

A CAUSAL COMPARATIVE ANALYSIS OF BIBLICAL WORLDVIEW AMONG
GRADUATE STUDENTS BASED ON CHRISTIAN SCHOOL ATTENDANCE

by

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Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

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ABSTRACT

One of the primary objectives of the Christian school (K-12) is the development of a biblical worldview in its students. This study examined the impact that these Christian schools had on their students' biblical worldview development by administering a biblical worldview assessment to graduate students at a private, Christian university (Liberty University). Christian, graduate students in the School of Education at Liberty completed a demographic survey and a biblical worldview assessment. The survey collected information on age, gender, type of K-12 schools attended, profession to the Christian faith, and denominational background. The results of the survey and assessment were analyzed to determine if there was a significant difference in the biblical worldviews of Christian students who had a substantial Christian school background when compared to Christian students who had a minimal Christian school background and to those who had no Christian school experience. This causal comparative (ex post facto) study employed one-way analysis of variance (ANOVA) and a post-hoc Tukey test to determine if there were any significant differences between the means of the pre-determined groups and if the null hypotheses should be accepted or rejected. An informational survey was created to capture selected demographic data and the *Three Dimensional Worldview Survey – Form C (3DWS-Form C)* was used to assess biblical worldview. Participation by the graduate students was both voluntary and anonymous. Results of the study showed that there was no statistically significant difference in participants' biblical worldview scores based on their attendance in Christian school. Portions of the study did indicate that there might be a disposition to a stronger propositional biblical worldview for individuals with a significant Christian school background. Further research should explore this disposition with recently graduated participants.

Keywords: biblical worldview development, faith-learning integration, Christian School.

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List of Abbreviations

Analysis of Variance (ANOVA)

Association of Christian Schools International (ACSI)

Honestly Significant Difference (HSD)

National Study of Youth and Religion (NSYR)

New American Standard Bible (NASB)

New International Version (NIV)

Politics, Economics, Education, Religion, Social Issues (PEERS)

Statistical Package for the Social Sciences (SPSS)

Three Dimensional Worldview Survey (3DWS)

CHAPTER ONE: INTRODUCTION

Background

Christian schools exist for a variety of reasons. Some are strongly oriented toward academic excellence with a vigorous focus on college preparation and graduates' enrollment into upper-tier universities. These schools have embraced Scriptures like Colossians 3:23, "Whatever you do, do your work heartily, as for the Lord rather than for men" (New American Standard Bible), and 2 Corinthians 10:5, "We are destroying speculations and every lofty thing raised up against the knowledge of God, and we are taking every thought captive to the obedience of Christ" (NASB). The mission and focus of these schools is on intellectual achievement. Other Christian schools are decidedly more concerned with discipleship in the faith and concentrate primarily on students' spiritual development. The Scriptures at the center of this missional perspective and paradigm are found in Ephesians 6:4, "Fathers, do not provoke your children to anger, but bring them up in the discipline and instruction of the Lord" (NASB), and Deuteronomy 6:6-7:

These words, which I am commanding you today, shall be on your heart. You shall teach them diligently to your sons and shall talk of them when you sit in your house and when you walk by the way and when you lie down and when you rise up. (NASB)

Lastly, a number of Christian schools endeavor to capture the best of both approaches by creating a healthy, middle ground between them that provides a holistic emphasis and develops the whole child: mind, soul, heart, and body.

Regardless of their individual emphases, one of the primary distinctives of Christian schools is to instruct, guide, and disciple students in the development of a biblical worldview. From Frank Gaebelein's (1995) articulations of faith-learning integration in the early years of the

modern Christian school movement to James Sire's (2009) and James K. A. Smith's (2009) current thoughts on biblical worldview development, Christian schools have purposefully endeavored to foster the merger of faith and intellect in the development of their students' worldview. Therein lies the problem addressed in this study: While Christian schools have long promoted the development of a biblical worldview as one of their primary distinctives and essential advantages over other types of schools, little study or research has been done to determine the extent to which that biblical worldview development may or may not be happening (Boerema, 2011; Iselin & Meteyard, 2010). It is a problem that many Christian educators are reluctant to address for a variety of probable reasons. Apprehension, apathy, and avoidance are some of the primary ones. The bottom-line question is "Are Christian school educators doing what they say they are doing when it comes to biblical worldview development or are they not?" Does attending a Christian school influence biblical worldview development? That is the problem and question that this study addressed.

This research study sought to determine if Christian students with a substantial Christian school background developed a biblical worldview that was significantly different when compared to Christian students who had a minimal Christian school background or to Christian students who had no Christian school experience. This first chapter introduces the proposed study, offering background to the study, presentation of the problem and purpose statements, and the significance of the study, along with the research question, hypotheses, variables, definitions, assumptions, and limitations.

Since the turn of the 20th century, the American church has found itself in a position of needing to respond to a shifting, American culture that continues to separate itself from biblical principles in its philosophical foundations. One of the responses of the church to this

philosophical and cultural shift, especially in reformed and evangelical circles, has been the development of Christian schools (Pazmino, 1990). Though some Christian schools were in operation in the first half of the 20th century, it was not until the latter half that Christian schools became a significant part of the educational landscape and a viable alternative for Christian families. While there were many factors that drove the sizable growth of Christian schools during the American cultural revolution of the 1960s and 70s, one of the core principles driving their development was the opportunity to educate students in a way that integrated faith and learning, forming in them the foundations for a biblical worldview (Gaebelein, 1995).

For the past forty or so years, Christian schools have continued to develop and explore this idea of faith-learning integration, now more often referring to it as the development of a biblical worldview. Although this objective has become a frequently expressed distinctive of Christian schools, and one which is oft discussed, explored, and deliberated, it is not one that has been empirically studied with any consistent frequency (Boerema, 2011; Iselin & Meteyard, 2010). Unfortunately, the Christian school community has a culture that demonstrates an aversion to research and study. There is much talk, discussion, and theorizing within that community, but few actionable initiatives from it that question, test, and examine. Badley (2009) has said that if Christian scholars do not engage in empirically assessing faith-learning integration, “We are simply using a slogan and, literally, mean nothing by it” (p. 16).

The Dayton Agenda (2009), a research agenda that was developed in 1997 by a group of individuals associated with non-public schools to fill the critical gaps in the knowledge base surrounding non-public schools, further illustrates this reluctance of the Christian school community to engage actively in research. Many of the gaps identified in that original document

existed due either to a reluctance or lack of diligence within the Christian school community to do scholarly research. Twenty years later, a number of those critical gaps still exist.

There is no, one, agreed upon definition for biblical worldview, and that factor likely contributes to an overall reluctance to engage in research concerning its development. There is no consensus or common understanding of biblical worldview among Christian scholars or the Christian school community in general. Current literature suggests several different considerations of how Christian scholars understand biblical worldview ranging from an emphasis on adherence to propositional statements, to everyday practical application, to all-encompassing holistic development, and to development and practice in the dynamics of community (Barrows, 2014; Pearce & Denton, 2011; Quinn, Foote, & Williams, 2012; Schultz & Swezey, 2013; Smith, 2009).

Recent studies show that adolescents today are interested in spiritual matters and make the mature distinction between religion and its trappings and genuine spirituality (Pearce & Denton, 2011). It behooves the Christian school community to see how its efforts to develop a biblical worldview in students tie into that research. Barrows (2014), Brickhill (2010), Bryant (2008), Rutledge (2013), and Taylor (2009) have conducted research that examined the effect of Christian schools on students' worldview, but much more remains to be done. Taylor's research, which he conducted within one, local, Christian school setting, indicated that both the influence of Christian school community and the number of years attending a Christian school positively affected Christian worldview development. Bertram-Troost, de Roos, and Miedema (2007) studied a European, Christian, secondary school and suggested that the school setting influenced students' worldview development. And Bryant examined the biblical worldview development of students from Christian schools in a southern, regional setting and found that the responses

garnered in that study demonstrated a consistent, orthodox doctrine that was, however, inconsistently reflected in students' behavior.

While each of these studies contributed valuable information to the existing knowledge base, more research needs to be done on a broader scale to acquire a full and accurate understanding of the impact Christian schools have on biblical worldview development. Further study will not only bring insight to the effect Christian schools have on students' worldview development, but it will also bring attention to the methodologies and approaches that schools currently use to effect it. These studies will inform any need to sustain, change, expand, or abandon current practices and understandings of worldview development.

Problem Statement

Given this background and the paucity of scholarly research concerning the success or failure of biblical worldview development in Christian schools, this study addressed the following problem: Although one of the primary distinctives of Christian schools is instructing and discipling students in the development of a biblical worldview, it has not been determined if Christian students with a substantial Christian school background developed a biblical worldview that was significantly different when compared to Christian students who had a minimal Christian school background or to Christian students who had no Christian school experience (Barrows, 2014; Rutledge, 2013; Taylor, 2009; Weider, 2013). The existing lack of empirical research prevents knowing the extent to which biblical worldview development is or is not happening in Christian school students (Badley, 2009; Iselin & Meteyard, 2010). Little tangible evidence exists to assess if what Christian school educators are doing in the name of biblical worldview development, as well intentioned as it may be, is at all effective (Boerema,

2011). Such a lack of research and evidence results in a very simple but crucial question: does attending a Christian school influence biblical worldview development?

Purpose Statement

The purpose of this causal comparative (ex post facto) study was to gather empirical data, on a broader base than had previously been done, to evaluate the impact Christian schools in general have had upon their students' biblical worldview development. It sought to determine if Christian students with a substantial Christian school background developed a biblical worldview that was significantly different when compared to Christian students who had a minimal Christian school background or to Christian students who had no Christian school experience. This study compared the results of a biblical worldview assessment given to Christian, graduate students at a prominent, private, Christian university to determine if there were statistically significant differences in their biblical worldview based on the following categories: substantial Christian school background; minimal Christian school background; and no Christian school experience. The hope was to add beneficial information to the current knowledge base surrounding biblical worldview development that will enable Christian school educators to evaluate and improve their methodologies, practices, and perspectives in developing their students' biblical worldview and integrating faith and learning (Badley, 2009; Boerema, 2011; The Dayton Agenda, 2009).

Significance of the Study

This study showed itself to be significant for several reasons. First, it added information that was drawn from a broader population than previous studies have used. Most previous studies used a localized population that focused on one, specific Christian school or one locale (i.e. city, town, or region) (Barrows, 2014; Brickhill, 2010; Bryant, 2008; Rutledge, 2013;

Taylor, 2009; Weider, 2013; Welch, 2008). The population in this study included participants whose K-12 experience was from a variety of locations and regions, allowing for broader application and generalization of the study's results.

Second, the timing of the worldview assessment at this particular stage of the participants' lives (i.e., graduate students at a Christian university) evaluated their worldview at a time and place that highlighted, challenged, and advocated biblical worldview development. This situation created greater self-awareness for the participants for how their personal worldview may or may not align biblically and what formative elements may have contributed to its development. This set of circumstances provided a prime opportunity to assess the worldview they developed through high school and how it was now manifesting itself.

Third, the results of this study helped to fill the critical knowledge gap that currently exists surrounding biblical worldview development and faith-learning integration (Badley, 2009). Christian school educators and scholars now have additional information and data that not only added substance to their discussions but also gave them the means to expand their understanding of biblical worldview development and to evaluate their methods, procedures, and perspectives in light of their mission and vision (Barrows, 2014; Boerema, 2011; Morrow, 2015).

Finally, the study's results informed the discussion concerning the extent of biblical worldview development in Christian school students and generated additional information for evaluating the effectiveness of Christian schools in their efforts to foster biblical worldview development. Are Christian schools actually doing what they proclaim to do? Are they accomplishing what they stated to be one of their core distinctives (Badley, 2009)? The results of this study could be an impetus for examination, development, and change that positively

affects Christian educators' understanding and practice of the integration of faith and learning to the benefit of students and their biblical worldview development.

