determination can be made. (See attachment.)

I have reviewed the proposal referenced above and have rendered the decision noted above. This study has been found to fall under the following exemption(s):

- 1 [] 2 [x] 3 [] 4 [] 5 [] 6 []

In the event that, after this exemption is granted, this research proposal is changed, it may require a review by the full IRB. In such case, a Request for Amendment to Approved Research form must be completed and submitted.

This exemption is granted for one year from the date of this letter. Renewals will need to be reviewed and granted before expiration.

The IRB reserves the right to observe, review and evaluate this study and its procedures during the course of the study.

Rebecca O. Weaver

Chair
Harding University Institutional Review Board

APPENDIX C

High School Satisfaction Questionnaire

Participation is voluntary, refusal to participate will involve no penalty, and participants may discontinue participation at any time without loss of benefits to which they otherwise would be entitled. In filling out the survey, you are acknowledging your consent to participate in the study. All surveys are coded to protect confidentiality.

Thank you for taking the time to answer the following questions.

General Information

Gender

Male

Female

What is the name of the school you attend?



Including this year, how many years have you attended your present school? _____

- If you transferred, did you transfer from a Private School
 Public or Other School
 I did not transfer

How many times have you taken the national ACT test? _____

What is your highest composite score on the ACT test? (possible range = 1 – 36) _____

What range would your average high school GPA fall?

- below 2.0 (D or F)
 2.0-2.49 (C- to C)
 2.5-2.99 (C to C+)
 3.0-3.49 (B- to B)
 3.5-4.0 (B to A+)
 greater than 4.0 (A+ or greater)

Are you a member of the church of Christ?

- Yes
 No

Section 1

Please rate your overall satisfaction with the school you attend by indicating your level of agreement with each of these statements.

	Strongly Disagree	Disagree	Disagree Somewhat	Neutral	Agree Somewhat	Agree	Strongly Agree
1. I am satisfied with the challenging nature of my classes.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. I am satisfied with the expectations my school has of me to learn.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. I am satisfied with the value my school puts on learning.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. I am satisfied with the course offerings at my school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. I am satisfied with the use of technology at my school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. I am satisfied with the classrooms facilities at my school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. I am <u>NOT</u> satisfied with the lab facilities at my school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. I am satisfied with the organized extracurricular experiences at my school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. I am satisfied with the safe and secure learning environment at my school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. I am pleased that the facilities at my school enhance the learning environment.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please rate your overall satisfaction with the school you attend by indicating your level of agreement with each of these statements.

	Strongly Disagree	Disagree	Disagree Somewhat	Neutral	Agree Somewhat	Agree	Strongly Agree
11. I am glad the guidance counselor at my school helps my academic process.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. I am satisfied with the way my school is helping to improve my computer skills.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. I am satisfied with the way my school is helping to improve my writing skills.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. I am satisfied with the way my school is helping to improve my reading skills.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. I am satisfied with the way my school is helping to improve my math skills.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. I am satisfied with the way my school is helping to improve my science skills.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17. I am satisfied with the way my school is helping to improve my social study skills.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Section 2

Please rate your overall satisfaction with the school you attend by indicating your level of agreement with each of these statements.

	Strongly Disagree	Disagree	Disagree Somewhat	Neutral	Agree Somewhat	Agree	Strongly Agree
18. I am satisfied with the encouragement from my school to get involved in activities that help others in my community.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19. I am <u>NOT</u> encouraged by my school to get involved in extracurricular activities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20. I am satisfied with the way my school helps with my life problems that are unrelated to school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
21. I am glad there is a high degree of school spirit at my school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
22. I am satisfied with the overall quality of my sense of belonging at my school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
23. Attending an athletic event adds to my overall satisfaction with my school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
24. Participation in a club activity increases my overall satisfaction at school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
25. I am glad participation in athletics increases my sense of belonging at my school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
26. I am pleased with the number of close friends I have at school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
27. I am satisfied with the way parents are welcomed at my school	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Section 3

Please rate your overall satisfaction with the school you attend by indicating your level of agreement with each of these statements.

	Strongly Disagree	Disagree	Disagree Somewhat	Neutral	Agree Somewhat	Agree	Strongly Agree
28. I am satisfied with the way my teachers are interested in helping me learn.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
29. I am satisfied with the way there is mutual respect between teacher and student at my school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
30. I am satisfied with the way there is mutual trust between teacher and student at my school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
31. I am NOT satisfied with the quality of teaching at my school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
32. I am satisfied with the way my teachers are accessible when I need extra help with school work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
33. I am satisfied with the way the administration promotes academic excellence at my school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
34. I am satisfied with the friendliness of my teachers at my school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
35. I am satisfied with the friendliness of the secretaries at my school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
36. I am satisfied with the helpfulness of the guidance counselor at my school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
37. I am satisfied with the supportive nature of the principal at my school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Section 4



Please rate your overall satisfaction with the school you attend by indicating your level of agreement with each of these statements.

	Strongly Disagree	Disagree	Disagree Somewhat	Neutral	Agree Somewhat	Agree	Strongly Agree
38. I am satisfied with the way my school has helped me in developing my faith in God.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
39. I am pleased that my school is assisting me in becoming more Christ-like.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
40. I am NOT satisfied with the positive Christian environment at my school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
41. I am satisfied with the way my teachers help my faith grow.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
42. I am satisfied with the way my administrators care about my spiritual growth.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
43. I am satisfied with the affirmation of praise my teachers give me at my school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
44. I am satisfied with the positive Christian attributes in my teachers that I admire.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
45. I am glad my teachers actively incorporate a biblical worldview as they teach their subjects.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
46. I am satisfied with the way my teachers demonstrate their faith. i.e. (class prayers, scripture reading, and devotional thoughts.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
47. I am satisfied with the way my school is focused on finding ways to help me grow spiritually.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>