Research Questions

The research questions for this study arose from the following problem statement that prompted this research effort: It has not been determined if Christian students who had a substantial Christian school background developed a biblical worldview that is significantly different when compared to Christian students who had a minimal Christian school background or to Christian students who had no Christian school experience. Boerema (2011) noted that little research has been done to determine the effectiveness of the biblical worldview development practiced in Christian schools. Christian scholars have not engaged the study of biblical worldview development in Christian school students, resulting in a dearth of available research and information (Badley, 2009; Iselin & Meteyard, 2010). The few studies that have been done produced mixed findings that necessitate additional research (Barrows, 2014; Rutledge, 2013; Taylor, 2009; Weider, 2013). The overarching research question that drove this study was both broad and straightforward: does Christian school attendance influence biblical worldview formation? The more detailed research questions that follow sought to address the problem statement and this general question.

RQ1: Is the biblical worldview of Christian students who spent a substantial amount of time attending Christian school in middle/high school significantly different from the biblical worldview of Christian students who had no Christian school background?

RQ2: Is the biblical worldview of Christian students whose Christian school experience was minimal (less than three consecutive years beyond grade 6 or only at the elementary/middle

school level) significantly different from the biblical worldview of Christian students who had no Christian school background.

RQ3: Is the biblical worldview of Christian students who spent a substantial amount of time attending Christian school in middle/high school significantly different from the biblical worldview of Christian students whose Christian school experience was solely in elementary or middle school?

Null Hypotheses

H₀1: There will be no statistically significant difference in the biblical worldview of individuals who are professing Christians who spent a substantial number of years (three or more consecutive beyond grade 6) attending Christian school(s) compared to those professing Christians who had no Christian school background.

H₀2: There will be no statistically significant difference in the biblical worldview of individuals who are professing Christians whose Christian school experience was minimal (less than three consecutive years beyond grade 6 or only at the elementary/middle school level) compared to those professing Christians who had no Christian school background.

H₀3: There will be no statistically significant difference in the biblical worldview of high school graduates who are professing Christians whose Christian school experience was at the middle/high school level (three or more consecutive years beyond grade 6) compared to those professing Christians whose experience was solely in elementary or middle school.

The independent (predictor) variable in this study was the length and type of K-12, Christian school experience that Christian, high school graduates, who were now graduate students at a private, Christian university, had experienced. The categories applied to this variable were as follows: substantial Christian school background (three or more consecutive

years beyond grade 6); minimal Christian school background (less than three consecutive years beyond grade 6 or only at the elementary/middle school level); and no Christian school experience. The dependent variable in this study was biblical worldview as measured by a biblical worldview assessment instrument, the *Three Dimensional Worldview Survey – Form C (3DWS-Form C)* developed by Katherine G. Schultz (2010) and validated by Kathy Lynn Morales (2013). The author granted permission for the use of this instrument.

Definitions

Four terms needed to be operationally defined to clearly establish the parameters of this study: biblical worldview, faith-learning integration, Christian school, and Christian (person). While Christian scholars and educators cannot agree upon a definition for biblical worldview, for the purposes of this study, the following operational definition, which was crafted from a variety of current perspectives and definitions, was applied: A *biblical worldview* is a system of biblical beliefs, concepts, and principles that applies to all of reality. It tells us what the world is like, how we should live in it, and becomes the determiner of our decisions and actions (Esqueda, 2014; Pearcey, 2004; Quinn et al., 2012; Sire, 2009; Smith, 2009).

Faith-learning integration is the presentation of all instruction that occurs in an educational institution – curricular, co-curricular, and extra-curricular – from a biblical worldview perspective. Faith-learning integration holds that all truth is God’s truth and that there is no separation between sacred and secular truth. Truth is truth, and that truth is a seamlessly integrated whole, encompassing all of life and finding its source in Christ Jesus (Gaebelein, 1968).

The operational definition for *Christian school* rested upon the self-reporting of the participants in the demographic surveys they submitted. The survey did not present a definition

to the participants as to what constituted a Christian school. The respondents were asked to report on their Christian school experience, if any, leaving it to the respondents to determine if the school they attended was a Christian school. Thus, the reporting may have included evangelical protestant schools, traditional protestant schools, Catholic schools, and so forth.

A definition was provided in the demographic survey for the participants on what was meant in self-identifying as a *Christian*. In the surveys, participants were asked to identify if they were a “professing Christian” and then a description of that term followed: accepted Jesus Christ as your personal savior. That description was the operational definition for a Christian in this study.

The research design for this quantitative study was causal comparative (*ex post facto*) employing one-way between group analysis of variance (ANOVA) and a post-hoc Tukey test. This design was chosen because the study examined one independent variable (Christian, high school graduates) with three categories (significant Christian school experience [three or more consecutive years beyond grade 6], solely elementary/middle Christian school experience, and no Christian school experience) and one dependent variable (biblical worldview). Using analysis of variance (ANOVA) this researcher tested for significant differences between the means of the pre-determined groups. Analysis of variance was the most appropriate statistical tool for this causal-comparative study: one independent variable with more than two categories and one continuous dependent variable (Best & Kahn, 2005; Gall, Gall, & Borg, 2007). Following the ANOVA, a post-hoc Tukey test was run for each of the three research questions to determine if biblical worldview was different between the specific groups targeted in each research question.

This study was initiated with several assumptions concerning both the sample population and the results of the study.

- The population tested would be a representative sample of the general population of Christians who had graduated from high school.
- The sample population would contain a sufficient number of participants with K-12 Christian school experience to give validity to the study.
- The results of the assessment given to adult graduate students would accurately reflect the influence of K-12 education regardless of both the length of time that has passed since high school graduation and their educational experiences since that graduation.
- Students would accurately report their demographic data.

Selection was a concern because of the uncertainty surrounding the accessibility to and inclusion in the study of students representing a variety of regions and backgrounds. The population might not have been as broad or diverse as it should have been to generalize or apply the conclusions reached to other settings. Secondly, the survey did not have the capacity to distinguish or consider all the variables that could affect biblical worldview development in this population of graduate students. Finally, a self-selected population of students might have skewed the results of the assessment, as they could have been predisposed in their thoughts and attitudes toward Christian schools and/or biblical worldview development.

CHAPTER TWO: LITERATURE REVIEW

Introduction

One of the primary objectives of the Christian school is the development of a biblical worldview in its students. The efforts to integrate faith and learning through curriculum design, methodologies, and school policies and procedures are ultimately intended to enable students to form that biblical worldview. However, while this is a major objective of almost all Christian schools, there is a significant lack of research and literature that examines the level of success these schools have in achieving that goal (Boerema, 2011; Iselin & Meteyard, 2010; Schultz & Swezey, 2013). As Boerema (2011) bluntly states it: “Too many Christian school leaders are skeptical about the importance of research” (p. 43). Such a lack of research and evidence results in a very simple but crucial question: does attending a Christian school influence biblical worldview development? Hence, the purpose of this particular study was to determine if there was a significant difference in the biblical worldview of Christian students who had a substantial Christian school background when compared to Christian students who had a minimal Christian school background and to Christian students who had no Christian school experience as measured by a biblical worldview assessment. The core research question that emerged from that purpose and drove this study was this: Was the biblical worldview of students who spent a substantial amount of time attending Christian schools(s) significantly different from the biblical worldview of Christian students who had no or minimal Christian school background?

The review of literature for this study began with an overview of the theoretical foundations behind worldview development. It then provided further conceptual background by examining the historical development of both Christian schools and the concepts of faith-learning integration and biblical worldview formation. With a theoretical and historical

framework in place, the review then offered an examination of current perspectives in the literature concerning faith-learning integration and biblical worldview formation that focused on the concepts of active engagement, practical application, holistic emphasis, and community dynamics. The review concluded with an examination of some of the scholarly research that had been done in recent years concerning biblical worldview development and adolescent worldview in general.

Theoretical Foundations

A general understanding of identity, moral, and religious development in the natural growth and maturation of human beings is a necessary prerequisite to a discussion of worldview development. That understanding provides not only a conceptual framework for a discussion of worldview development but also a means for discerning how individuals form and adopt their particular worldview. Furthermore, it gives insight for effectively shaping and supporting healthy worldview development in the academic, spiritual, emotional, and social spheres inherent to the education and engagement of K-12 students.

The core experience to the psychological development of a human being is the development of individual identity, and the development of that individual identity establishes the foundation for moral, spiritual, and religious formation. Two individuals in particular proposed the essential theories and concepts that provide the groundwork for most current discussions of identity development. Psychoanalyst Erik Erikson (1950, 1959, 1968) theorized that human, psychosocial development occurred in a series of eight, progressive stages in the normal course of a person's growth and maturation. Developmental psychologist, James Marcia (1966) later responded to Erikson's proposed stages, supporting them in essence, but creating

categories and statuses within those stages that both expanded upon and adjusted some of Erikson's ideas and observations.

Erikson (1950) posited that human, psychosocial development occurred in a series of eight, distinct stages, each one building upon the other. However, it should be noted that Erikson believed that one could advance from one stage to the next without mastering or successfully completing the previous stage. He also maintained that each stage could be later altered or adjusted when an individual was presented with situations or circumstances pertaining to that stage's unique characteristics. While he defined development in stages, Erikson's approach was actually a holistic, organic one, which gave leeway for fluidity among the stages.

A key concept in Erikson's (1950, 1959, 1968) theory was that exploration, experimentation, and conflict are necessary parts to identity development. One's success in working through the conflicts and crises particular to each of the stages determines the corresponding strength and condition of identity. "*Crisis* is now being accepted as designating a necessary tuning point, a crucial moment, when development must move one way or another, marshaling resources of growth, recovery, and further differentiation" (Erikson, 1968, p. 16). As it pertains to the development of worldview in students, much of this working out of identity rests upon an individual's commitment and formation of bonds to values and perceptions (Erikson, 1968). Students in K-12 schools are dealing with existential questions (Who am I? Why am I here?) at each stage of development (Erikson, 1968). The conflicts they work through and the commitments they make as a result of those struggles create a basis for the worldview they adopt.

The fifth stage in Erikson's (1950, 1959, 1968) theory is crucial, and pertinent to this discussion, for it is the crossroads piece that bridges the individual's development from

childhood to adulthood. That fifth stage is Adolescence, and identity formation is at the center of the crisis that typifies this stage (Erikson, 1968). It is at this point in development that a person works through the role confusion that results from conflicts among self-perception, sociocultural expectations, and biological forces (Erikson, 1968). An awareness of this conflict and the struggle involved is key to engaging students as they begin to formulate their worldview as well. Realizing that adolescent students are dealing with significant levels of conflict and confusion can help determine both the method and the approach taken in effecting biblical worldview development in those formative years.

Marcia (1966) supported Erickson's identity theory, but saw the theory more specifically and aptly applied through multiple aspects or categories of an individual's identity (value structure, vocation, religious belief, and sexual outlook). He proposed four identity statuses that classify the maturity levels of identity development in those categories: identity diffusion, identity foreclosure, identity moratorium, and identity achievement (Marcia, 1966). According to Marcia, an individual's developing maturity is determined by two factors: crisis and commitment. Crisis is the moment when an individual is confronted with a circumstance that requires an examination of beliefs, philosophies, and roles and an exercising of one or several of those to successfully address the circumstance. Commitment arises from a crisis situation and leads to the adoption of an adherence to a specific belief or role (Marcia, 1966).

Marcia's (1966) identity statuses are then defined by an individual's experiences within each of the defined categories. Identity diffusion results when one has not yet encountered a crisis and has little to no commitment; identity foreclosure occurs when a person has again not encountered a crisis, but has taken the step of commitment; identity moratorium is that state of development where a person has encountered crisis, but has yet to make a definitive commitment

(yet); and identity achievement is that condition in which the individual has encountered crisis and reached a commitment. Each of these stages is typified by specific behaviors and attitudes that Marcia identified.

Identity development in these stages demonstrates how worldview formation takes shape as individuals explore a variety of beliefs, principles, and positions in adopting their personal foundations for successfully managing life circumstance and crises. Values and beliefs are developed, molded, and embraced as individuals experience the conflicts and crises that life presents. Worldview formation is not a simple cognitive event in which information and propositions are learned and accepted. Identity development theory indicates that it is life experiences (crises) and the commitments resulting from them that shape worldview, biblical or otherwise. Information and ideas presented in a classroom can only provide reference points for the decision-making (commitments) that students make and the worldview they adopt.

It should also be noted that Marcia (1966) saw identity development as spiral rather than linear. While he supported Erikson's (1950, 1959, 1968) theory of the eight stages and himself defined four identity statuses within those stages, he saw identity development as flexible and dynamic. It is not a static or lock-step process, but a fluid one that needs to be viewed with a lifetime perspective for its ongoing resolution and maturation. This is an essential understanding, as this characteristic would apply as well to worldview development. Because of its natural relationship to identity development, worldview development would also be fluid in its formation, subject to ongoing change and refinement.

The theories that support identity development provide the first conceptual layer behind worldview development, but there is a second conceptual layer upon which worldview development rests and that is the theory of moral development. It would be quite difficult to

discuss worldview development without first acknowledging and understanding that moral development (the formation and adoption of standards and principles in distinguishing right from wrong) provides the foundation for worldview formation. And while there are numerous theories surrounding moral development, most connect to Lawrence Kohlberg and Richard Hersh and the research they began in the 1950s, in which they identified six stages of moral development (Kohlberg & Hersh, 1977).

Kohlberg & Hersh observed that “moral reasoning develops over time through a series of six stages (orientations)” (p. 54). These stages occur in three distinct levels. The first level is the preconventional level and includes the punishment and obedience orientation and the instrumental-relativist orientation. This level is typically applicable to young children whose moral choices are determined by physical and pragmatic factors. The second level is the conventional level and includes the interpersonal concordance or, as it was stated, “the good boy-nice girl orientation” and “the law and order orientation” (Kohlberg & Hersh, 1977, p. 55). Typically, this level and these two stages occur in children between the ages of 10 to 13. At this level, children are beginning to recognize that there is an order to society and following and respecting that social order is valuable even if doing so may not serve their own immediate needs. Kohlberg & Hersh’s third level - the postconventional, autonomous, or principled level - presents the final two of the six stages: the social-contract legalistic orientation and the universal-ethical-principle orientation. This third level recognizes the emergence of an individual’s ability to formulate and process moral concepts abstractly. It is the next step in moral development in which moral decisions are determined, not by an external social order, but by an internally formulated set of ethics and principles. While this postconventional level begins to occur during

adolescence, Kohlberg & Hersh note that many individuals do not complete their way through the conventional level to even get to the fifth or sixth stage.

In considering moral development as the foundation for worldview development then, it is important to recognize, especially in K-12 education, Kohlberg & Hersh's stages and the manner in which a student's moral development may affect his/her worldview development. Kohlberg & Hersh's theory indicates that the adolescent students whose worldview Christian educators are attempting to shape could be at a variety of levels in their moral development. If they are still at the second (conventional) level, then they will not be ready for the abstract processing of moral concepts, and biblical worldview formation designed to that end will not be effective. An approach to Biblical worldview development in both middle and high school that is flexible and designed to engage students who are at either the second or third level would seem to offer the most promise.

Kohlberg & Hersh's six stages of moral development aid in understanding and addressing worldview development, but these stages also provide additional insights pertinent to worldview development in a K-12 setting. They believe that schooling is a moral enterprise and that "the aim of education ought to be the personal development of students toward more complex ways of reasoning" (Kohlberg & Hersh, 1977, p. 55), so that they have the means for addressing difficult moral issues. It should be noted that they are advocating for the development of complex reasoning skills (form) and not the presentation of a set of moral principles (content) - a key concept to be considered in developing methodologies and practices for biblical worldview development. They also echo Marcia's identity development theory in that they believe moral development is encouraged by situations of crisis and conflict that force individuals to critically reason and judge. Moral reason, according to Kohlberg & Hersh, develops as an individual

interacts with his/her environment and resolves the complex problems that interaction presents. This observation seems to indicate, as it did in the earlier discussion of identity development, that crisis and conflict play a significant role in biblical worldview development and should be considered by Christian educators as they create methods for aiding students in forming a biblical worldview.

Kohlberg & Hersh may be the primary figures in moral development theory, the fathers of the field, but there are others who have contributed significantly to this ongoing study. William Damon (1999) affirmed Kohlberg & Hersh's model, but noted that it did not explain an individual's behavior for either good or bad. He was concerned with not just cognitive development and moral reasoning but with the commitment to those principles and values that would result in one acting in accord with them. He recognized that "moral knowledge will not be enough to impel moral action" (Damon, 1999, p. 159). He developed a definition of moral identity that included both the moral principles by which a person defines himself and the resolve to act upon those principles. He extended Kohlberg & Hersh's theory by moving beyond the internal development of a concept of right and wrong and by exploring how concept translated into action and behavior.

In his examination of moral identity, Damon (1999) recognized that there is a multiplicity of factors that contribute to its acquisition; however, Damon also highlighted three sources of considerable influence: parents, peers, and community. According to Damon, parents are the original – and most significant – source of moral guidance and serve as such while the child resides in the home. He also acknowledged the strong influence of peer relations upon moral identity and urged parents to encourage healthy and appropriate peer relationships for their children: "One of the most influential things parents can do is to encourage the right kinds of

peer relations” (Damon, 1999, p. 159). He also attached great significance to the effect of community on the formulation of moral identity. This community is made up of parents, teachers, coaches, pastors, business owners, and so forth, and contributes to healthy moral identity development when there is a consistency of expectations among them. What he referred to as “harmonious communities” (Damon, 1999, p. 161). But while communities have great potential to contribute to the development of strong moral identity, Damon pointed out that in current western culture, community members are reluctant to exert influence. Engaging in personal, direct influence in the lives of unrelated children and adolescents can be seen as interfering in another’s personal business (Damon, 1999). In addition to the three major influences that Damon identified, it has also been found that a child or adolescent’s self-awareness of his/her moral and spiritual formation contributes to healthy spiritual and moral development (O’Grady, 2006). That self-awareness is a catalyst for healthy growth as it leads to purposeful change and commitment.

Damon (1999) offers several observations that directly apply to biblical worldview development. His observation that moral knowledge is not sufficient to compel someone to act morally, once again indicates that the presentation of information (principles and values) to a student is insufficient for shaping moral or worldview development. Biblical worldview development cannot be treated as a primarily cognitive or intellectual exercise. Damon also suggests several means by which worldview development can be effected: parents, peers, and community. These observations and concepts offer an opportunity to engage in biblical worldview development that has a strong foothold in the theories that also undergird both identity and moral development.

James Fowler (1981) affirmed Piaget’s (1936) theories of cognitive development and

Kohlberg & Hersh's (1977) stages of moral development and applied them to the formulation of his faith development theory. Faith development goes a step further than moral development in that it focuses on the adoption of a particular set of principles and values (content) in assigning meaning to life and not the cognitive process (form). In his theory, Fowler identified six stages that he believes are sequential, invariant, and hierarchical. These stages range from "undifferentiated faith" in infancy to "universalizing faith" that occurs at middle age or later (Fowler, 1981, p. 118).

The stages that most coincide with K-12, school-age children are the second, mythic-literal (ages 7-12), and the third, synthetic-conventional (ages 12+). The second stage represents a literal period in which symbols and metaphors are often misunderstood and justice and reciprocity are core beliefs. The third stage sees the emergence of an individual's religious identity and a reluctance to deal with inconsistencies in those beliefs. Both of these stages strongly coincide with Kohlberg & Hersh's (1977) preconventional and conventional stages in recognizing that there is a shift from the concrete (the law and black-and-white issues) to the abstract (principles and moral discernment). Fowler (2001) also recognized that these identified stages are not complete and identified certain faith types (totalizing, rational critical, conflicted or oscillating, and diffuse) that need to be included with the stages to make them more complete and descriptive.

The research and theories that have emerged in the areas of identity, moral, and faith development have given rise to the next logical level of investigation: religious identity development. Religious identity is defined here as the connection and commitment one makes to a particular religion, traditional or non-traditional, and the bond created to that group. Contemporary researchers (Baltazar & Coffen, 2011; Bertram-Roost et al., 2006; Fisherman,

2002; Miedema, 2010) have built upon the work of Erikson (1950, 1959, 1968), Marcia (1966), Kohlberg & Hersh (1977) and others to study religious identity development, with particular attention on children and adolescents.

One of the consistent ideas in religious identity development that has significant connection to previous developmental research is the notion that crisis and commitment are essential to the healthy development of religious identity. Doubt involving one's religious beliefs and the crisis it inevitably creates moves the individual to exploration and the healthy development of a religious identity. Doubt is not a negative. It is a catalyst for positive growth as it allows the individual to reconcile the crisis and deepen commitment (Baltazar & Coffen, 2011). "It may be that doubt . . . may be one of the fundamental elements necessary for religious identity achievement" (p. 188). Religious identity development is directly related to the amount of exploration an individual engages in and the ongoing changes in commitment that result. This development does not follow a prescribed pattern. It takes place over an entire lifetime and is influenced by multiple variables that lead in a variety of directions (Bertram-Troost, de Roos, & Miedema, 2006). The role of doubt and the need for exploration and its resultant ongoing changes in commitment would apply as well to biblical worldview development and should be another consideration in how that development is practically approached.

Fisherman (2002) recognized three categories in religious identity development: healthy, unhealthy, and dangerous. These categories are related to the nature of an individual's exploration and successful or unsuccessful reconciliation of behavior and beliefs. In constructing these categories, Fisherman directly aligned them with Marcia's (1966) four stages. He identified healthy development with identity moratorium and identity achievement and unhealthy development with identity diffusion and foreclosure. He then saw the potential for

both diffusion and foreclosure to regress to an entrenched condition and become a dangerous religious state. As with Marcia's stages, these conditions are dependent upon the individual's opportunities to engage crises as well as their willingness to make a commitment concerning those crises.

Several factors have been identified that significantly impact religious identity development and bear great similarity to the factors that were identified in impacting moral identity development. Just as Damon (1999) found that parents had the greatest impact on the moral identity development of their children, it has also been found that parents' level of religious commitment along with their strength of affiliation with a particular denomination serve as significant influences on adolescents' religious beliefs (Bertram-Troost et al., 2006; Ozorak, 1989). Damon's concept of a harmonious community also finds connection to religious identity development as school setting has been found to influence students' religious beliefs and behaviors. Specifically, it is the nature of the religious environment in a school that impacts religious identity development, especially when students identify with that particular religious environment (Barrett, Pearson, Muller, & Frank, 2007). And in completing the final connection to Damon's three significant influences on moral identity development (parents, peers, and community), Ozorak (1989) observed that the degree of influence that peers have on adolescents' religious beliefs has been difficult to assess due to the number of variables involved.

Miedema (2010) recognized that a healthy society must provide both the opportunity and the means for all students to have healthy religious identity formation. This concern did not advocate for a particular religion or faith. The individual determines that religious identity. He simply recognized religious identity development and "multi-religious or interreligious education" (p. 255) as a necessary component for societal health in the 21st century. Miedema

advocated for religious citizenship education in schools to meet this need, believing that it is the schools that bear this responsibility.

Worldview development is a natural outgrowth of moral and religious identity development. It grows naturally out of one's moral and religious identity because it is a set of presuppositions about reality, about the ideas, concepts, and principles that one believes in and through which one sees the world (Esqueda, 2014; Plantinga, 2002; Sire, 2009). "It is a spiritual orientation more than it is a matter of mind alone" (Sire, 2009, p. 20). Worldview finds its home in the self – it is tied to one's identity: psychosocial, moral, and religious. It is the core foundation from which one resolves the crises that situations and environment present in the daily experiences of life. "A worldview is a commitment" (Sire, 2009, p. 20).

Conceptual Framework

To grasp the context and culture of Christian schools and their common objective of guiding students in the development of a biblical worldview, a brief review of the history of Christian schools in the United States is a vital prerequisite. Christian schools, as they exist today, find their philosophical and theological roots in the early 20th century when conservative Christians responded to the modernist, liberal, progressive education that was developing in the public school system because of John Dewey's influence (Gangel & Benson, 1983). It was during this time period that the term *fundamentalist* was coined to describe those conservative Christians who were associated with a series of booklets called *The Fundamentals* that affirmed traditional Christian doctrines in response to modernist ideas of evolution and the liberal movement (Pazmino, 1990). Christian schools in this era were certainly the exception and not the norm, but the conflict between orthodox Christianity and liberal modernists that emerged established the necessary conditions for their future advent.

As early as 1922, under the leadership of Reverend John F. Carson, The Stony Brook School opened. Carson, moderator of the General Assembly of the Presbyterian Church, U.S.A., wanted to establish a college-preparatory school that was committed to the sanctity of Scripture and the centrality of Christ (Lockerbie, 1994). The first headmaster of Stony Brook was the significantly inexperienced, but theologically sound and passionate, Frank Gaebelein (1995), who would later become a co-editor of Christianity Today and, in 1951, the author of the National Association of Evangelicals' statement on Christian education (Gangel & Benson, 1983). It is Gaebelein (1968) who became the most prominent spokesperson for modern Christian school education, establishing and advocating its philosophical emphasis on the Bible and the Lordship of Jesus Christ as the foundational pillars of education (Pazmino, 1990). Gaebelein (1968) further developed the thoughts and premises of his original statement on Christian education in his foundational explication of faith and learning integration, *The Pattern of God's Truth: Problems of Integration in Christian Education*.

In that work, Gaebelein (1968) declared the need for Christian school education to be actively integrating faith and learning instructionally through sound Christian teachers and thoroughly biblical curriculum while also furthering a biblical worldview within both its organizational functions and its students. The key concept at the center of his writings was one he shared with Augustine (2014): the assertion that all truth is God's truth, and there is no dichotomy between the sacred and the secular.

This concept of faith-learning integration was further developed by Lois LeBar (1989), who expanded Gaebelein's (1968) cognitive emphasis to include faith-learning integration that was not only biblical in content but also active and experiential for the student. Further amplification of the concept of faith-learning integration and biblical worldview formation in the

last quarter of the 20th century came through individuals like Lawrence Richards, who advocated a holistic approach that has faith-learning integration taking place within the context of socialization and community (Pazmino, 1990). Gene Getz, while sharing Richards' notion that there needed to be an alternative approach to education and discipleship, was influenced by the educational aspects of the Great Commission in Matthew 28 and contributed a significant perspective that emphasized evangelism and edification (Gangel & Benson, 1983).

These individuals are just a sampling of the many spokespersons who have emerged in the past 40 years bringing emphasis and clarity to the notion of faith-learning integration and biblical worldview formation. These four, however, do represent the significant streams that have developed and that still influence how Christian scholars and educators think about and practice biblical worldview development. With this brief excursion through a condensed history of Christian school development and thought as a backdrop, the following synthesis of the precedent literature and examination of some of the more current thoughts and contributions can be presented and understood with greater perspective.

Core Literature

While the volume of research done on the methods and outcomes of faith-learning integration and biblical worldview formation may be lacking, there is certainly no shortage of opinions and theories concerning them. This review will look at four of the currently more prominent theories and viewpoints that emerge from a study of the existing literature: active engagement, practical application, holistic emphasis, and community dynamics.

Dr. Lois LeBar (1989) was one of the first Christian school spokespersons to give voice to the notion that faith-learning integration should be an active exercise which students experience and not simply a transmission of information to be passively absorbed. Dr. LeBar

has her modern day disciples in the circle of Christian school scholars who continue to advocate for a more organic and less mechanistic form of integration and worldview formation (Mittwede, 2013; Reichard, 2013; Thomson, 2012). These individuals are supported by recent studies which have shown that the notion of faith-learning integration is mistakenly seen by students as something that the teacher does. “Students who are studying to be teachers seem to consider integration of faith and learning as primarily a teacher activity” (Lawrence, Burton, & Nwosu, 2005, p. 43). Integration and worldview formation should be a result of a student’s engagement with the material and ideas in a critical thinking process (Gardner, 1999). Students need to not only see biblical integration taking place in the thoughts and actions of their teacher, but to actually do the integration that they see being modeled. “Most attempts to integrate faith and learning have emphasized the curriculum, the teacher, and scholarly writing, rather than the student as the locus of integration” (Bailey, 2012, p. 155). Students should be given the tools to engage in that integration themselves (Henze, 2006). In short, worldview formation should not simply be a passive exercise of listening and rote memorization.

Students need to develop ownership of those integrated thoughts and be equipped to engage life reflectively with biblical truths and principles in practicing lifelong faith-learning integration. Students need the opportunity to wrestle with the material. They need to be actively examining, analyzing, and questioning the ideas and concepts presented in the classroom, working through it all as they would a lump of clay that they wish to fashion into something useful, aesthetic, and personal (Markette, 2011; Thomson, 2012).

If faith-learning integration is simply a passive observation or the pre-masticated delivery of another’s thoughts, it falls short of the transformational power of God’s Word and the work of the Holy Spirit that can and should take place in the integration of faith with learning.

Integration should result in action (Bolt, 1993). It should result in transformation (Crenshaw, 2013; Lewis, 2015; Smith, 2009). “Ultimately, the goal is for teachers to guide students to transfer learning to life outside the classroom” (Baumann, 2010, p. 34).

The goal of faith-learning integration is the active development of a biblical worldview, not merely the accumulation of information (Esqueda, 2014; Schultz & Swezey, 2013; Welch, 2008). It is that development of a biblical worldview that opens the door for transformation. The merger of faith, learning, pedagogy, policy, procedure, and structure should bring one to the place of Christian worldview praxis (Quinn et al., 2012). It should not be a mere, mental exercise but a framework and impetus for conduct and action. This is not to minimize or ignore the roles that cognitive recognition and understanding play in faith-learning integration and worldview development, but to highlight the reality that those aspects merely lay a foundation for real transformation creating a pathway to genuine initiation into the traditions of the faith and worldview transformation (Mittwede, 2013; Reichard, 2013).

Some current proponents of biblical worldview development see this more active approach as a necessary tool for engagement in culture wars with those whose worldview stands in opposition to a biblical worldview. While it is no mere, mental exercise for them, it is more the fashioning of a weapon than the nurturing of a source for wisdom and understanding (Moseley, 2003). Being able to defend one’s faith is certainly an admirable and necessary skill; however, the value of faith-learning integration and a sound biblical worldview is diminished when it is seen primarily as a culture-war club. Their primary purpose should concentrate on the replication of the life and nature of Jesus Christ with all else subservient to that one goal (Cox, 2011).

Just as faith-learning integration and biblical worldview formation should be an active process, it should also be a call to act. A person's worldview shapes the way that person lives (Bolt, 1993; Esqueda, 2014; Plantinga, 2002; Sire, 2009). A biblical worldview is intended to have practical application. This is the second of the currently prominent emphases in worldview and integration literature. In his seminal writings, Gaebelein (1968) put an emphasis on application. He stressed the notion that this set of beliefs formed by faith-learning integration and this framework for perceiving the world needed to be walked out. It could not be a strictly academic process, but needed to find its value in application.

Viewing faith-learning integration as a cognitive or academic activity perpetuates the false dichotomy that many evangelicals perceive between matters of the head and the heart (Blomberg, 2013; Esqueda, 2014). "The integration of faith and learning . . . conveys a false dichotomy" (Esqueda, 2014, p. 91). Esqueda (2014) further identifies a biblical worldview "as the foundation for the integration of faith and learning and the unifying factor to combat religious compartmentalization" (p. 92). Genuine, biblical worldview thinking cannot take place unless the mind is surrendered and submitted to the will of God (Pearcey, 2004). While some choose to approach faith-learning integration as a mental event, it is only authentic if it is changing one's character (Cox, 2011). An individual can relegate it to be strictly a mental exercise, but it is then only a shell, lacking the substance and significance that come when one embraces it with a surrendered mind and heart. Blomberg (2013) notes: "We have seen that informing the intellect is inadequate for the formation of persons: inviting students to respond affectively and willingly is required" (p. 72). Substance and significance are found through practical and personal application (Pearcey, 2004). This approach needs to be taken in classrooms and institutions that are committed to faith-learning integration and biblical

worldview formation. Teachers and students must understand that integration and worldview formation (faith) without application (works) is dead (James 2:20, King James Version).

One of the steps in the process of integration and worldview development that is necessary to move from cognitive embrace to observable application is the action of commitment. Once an individual has gone through the cognitive exercises of awareness and understanding, those elements can only effect change if they are accompanied by a substantive commitment of the heart and will (Groome, 2011; Reichard, 2013). It is a process that starts with the head (cognitive), moves to the heart (commitment), and results in tangible acts (hands) (Blomberg, 2013; Naugle, 2002; Schultz & Swezey, 2013; Sire, 2004).

While personal application of faith-learning integration and a biblical worldview is an idea that has been prominent for a while, many current scholars are advocating for an application that goes beyond the personal or individual. They are calling for a societal application that focuses on impacting culture and community (Lee & Givens, 2012). Christians are directed throughout the Scriptures to be other-oriented. To embrace a worldview that only applies to or affects oneself is without Scriptural foundation, running contrary to biblical principles. In the light of Scripture, it is clear that a biblical worldview impacts how one interacts with those in their neighborhood, their local community, and the society at large (Blomberg, 2013; Francis & Sion, 2014; Plantinga, 2002).

One of the broad goals of a Christian school education is to graduate students who are accomplished critical thinkers and can serve as a “prophetic witness” to the current culture (Bailey, 2012). While some Christians and Christian schools advocate a separatist and isolationist posture toward society and culture, most evangelical Christians do engage the culture

at some level as witnesses for Christ. A sound biblical worldview can only improve that witness and open the door for the Holy Spirit to do His redemptive work.

Christian schools need to close the gap between their mission and their day-to-day practice, that is, the school's biblical worldview and its application (Boerema, 2011). Schools, as organizations within a local community, establish relationships with members of that community and interact with the local culture. Schools, too, are prophetic witnesses and need to take great care in modeling their application of a biblical worldview to their local community. The very students they nurture in faith-learning integration are watching them (Bailey, 2012).

Lee and Givens (2012) believe that Christian schools need to focus not just on the development of a biblical worldview that is applicable to society, but on the development of a "Christian conscience" (p. 195). This conscience goes beyond the academic exercise of faith-learning integration and beyond the personal application of a biblical worldview to addressing the social issues and the problems of the day. There is a great emphasis on life within a community and the compulsion a Christian conscience should have in attending to the needs and injustices that exist in that community. It is a worldview and a conscience that values cooperation and togetherness in the creation of a whole, healthy community.

The third area of emphasis that was a recurrent theme in the literature was in the development of a holistic approach toward faith-learning integration and biblical worldview formation. The thought process in advocating for this holistic approach follows an historic and linear progression. Gaebelein (1968) stressed a predominantly cognitive, rationalistic approach to faith-learning integration. LeBar (1989) developed Gaebelein's (1968) initial concept to include student experience and active involvement, giving integration greater vibrancy and appeal. Richards and Getz took the next step to include alternative approaches beyond the

classroom in non-formal education settings and the local church community (Pazmino, 1990). The next natural and reasonable development is to recognize the full nature of the individual and totality of his/her positional setting and view faith-learning and biblical worldview formation as a holistic venture (Blomberg, 2013; Iselin & Meteyard, 2010; Mathisen, 2003; Naugle, 2002; Schultz & Swezey, 2013, Sire, 2004; Smith, 2009).

One of the issues that the holistic approach to faith-learning integration addresses is the false dichotomy of the head and the heart. Current western Christianity often distinguishes between head knowledge and heart knowledge, between the logical and the intuitive. It is common to hear references to the separation of the two in both casual conversations and sermons from the pulpit. Most Christians are unaware that Scripture consistently speaks of the unity of the individual and the wholeness of a person. It emphasizes the oneness of human nature. In accord with this biblical perspective, advocates of the holistic approach see the integration of faith and learning as encompassing both the head and the heart (Mittwede, 2013; Pearcey, 2004). Human beings are unified entities, and the separation of different aspects of the whole of human nature is simply unrealizable (Esqueda, 2014; Iselin & Meteyard, 2010). This holistic approach is also an incarnational one as our words become flesh through the actions in which we engage: actions that demonstrate humility, wholeness, community, and intimate relationship. “An incarnational approach toward worldview seeks to celebrate . . . the dynamic dance of faith and learning in an authentic, contextualized, and holistic manner” (Iselin & Meteyard, 2010, p. 37). It is an approach that endeavors to encompass the varied aspects of human nature by also including story-telling, mystery, and paradox as part of the full integration of faith and learning.

Schultz and Swezey (2013) have captured the historic progression in thought concerning worldview development and have noted that there is now a holistic, three-dimensional concept

which many scholars are coming to embrace: a propositional conception, a behavioral, and a heart-orientation. Naugle (2002), Sire (2004), and Smith (2009) hold similar viewpoints and demonstrate the shift that faith-learning integration and biblical worldview development have undergone in recognizing that it is a transformational process involving the whole of a person. It is not just cerebral or behavioral or heart-oriented (Moore, 2014). It is all.

A key aspect of heart-orientation that is important to understand is that the reference to ‘heart’ is not one of just emotion but of will and spirit. It coincides with the Hebraic notion of heart as the comprehensive core of a human being that captures will, intellect, and affections (Iselin & Meteyard, 2010; Naugle, 2002). This understanding of heart is consistent with the notion of commitment that Groome (2011) and Reichard (2013) addressed. Commitment goes far beyond mere mental assent. This commitment represents a person’s willingness to submit his or her will and affections to the truth, authority, and greater good offered by a biblical worldview and to embrace it with gratitude, fondness, and reverence. It is the total, heart-felt acceptance of a way of thinking, acting, and feeling that reflects the person and nature of Christ.

Taking a holistic approach to faith-learning integration also involves expanding the boundaries to which one normally applies a biblical worldview to include the specific social settings in which each person functions and lives. It requires the individual to drill deeper into faith-learning integration in applying it to complex social situations. Faith-learning integration is not a one-size-fits-all proposition. Every individual has a number of social roles that he or she manages: professional, familial, within the church community, within the neighborhood, and so forth. Occasionally, some of those roles will intersect, and one finds oneself operating in more than one role at a time and struggling to approach the situation with a biblical worldview framework. We are forced to adapt our integration and worldview within an unfamiliar social

context (Mathisen, 2003). It takes a personal, hands-on application of faith-learning integration to learn to manage the variety of social situations and roles one faces.

One of the areas that a holistic approach addresses, which again runs directly into aspects of western Christianity's head and heart dichotomy, is the role of the affective: emotion, creativity, and the intuitive. If one's faith-learning integration is going to be valid, if a biblical worldview is to be viable and effective, it must include all aspects of human nature and apply to the affective portion of one's humanity as much as it does to the cognitive. Faith-learning integration is not just a cognitive exercise. It is not just informative, but it is formative. It should change; it should transform (Crenshaw, 2013; Mittwede, 2013; Smith, 2009). In approaching faith-learning integration with this type of holistic perspective, worship becomes a significant consideration for integration and worldview formation. Bringing the affective portion of human nature into the picture requires that one consider the place of transformation and of worship. In borrowing from Augustine, Smith (2009) encapsulates this notion with the statement that "what defines us is what we love" (p. 25). The affective nature is part of the make-up of all human beings and cannot be ignored or pushed aside simply because it may be difficult to capture and measure. It needs to be incorporated into faith-learning integration and into each person's biblical worldview formation.

The fourth and final current emphasis that this review of literature will examine is the role of community in faith-learning integration and biblical worldview formation. Much has been said already in this review concerning the importance of applying faith-learning integration and one's biblical worldview toward the communities, the culture, and the society in which one lives. What has not been addressed yet is the role that community plays in informing one's faith-learning integration and worldview. No one lives in isolation and the relationships that are

developed, and in which one engages, contribute significantly to the development of one's biblical worldview (de Kock, 2015; Long, 2014; Vryhof, 2004).

While everyone's experience of faith-learning integration and worldview formation is affected and influenced by the communities in which they live, work, socialize, and learn, this phenomenon is especially powerful in the lives of adolescents. In the adolescent years of mental and emotional maturation and spiritual formation, the influence of peers and significant adult mentors is substantial (de Kock, 2015; Pearce & Denton, 2011; Taylor, 2009). At a point in their lives when adolescents are challenging or even rejecting the beliefs and value systems that were instilled in them by their parents, church, school, and other traditional or institutional groups, their immediate communities carry significant influence in their personal processing and internalization of beliefs and values. For this reason, adolescents need to be surrounded by communities of meaning which are healthy and functional so they can integrate and formulate their worldview and value system in a supportive, moral, and principled environment (de Kock, 2015; Vryhof, 2004). Expecting them to develop a sound biblical worldview and to integrate faith and learning appropriately in a dysfunctional environment is not reasonable and highly unlikely.

With information obtained from the first and second waves of the National Study of Youth and Religion (NSYR) conducted in 2003 and 2005, Pearce and Denton (2011) noted the importance of social scaffolding in the development of religiosity and spirituality in adolescents. In social scaffolding, "influential others serve as a support system while adolescents strengthen their internal sense of being" (p.182). Pearce and Denton found that adolescents who had been supported and mentored in a way that allowed them to have a measure of both freedom and guidance developed healthy and sound religious/spiritual attitudes and perspectives. The

presence of a functional, meaningful community is not enough. That community must allow the adolescent room to explore, process, question, and formulate issues of faith and values while providing a level of support and mentoring that can guide their thoughts and assist them in working through difficult concepts and problematic situations. To put this in the Christian vernacular, adolescents need discipleship that is both open and available so they can personally integrate their faith with learning and develop a sound biblical worldview.

Another aspect of the NSYR and Pearce and Denton's (2011) analysis of it that is particularly meaningful for Christians and those involved in ministry to youth and faith-learning integration is the distinction that many adolescents made between religiosity and the trappings of religion. The study showed that youth have remained or become more religious during their adolescent years. However, how the youth perceive and define "religious" involves some key concepts. They make a clear distinction between religious conduct, content, and centrality. In other words, they recognize that there are levels of religiosity: surface (religious practices), involved (thoughtfully engaged in religious substance), and committed (religion is central to all I do). These results are encouraging in that they indicate that youth are interested in spiritual matters and are able to distinguish between the trappings of religion and its essence. Faith-learning integration and biblical worldview formation will have appeal to youth who have a desire for a substantive spirituality. And while current media frequently portray a declining religiosity among Millennials, the Austin Institute for the Study of Family and Culture (2014) made this observation.

While many popular accounts of religious behaviors suggest a lack of religious zeal among Millennials, it is not clear whether this is indicative of a secularizing trend among young people or if it is simply reflective of longstanding patterns of religiosity over the

life course. (p. 10)

Like all other adolescents, Christian youth are impacted by their community(ies) as they engage in faith-learning integration and formulate their worldview. The strongest and most developed biblical worldview will be found in those Christian youth who have been engaged in meaningful, engaging faith communities (youth groups, Christian school community, discipleship groups, etc.) that contributed to and guided their social learning (Long, 2014; Taylor, 2009). Communities and relational groups that allowed for and encouraged linked lives have significant influence on biblical worldview development (Taylor, 2009; Vryhof, 2004). The relational partnerships that Christian youth engage in within their individual communities strongly and positively affect their faith-learning integration. These partnerships are with both peers and adult mentors, and they serve as both discovery centers and sounding boards for Christian youth as they formulate their worldview.

Faith communities provide the opportunity for youth not only to receive instruction, but also to experience enculturation in a life of faith (Westerhoff, 2012). Instruction can take place without ever touching the heart, but enculturation molds and shapes that heart. Biblical facts, truths, and principles, the components of a biblical worldview, can be communicated in an instructional environment – Christian school, Sunday school, and parental guidance/teaching – but it is the lives of the adults in their faith communities that provide children and youth the more powerful and transformational lessons (de Kock, 2015; Parrett & Kang, 2009). It is the demonstration of a life-style, the living, breathing examples of what an integrated life looks like and how that life is lived out in relationship to others both within and outside of the faith community, that brings about enculturation and shapes heart-orientation. The role of community in faith integration and worldview development must be given its due. Enculturation within a

faith community is a crucial component for healthy biblical worldview development and is especially so for children, youth, and young adults as they progress through the stages of spiritual formation (Crawford, 2008; Mohler, 2013; Railsback, 2006).

Attendance at Christian school and being a part of the faith community that exists there is one of the key influences on a young person's moral, religious, and biblical worldview development. Mohler (2013) examined the spiritual development of second graders in an evangelical protestant Christian school and concluded that those students demonstrated a need for individual discipleship. Being a part of the community and experiencing enculturation would best be accomplished by the direct and intentional mentoring of children by their adult teachers. Such mentoring and discipleship, however, proves to be vital for adolescents as well (de Kock, 2015). In a study of schools and religious communities, de Kock (2015) pointed to "the increasing importance of individual believers (authorities) as well as flexible and fluid religious communities in their religious upbringing of a new generation of Christian youth" (p. 132). Adolescents need both authorities and communities in their pedagogical space if they are to develop healthy religious socialization, enculturation, and a thorough biblical worldview.

In summary, this portion of the literature review has examined four of the more prominent, current themes surrounding faith-learning integration and biblical worldview formation: active engagement, practical application, holistic emphasis, and community influence. The examination of these themes demonstrates that faith-learning integration and worldview formation are still works in progress. Much is yet to be learned surrounding the what, when, how, and how well of these concepts (Badley, 2009). The historical perspective shows how Christian scholars' understanding of these concepts, their applications, and their effects has expanded and transformed over time. It is only reasonable to assume that continued thought and

research will add to the existing knowledge base and that new understandings and perspectives will continue to emerge. This review will now continue with an examination of some of the scholarly research that has been conducted recently concerning biblical worldview development and adolescent worldview in general.

State of Current Research

One of the first things to note in a continued discussion of the literature surrounding faith-learning integration and biblical worldview formation is that there is no, one, accepted definition or understanding of faith-learning integration. There are varieties of understandings that are driven by philosophical and theological differences among Christian scholars (Badley, 2009). Those differing orientations will determine the definition of what it is and how to achieve it. Because of this, some scholars have suggested that the language of faith-learning integration be abandoned and replaced by a perspective that focuses on the “creation and redemption of scholarship” (Glanzer, 2008, p. 43).

Faith-learning integration is a concept whose definition is still expanding and being developed, and it is important to recognize that researchers and theorists are not all talking about the same thing when they reference it and that they may never. Faith-learning integration is one of those concepts (among many) that will be “an essentially contested concept, or is a concept subject to conception-building” (Badley, 2009, p 7). It may simply be one of those topics whose ongoing exploration and discussion adds life and vibrancy to the field of Christian education.

While agreement or consensus may not be reached concerning the definition of faith-learning integration, it is essential that clearer ways of assessing the degree to which it is being accomplished be found. While that may be an obvious undertaking to most educational researchers, the field of Christian school education has traditionally been reluctant to engage in

research and empirical self-examination (Boerema, 2011). There is a paucity of research surrounding faith-learning integration and biblical worldview formation that is startling (Iselin & Meteyard, 2010; Schultz & Swezey, 2013). Badley (2009) has suggested that if Christian scholars do not engage in assessing faith-learning integration, “we are simply using a slogan and, literally, mean nothing by it” (p. 16).

In 1997, a group of 140 individuals associated with non-public schools developed a research agenda called *The Dayton Agenda* to fill the critical gaps that existed in the knowledge base surrounding non-public schools. That agenda consisted of fourteen topics from which a variety of potential research questions were suggested (The Dayton Agenda, 2009). While some work has been done in attempting to fill those gaps, there is still much to do. It should be noted that two of the areas listed center on “Identity and Values” – the mission of the school and the integration of religion.

Some scholars have attempted to assess the success to which Christian schools affect religious development, but a number of those studies have been done outside of the United States and lack an evangelical perspective. Those studies showed that Christian schools have no significant effect on students’ religious commitment, but that students report that school influences their worldview (Bertram-Troost, de Roos, & Miedema, 2007).

Much study and research needs to be done. Fortunately, scholars in the United States have begun to recognize the gaps in research concerning Christian schools and have in recent years conducted a number of studies that are beginning to fill those gaps in the knowledge base. An examination of those studies reveals five specific factors concerning the formulation of a biblical worldview that consistently emerge in their findings and discussions: (a) religious practices, (b) personal faith commitment, (c) spiritual climate of the home and parents’ faith

commitment, (d) worldview programs and curriculum, (e) attendance in Christian schools or Christian colleges. While other factors are involved in biblical worldview formation, these five are most frequently mentioned and dominate the direction and discussions of most current studies. Each of these factors is discussed in the ensuing paragraphs.

Many of the recent studies examining biblical worldview development, both its formation and its level of pervasiveness, explored its connections to religious practices such as church attendance, participation in church youth groups, and Sunday school. Bryant (2008) in his study of high school students attending Christian schools in Georgia, North Carolina, and South Carolina determined that of the variables he examined only two showed to have statistically significant differences in relation to students' biblical worldview beliefs: "frequency of church attendance and denominational preference or grouping" (p. 99). Similar results were obtained by Wilkie (2015) in her predictive analysis of biblical worldview in college freshmen and by Brickhill (2010) in her study of biblical worldview development in Christian middle school students. Both studies found a statistically significant difference in students' biblical worldview for frequency of church attendance. Wilkie (2015) also determined that devotional Bible reading and the use of Christian textbooks made a statistically significant difference in students' biblical worldview. Long (2014) and Weider (2013) conducted studies in Christian schools that revealed that church participation aided in students' spiritual identity development and spiritual transformation. It needs to be noted, however, that Rutledge (2013), in a study that particularly targeted religious practices (Sunday worship services, youth group, and Sunday School), found there to be no statistically significant correlation between students' participation in these religious services and their biblical worldview scores as measured by the PEERS Worldview test. Conflicting results such as these make it difficult to determine if participation in religious

practices or services is or is not a significant factor in biblical worldview development. The weight of Rutledge's study in particular, which focused specifically on religious practices, makes it clear that more study and research in this area is needed.

Several studies probed more deeply into the possible religious and spiritual influences on biblical worldview development by examining not just physical participation in religious practices but the personal faith commitment that individuals had. This was an examination that looked beyond surface behaviors to determine if deeper spiritual conditions were significant factors in biblical worldview formation. Two studies in particular found there to be a statistically significant correlation between the depth of an individual's personal faith commitment – the depth of his or her relationship with Christ – and the strength of biblical worldview: Brickhill (2010) and Meyer (2003). In addition to determining that frequency of church attendance had a significant relationship to strength of biblical worldview, Brickhill also found that personal faith commitment was positively correlated to the composite worldview scores that middle school students attained on the PEERS worldview test. Meyer conducted a comparative analysis of factors contributing to the biblical worldview of Christian school students and found that the “personal faith commitment of the student, did show a statistically significant relationship in all seven worldview statements considered. This particular factor showed the most consistent influence of all the factors explored” (p. 170). The positive correlation noted by these studies seems to indicate that the mixed results obtained in the examination of religious practices (i.e., frequency of church attendance) may be interrelated with the depth of personal faith commitment and may offer an explanation for those mixed results. Physical church attendance is not necessarily an indicator for depth of personal commitment.

The third factor that was frequently mentioned in many of the recent biblical worldview studies was the spiritual climate of the home and parents' faith commitment. In their theories of moral development, both Kohlberg (Kohlberg & Hersh, 1977) and Damon (1999) clearly stated that the most significant influence on a child's moral development are the parents - the home and family - so it should not be surprising that they would be significant factors in biblical worldview development as well. In his micro-ethnographic study of the component parts of Christian high school students' biblical worldview, Van Meter (2009) stated, "One contribution of this study has been to affirm the precedence of the family unit over the Christian school in the development of a worldview belief system in the understanding of the student" (p. 74). Wilkie (2015) also found that the "spiritual home environment made a statistically significant difference in their [college freshmen] biblical worldviews" (p. 139). One study that specifically focused on the influence and role of the family in biblical worldview development was conducted by Perkins (2007). In that study, she found that "adolescents in families which engaged in moderate or strong family discipleship reported a significantly stronger Biblical worldview than those who reported weak family discipleship" (p. 128). In her study on spiritual stamina in Christian school graduates, Long (2014) also found that the role of the Christian home was a significant factor in students' spiritual identity development. Clearly the family, and in particular, the parents, are a significant factor in biblical worldview development and must be considered in any biblical worldview development theory or program a Christian scholar or school chooses to adopt.

That very formation of worldview programs and curriculum is the fourth factor that is most frequently mentioned or explored in many of the studies that have been done concerning biblical worldview development. These studies typically involve the introduction of a course, textbook, curriculum, or program to a group of students who are then tested or surveyed to

determine the effect of the intervention upon their biblical worldview. In general, these studies have mixed results as to the effectiveness of such programs and interventions. Cassidy (2001) introduced a worldview curriculum to high school students to increase their “confidence levels in confronting worldview issues and their perception of their ability to defend a Christian worldview in social and academic settings” (p. 97). The results of that project showed student gains in both knowledge and confidence levels. Positive change also occurred in the quasi-experimental study done by Markette (2011) involving students who participated in an online Christian worldview course. Her findings indicated a positive effect in the areas of “belief component and Christian walk” (p. 120). A third study done by Johnson (2004) evaluated the success of a biblical worldview development program for high school seniors and determined that significant changes occurred in student behaviors and values. However, not all studies resulted in such positive outcomes for biblical worldview development.

Barrows (2014) conducted a causal/comparative study of the effectiveness of a Christian worldview curriculum and found that students who had taken the course “were not revealed to be consistently more strongly committed to biblical teachings and doctrine in specific areas than those who had not taken the course” (p. 3). Similarly, Morrow (2015) engaged in a study “to examine to what extent an academic program course designed to impact Christian worldview affects undergraduate biblical Christian worldview” (p. 6). He, too, found that there was no statistically significant difference in the biblical worldview scores between the control group who did not take the course and the experimental group that did. Bryant (2008) determined that there was no significant difference in the biblical worldview of Christian high school students associated with the bible curricula that were employed in his study. In short, the effect of

worldview programs and curriculum have mixed results, and it needs to be determined through further research what makes one intervention effective and another one not.

The fifth and final factor that appears regularly in biblical worldview development studies is attendance in Christian schools or Christian colleges. This is an area of obvious interest for this study whose overarching research question was “Does Christian school attendance influence biblical worldview formation?” As with several of the previous factors, the findings of the studies done that include attendance at Christian schools and colleges as one of its variables show inconsistent results. For every study that shows attendance at these institutions to have a significant effect on biblical worldview formation, there is one that indicates the opposite.

Two studies that examine Christian school and Christian college attendance in their analysis come from Moore (2006) and Wood (2008). These studies are similar in that they both studied the biblical worldviews of Christian school educators, assessing influential factors in the formulation of their worldview as well as determining the worldview they hold. Both of these studies found that attendance at a Christian high school or Christian college showed no significant difference in the biblical worldview scores of the educators. Interestingly, Moore (2006) also found that the number of years an educator had been involved in Christian education had no significant difference. She also determined that “20% of administrators . . . hold a biblical theistic personal worldview . . . 71% hold a moderate Christian worldview and nine percent personally adhere to a secular humanistic worldview” (p.72).

Simoneaux (2015) conducted a comparative analysis of biblical worldview development between Apostolic students who were attending an Apostolic Christian college and those who were attending a secular college. Her analysis showed that the two groups did not significantly differ on biblical worldview. In similar fashion, Brickhill (2010) found that for the middle

school students she studied, the type of elementary school attended showed only small differences in PEERS test scores, and she determined that “there was not a significant relationship between school type and PEERS composite scores” (p. 62). Taylor (2009) studied the biblical worldview of twelfth grade students from “similar high school church youth ministries” (p. 11) attending both Christian and public schools. Those students who attended the Christian school received intentional biblical worldview training. He had two particularly interesting results to his study. First, he found no statistical significance in the worldview scores of the two groups, the Christian school students and the public school students. Second, he did find that there was statistical significance when comparing the public school students to those Christian school students who had been attending the Christian school for seven or more years. “It is important to note that these students were also in a school that provided specific worldview curriculum and they were active in their churches” (p. 127). More recently, Weider (2013) studied the spiritual development of Lutheran school students and found no statistically significant difference in the spiritual development of Lutheran school students versus public school students; however, unlike Taylor, he found no significant difference for years spent in attendance at Lutheran schools.

While the four studies above seem to indicate that attendance at a Christian school or college may not significantly affect biblical worldview formation, the most surprising study concerning the biblical worldview of Christian school students was done by Rutledge (2013). This study was an analysis of the correlation between Christian education provided by the local church (including Christian school) and the biblical worldview of its high school students. The results of this study for these 91 Christian school students showed that they “did not appear to represent the average student in America... the average of all the scores in the PEERS

Worldview test fell into the secular humanist category, significantly lower than the national average . . . a borderline socialist” (p.87). Not only was no statistically significant correlation found between the Christian education program of the local church and the students’ biblical worldview in this study, but the scores of these Christian school students were also far from being reflective of a biblical worldview. Such results continue to cloud the determination of the effect of attendance at a Christian school or college on biblical worldview formation.

The above studies, however, tell only one side of the research that has been done. There are also many studies that indicate that attendance at a Christian school or college has a statistically significant effect on biblical worldview formation. In his study of the relative importance of the component parts of biblical worldview for high school students, Van Meter (2009) found that “the intended outcome of the Christian high school to develop in the thoughts and beliefs of their graduates a strong commitment to a biblical worldview is largely but not entirely confirmed” (p. 72). Meyer (2003) in his analysis of the factors contributing to Christian school students’ biblical worldview noted that “students enrolled in Christian school held to a strong biblical position in virtually all the issues explored” (p. 163). However, contrary to Taylor (2009), he also found that there was not a “significant relationship or contribution from increased enrollment” (Meyer, 2003, p. 167).

Barrows (2014) noted the following in his causal/comparative study of the effectiveness of a Christian worldview curriculum:

Since this study only analyzed the worldviews of people who had graduated from Christian high schools, it should be noted that the scores of both groups of respondents were quite strongly correlated with the presence of a biblical Christian worldview. This

can serve as evidence that Christian schools are effective in helping their students develop a Christian view of the world. (p. 101)

In addition, Perkins (2007) reported in his study on adolescents' biblical worldview scores across levels of family dynamics that "students attending a private Christian school reported significantly higher worldview scores than those attending public school, other private schools, or homeschool" (p. 132). In her study on the spiritual stamina of Christian school graduates, Long (2014) found that "the young adults in the study attest to the fact that each of these institutions [home, church, and school] played significant roles in their [spiritual] development" (p. 165). Frances and Sion (2014) also conducted a study in the United Kingdom demonstrating that Christian schools developed "distinctly Christian values among their students" (p. 29).

Many of the more recent scholarly research studies that have been conducted focused on the role and preparedness of teachers in developing students' biblical worldview and in effecting spiritual transformation. One of the areas that was a particular focus of several studies was the expectation placed upon teachers to engage in transformational teaching (Crenshaw, 2013; Lewis, 2015). Both studies found that Christian school teachers, who are given the direct responsibility for shaping students' biblical worldview, struggle to implement faith learning integration and lack the formal training to execute it effectively. "Although all participants suggested they believe faith and learning must occur simultaneously and without disconnect, most participants struggled to articulate how this philosophy plays itself out in everyday teaching" (Crenshaw, 2013, p. 242). Lewis (2015) directly addressed the lack of formal training: "The vast majority of the teachers have not received formalized training to empower them for spiritually transformational teaching" (p. 183). Transformational teaching that shapes students' biblical worldview is difficult to achieve when teachers have not been prepared to engage in this

type of teaching and struggle to even articulate the role that faith and learning integration should play in their daily instruction and interactions.

The inability to articulate the essence and function of faith and learning integration was also recognized by Cooling and Green (2015) in their research involving the implementation of an instructional approach designed to shape a classroom's Christian ethos in a church school. In the course of their research concerning this implementation, they discovered that "competing imaginations about the nature of knowledge, the gospel and, to a lesser extent, the demands of the education policy context exerted a powerful influence over teachers' pedagogy" (p. 106). These competing imaginations were reflective of the fact that this was "the first time they [teachers] had been asked to reflect explicitly on the connection between Christian faith and learning" (p.106).

In a continued examination of teachers and the role they play in moral, religious, and worldview development, Moore (2014) studied the characteristics of teachers as they relate to intentionality in promoting students' spiritual growth. She surveyed teachers in the Southeast Region of the Association of Christian Schools International (ACSI) to determine the most common of these characteristics. Her research showed that "Christ-like attitude, classroom climate and spiritual disciplines were found to be the most common teacher characteristics that relate to intentionality in spiritual formation" (p. 266). These qualities are consistent with the need for modeling and connection that have shown to be essential to spiritual formation and biblical worldview development in students (de Kock, 2015; Damon, 1999; Parrett & Kang, 2009 Westerhoff, 2012).

Christian scholars are beginning to conduct more and more research studies, many of those as doctoral dissertations. These studies will begin to fill the knowledge gap that exists in

the study of Christian schools and biblical worldview formation in particular. These studies are important and will be effective, but it is also important to recognize here a major study that has been done by Cardus (2011), a think tank located in Canada and dedicated to a “renewed vision of North American social architecture” (p.4).

Cardus (2011) conducted a survey of schools to determine the “alignment between the motivations and outcomes of Christian education, to better understand the role of Christian schools in students’ lives, in families, and in larger society” (p. 5). This is the first major study of Christian school graduates and, as was emphasized earlier, was long overdue. While the results of this survey were significant and thought provoking, time will not be spent here reviewing all of them. Such discussion would be outside of the focus of this study. However, there are several points concerning the survey that are relevant and warrant highlighting.

While the Cardus (2011) survey affirmed that Christian schools, in large part, have their motivations and outcomes aligned, it also found that Christian schools were not as engaged in intellectual or academic development as their Catholic and private school counterparts, nor were they producing graduates who were actively engaging culture. The survey did positively affirm several characteristics of Christian school graduates that reflect healthy faith integration and biblical worldview development: community building and civic responsibility; strong family life; attitudes of gratitude, hope, and optimism; and strong life direction.

Looking at the results of the survey through a head, heart, hands paradigm, the results indicate that faith integration and biblical worldview development in Christian schools need to be evaluated with a focus on intellectual stewardship (head) and cultural engagement (head/heart/hands). The survey results indicate that Christian school educators are fairly successful in developing matters of the heart in students (e.g., compassion, mercy, and hope) but

fall short when it comes to matters of the head: academic achievement and engagement in the marketplace of ideas. Healthy faith integration needs to address all three areas of the paradigm as completely as it can. A biblical worldview that is unable or unwilling to engage intellectually with the culture is lacking in head (mental acuity), heart (courage), and hands (exercising faith).

Now that a major study of Christian school graduates has been conducted and offers data to examine, the hope is that these results will be applied to a healthy self-examination of individual schools' faith integration and worldview development so that the students under their care can be better served.

Summary

This literature review has attempted to give an overview of the place, condition, and importance of faith-learning integration and biblical worldview formation in Christian schools. It has also endeavored to illustrate the need for research and study in this area, especially in the assessment of the degree to which biblical worldview formation is taking place. The core of the mission of Christian schools is the development of their students' biblical worldview. It emanates from the foundation and philosophy that drives Christian education. It is what makes Christian schools and Christian education unique when compared to all other forms of education (Carper & Hunt, 2007).

This study proposed to conduct research within the Christian school community to add to the existing body of knowledge concerning the degree to which Christian schools were actually developing a biblical worldview in their students. Christian schools have long proclaimed that faith-learning integration and biblical worldview formation is one of its valued distinctives and one of the primary outcomes of a Christian school education. It was time to begin the research to

assess how well this was or was not happening. Does attending a Christian school influence biblical worldview development?

CHAPTER THREE: METHODS

Design

One of the primary objectives of the Christian school is the development of a biblical worldview in its students. Efforts to integrate faith and learning are ultimately intended to enable students to think Christianly – to critically examine and evaluate ideas and paradigms according to biblical principles. However, while this is a major objective of almost all Christian schools, there is a significant lack of research and literature that examines the level of success these schools have in achieving that goal (Boerema, 2011; Iselin & Meteyard, 2010). Hence, the purpose of this study was to determine if attending a Christian school influenced biblical worldview development. More specifically, this study was conducted to determine if Christian students with a substantial Christian school background developed a biblical worldview that was significantly different when compared to Christian students who had a minimal Christian school background and to those who had no Christian school experience. This study sought to determine this through a causal-comparative research design that utilized the results of a biblical worldview assessment given to Christian, graduate students at a prominent, private, Christian university to determine if there were statistically significant differences in their biblical worldview based on the following categories: substantial Christian school background; minimal Christian school background; and no Christian school experience.

This chapter presents the design of the study: the methodology, research design, research questions, and hypotheses. The participants involved in the study are identified along with the setting of the study and the instruments used to measure the dependent variable. The chapter concludes with an explanation of the procedures involved and the data analysis used.

The research design for this quantitative study was causal comparative (*ex post facto*)

employing one-way between group analysis of variance (ANOVA) and a post-hoc Tukey test. Causal comparative research is a “type of non-experimental investigation in which researchers seek to identify cause-and-effect relationships by forming groups of individuals in whom the independent variable is present or absent” (Gall et al., 2007, p. 306). It is a design that compares individuals who differ in some identified way (the independent variable) to find if those differences result in a particular outcome(s) (the dependent variable) that the researcher has chosen to examine (Wiersma & Jurs, 2008). It is called an ex post facto design because it studies an outcome that has already occurred, a condition that already exists. This research design was chosen because it examined differences in the Christian school experience of graduate students (the independent variable – the cause) to see if a cause-effect relationship existed between those differences and the biblical worldview (the dependent variable – the effect) of the participants.

Analysis of Variance (ANOVA) was used to conduct the statistical analysis because the study examined one independent variable (Christian, high school graduates) with three categories (significant Christian school experience [three or more consecutive years beyond grade 6], solely elementary/middle Christian school experience, and no Christian school experience) and one dependent variable (biblical worldview). Using analysis of variance (ANOVA), this researcher tested for significant differences between the means of the pre-determined groups. Analysis of variance was the most appropriate statistical tool for this causal-comparative study: one independent variable with more than two categories and one continuous dependent variable (Best & Kahn, 2005; Gall et al., 2007). Following the ANOVA, a post-hoc Tukey test was run for each of the three research questions to determine if biblical worldview was different between the specific groups targeted in each research question. Once the data was collected and organized, Statistical Package for the Social Sciences (SPSS) was used to run the statistical and

mathematical computations involved with ANOVA and the Tukey test to determine whether to accept or reject the null hypotheses.

The self-selection of participants in this design and study created a concern with internal validity. It created a concern because of the uncertainty surrounding the accessibility to and inclusion in the study of students representing a variety of regions and backgrounds. The assessed population might not have been as broad or diverse as it needed to be to generalize or apply the conclusions reached to other settings.

Research Questions

The research questions created to give focus to this study were directly derived from the problem statement that initiated the research: It has not been determined if there is a significant difference in the biblical worldview of Christian students who had a substantial Christian school background when compared to Christian students who had a minimal Christian school background and to those who had no Christian school experience. This problem statement then generated the primary question at the heart of this study. It was a question that is both broad and straightforward: does Christian school attendance influence biblical worldview formation? The more detailed research questions that follow sought to address the problem statement and this general question.

RQ1: Is the biblical worldview of Christian students who spent a substantial amount of time attending Christian school in middle/high school significantly different from the biblical worldview of Christian students who have no Christian school background?

RQ2: Is the biblical worldview of Christian students whose Christian school experience was minimal (less than three consecutive years beyond grade 6 or only at the elementary/middle

school level) significantly different from the biblical worldview of Christian students who have no Christian school background.

RQ3: Is the biblical worldview of Christian students who spent a substantial amount of time attending Christian school in middle/high school significantly different from the biblical worldview of Christian students whose Christian school experience was solely in elementary or middle school?

Null Hypotheses

H₀1: There will be no statistically significant difference in the biblical worldview of individuals who are professing Christians who spent a substantial number of years (three or more consecutive beyond grade 6) attending Christian school(s) compared to those professing Christians who have no Christian school background.

H₀2: There will be no statistically significant difference in the biblical worldview of individuals who are professing Christians whose Christian school experience was minimal (less than three consecutive years beyond grade 6 or only at the elementary/middle school level) compared to those professing Christians who have no Christian school background.

H₀3: There will be no statistically significant difference in the biblical worldview of high school graduates who are professing Christians whose Christian school experience was at the middle/high school level (three or more consecutive years beyond grade 6) compared to those professing Christians whose experience was solely in elementary or middle school.

Participants and Setting

The target population for this study was graduate students enrolled in on-campus, summer intensive courses in the School of Education at a private, Christian university (Liberty University). The university's Institutional Review Board (IRB) and the department chair for the

School of Education were contacted to secure permission to administer a short demographic survey and biblical worldview assessment to those particular students. The administration consented to make this population available for participation due in large part to the nature of the research and the significance of the study. The target population for this study was $n = 150$. The final number of participants secured was $n = 146$; however, two of those participants only partially completed the assessment and were eliminated from the total, leaving $n = 144$. This sample population was drawn from a larger, adult population that was highly educated (bachelor's degree or higher), primarily female, predominantly Christian, and predominantly white. The majority of this population was in that age bracket considered to be the family/parenting years (30-49 years old) and came from socio-economic backgrounds that fell in the middle class range.

This study took place during the summer term of on-campus, intensive classes at Liberty University (Summer 2015). Graduate students in the School of Education enrolled in those on-campus courses received an email from their professors containing a recruitment letter from this researcher. The letter invited them to participate in this study and contained links giving them access to both the online demographic survey and biblical worldview assessment. The response from these students was sufficient with 146 total responses, of which 144 were usable.

Instrumentation

Two instruments were used in this study: a demographic survey that gathered basic information on the students' pertinent background information and a biblical worldview assessment. The survey, created by this researcher, was anonymous and collected information on age, gender, type of K-12 schools attended (public, private, Christian, home), any years of Christian school attendance (for how long and in what grades), profession of Christian faith,

denominational background, frequency of church attendance, Bible reading, and prayer, and profession of Christian faith for primary caregivers in the setting they were raised in.

The *Three Dimensional Worldview Survey – Form C (3DWS-Form C)* developed by Katherine G. Schultz (2010) and validated by Kathy Lynn Morales (2013) was the instrument selected to assess biblical worldview. A number of inventories and assessments were examined and considered: PEERS (Nehemiah Institute, Inc., 2014); Biblical Life Outlook Scale (Bryant, 2008); Dimensions of Religiosity Scale (Joseph & Diduca, 2007); Systems Belief Inventory (Holland et al., 1998); Christian Orthodoxy Scale (Fullerton & Hunsberger, 1982); and the Religious Orientation Scale (Allport & Ross, 1967). The 3WDS-Form C was selected for its more comprehensive assessment of biblical worldview as compared to these other available tools. The 3WDS-Form C measures three dimensions of an individual's worldview: propositions, behaviors, and heart-orientation. It extends the measure of biblical worldview beyond the cognitive and propositional into the affective; it distinguishes between professed and actual worldviews (Schultz, 2010); and, based on this researcher's examination of the various available instruments, contains less of the cultural and political bias found in many biblical worldview instruments.

As reported by Schultz (2010), a pilot test performed on the 76-item scale to assess the internal consistency of the instrument achieved the following results for Cronbach's alpha measure of reliability: Cronbach's alpha for the composite was .919; the propositional subscale, .868; the behavioral subscale, .788; and the heart-orientation subscale, .806. All scores are sufficient to affirm the reliability of the instrument. In addition, the instrument was tested for both face validity and content validity by a group of non-expert reviewers and expert reviewers respectively. The evaluation by non-experts was done to "determine the clarity and

comprehensibility of the survey items by individuals who did not have any formal training in the study of biblical worldview” (Morales, 2013, p. 66). The expert group evaluated each item for clarity and relevance on a five-point Likert scale (one = very poor, five = very good). “The experts scored 93% of the items at 4.00 or above (out of 5.00) for clarity and 99% of items at 4.00 or above for relevance” (Schultz, 2010, p. 143).

Procedures

Before initiating this study, an application was submitted to the Liberty University Institutional Review Board (IRB) to secure approval for its implementation. With the receipt of that approval (See Appendix D for IRB Approval), permission was granted by the department chair of the school of education to carry out the study with the selected population at the designated time.

The collection method was facilitated through Google Forms. That tool also aided in organizing and tabulating the responses. At all points, both during and after the study, the student participants remained anonymous, and the data gathered has been secured on this researcher’s personal computer and an external hard drive to ensure participant privacy. At the conclusion of the study, the results will be made available to the participating institution.

The first step in the data collection process was to contact the professors who were teaching summer intensive courses in the school of education and ask them to email the recruitment letter for the study to their students. That recruitment letter explained the purpose and importance of the research, the timeframe for responding, a link to the survey and assessment, and an assurance of anonymity for the student respondents. The survey was conducted during two, consecutive, two-week, intensive periods. It was accessible to students for that entire four-week window. At the conclusion of those four weeks, the results of the

survey and assessment were exported from Google Forms into an Excel spreadsheet and were statistically analyzed using SPSS.

Data Analysis

As was stated earlier in this chapter, the research design for this quantitative study was causal comparative (ex post facto) employing one-way between group analysis of variance (ANOVA). According to Gall, Gall, and Borg (2007) analysis of variance was the most appropriate statistical tool for this causal-comparative study. ANOVA is most appropriately used when there is one independent variable with more than two categories or levels and one continuous dependent variable (Best & Kahn, 2005). The formal definition of an ANOVA is expressed clearly by Green and Salkind (2013): “each individual or case must have scores on two variables: a factor and a dependent variable. The factor divides into two or more groups or levels whereas the dependent variable differentiates individuals on a quantitative dimension” (p. 163). In other words, ANOVA is used when there is an independent variable that has multiple categories or levels to it. This study looked at graduate students in three categories. Also, with ANOVA the dependent variable being examined (biblical worldview) to potentially differentiate the groups must be done in a measurable (quantitative) way (the 3DWS-Form C). ANOVA was chosen, therefore, because the study examined one independent variable (Christian, high school graduates) with three categories (significant Christian school experience [three or more consecutive years beyond grade 6], solely elementary/middle Christian school experience, and no Christian school experience) and one dependent variable (biblical worldview).

Once the data were gathered and collated at the conclusion of the student surveys and assessments, an analysis of variance was conducted (ANOVA) for each of the null hypotheses. Following the ANOVA, a post-hoc Tukey test was run to determine if there were any statistically

significant differences and if those null hypotheses should be accepted or rejected. Any test results that indicated a significant effect for any of the three null hypotheses underwent a post-hoc analysis to determine the nature and extent of the effect. The Tukey test was selected for the post hoc procedure because the results of the ANOVA indicated that the variances were not radically different from each other and the test of homogeneity of variances ($p = .71$) was not significant (Green & Salkind, 2013). The Tukey test is also known as the Tukey HSD (honestly significant difference) test and was also chosen because it is relatively conservative in its approach and analysis,

In using ANOVA, there is an assumption of certain conditions. First, it is assumed that there is an equality of population variances: that the variances of the dependent variable are the same for the populations of the three categories. Next, there is an assumption that the dependent variable has a normal distribution for the populations of the three categories. Finally, it is assumed that the participants are a representative random sample of the three population groups and that the biblical worldview scores are independent of each other (Best & Kahn, 2005; Green & Salkind, 2013). Also, because ANOVA is a linear regression model, homoscedasticity was assumed for this analysis. After the data was analyzed with ANOVA, the scatterplot of the residuals against the predicted values of the dependent variable was examined to determine homoscedasticity (Gall et al., 2007).

For this study, the alpha level chosen to determine statistical significance was $\alpha = .05$. This level was chosen because a 95% confidence level that the results were not due to chance was sufficient for this type of study in examining biblical worldview. Using a more stringent alpha level would have increased the chances for a Type II error (Best & Kahn, 2005). It was deemed that the probability of making a Type I error in a study of this sort was less likely than

making a Type II error with a smaller alpha level. The need for the higher confidence level did not outweigh the need to avoid the Type II error and not rejecting the null hypothesis when it is false.

In summary, this study surveyed and assessed a sample population of graduate students at a private, Christian, university to determine the extent of their biblical worldview. The main purpose of this study was to answer the primary research question: have Christian students with a substantial Christian school background developed a biblical worldview that is significantly different when compared to Christian students who have a minimal Christian school background and to those who have no Christian school experience. The results of this study contributed data that informs the ongoing discussion concerning the impact of Christian schools on the development of their students' biblical worldview.

CHAPTER FOUR: FINDINGS

Research Questions

The purpose of this study was to evaluate the impact Christian schools, in general, have had upon their students' biblical worldview development. Goals of this study were to determine if Christian students with a substantial Christian school background had developed a biblical worldview that was significantly different when compared to Christian students who had a minimal Christian school background or to Christian students who had no Christian school experience. This study compared the results of a biblical worldview assessment given to Christian, graduate students at a prominent, private, Christian university to determine if there were statistically significant differences in their biblical worldview based on the following categories: substantial Christian school background; minimal Christian school background; and no Christian school experience. This chapter will review the research questions and hypotheses that were used to explore the data collected. Demographics of the population used for analyses, as well as a summary of the study variables used to answer the statistical questions will then be discussed in detail. Further, results of the data analyses will be presented. A summary will conclude the chapter.

The research questions that gave focus to this study emerged directly from the problem statement that is at the foundation of this research project: It has not been determined if there is a significant difference in the biblical worldview of Christian students who had a substantial Christian school background when compared to Christian students who had a minimal Christian school background and to those who had no Christian school experience. This problem statement had a parallel problem question that followed quite naturally and became the comprehensive focus of this study. It was a question that was direct yet wide in its scope: does

Christian school attendance influence biblical worldview formation? The more detailed research questions that follow sought to address the problem statement and this broader question.

RQ1: Is the biblical worldview of Christian students who spent a substantial amount of time attending Christian school in middle/high school significantly different from the biblical worldview of Christian students who have no Christian school background?

RQ2: Is the biblical worldview of Christian students whose Christian school experience was minimal (less than three consecutive years beyond grade 6 or only at the elementary/middle school level) significantly different from the biblical worldview of Christian students who have no Christian school background.

RQ3: Is the biblical worldview of Christian students who spent a substantial amount of time attending Christian school in middle/high school significantly different from the biblical worldview of Christian students whose Christian school experience was solely in elementary or middle school?

Hypotheses

H₁: There will be a statistically significant difference in the biblical worldview of individuals who are professing Christians who spent a substantial number of years (three or more consecutive beyond grade 6) attending Christian school(s) compared to those professing Christians who have no Christian school background.

H₂: There will be a statistically significant difference in the biblical worldview of individuals who are professing Christians whose Christian school experience was minimal (less than three consecutive years beyond grade 6 or only at the elementary/middle school level) compared to those professing Christians who have no Christian school background.

H₃: There will be a statistically significant difference in the biblical worldview of high school graduates who are professing Christians whose Christian school experience was at the middle/high school level (three or more consecutive years beyond grade 6) compared to those professing Christians whose experience was solely in elementary or middle school.

H₀₁: There will be no statistically significant difference in the biblical worldview of individuals who are professing Christians who spent a substantial number of years (three or more consecutive beyond grade 6) attending Christian school(s) compared to those professing Christians who have no Christian school background.

H₀₂: There will be no statistically significant difference in the biblical worldview of individuals who are professing Christians whose Christian school experience was minimal (less than three consecutive years beyond grade 6 or only at the elementary/middle school level) compared to those professing Christians who have no Christian school background.

H₀₃: There will be no statistically significant difference in the biblical worldview of high school graduates who are professing Christians whose Christian school experience was at the middle/high school level (three or more consecutive years beyond grade 6) compared to those professing Christians whose experience was solely in elementary or middle school.

Descriptive Statistics

The sample in this study consisted of 144 graduate students enrolled in on-campus, summer intensive courses in the School of Education at a private, Christian university (Liberty University). Table 1 shows a summary of the demographics for the 144 study participants, where 78.5% ($n = 113$) were *females* and 21.5% ($n = 31$) were *males*. Ages ranged from 20 to over 60 years old, with 23.6% ($n = 34$) aged 20 – 29 years, 30.6% ($n = 44$) aged 30 – 39 years, 34.7% ($n = 50$) aged 40 -49 years, 9.7% ($n = 14$) aged 50 – 59 years, and 1.4% ($n = 2$) over 60

years old. When asked what type of school they graduated from, most graduated from a *Public School* (86.0%, $n = 123$), followed by *Private Christian* (11.2%, $n = 16$), *Homeschooled* (2.1%, $n = 3$), or *Private Non-Sectarian* (0.7%, $n = 1$). When asked if they ever attended a K-12 Christian School, most stated they did not (72.7%, $n = 104$), with 27.3% ($n = 39$) stating they did attend a K-12 Christian School. When asked specifically about their experience attending Christian School, 10.4% ($n = 15$) stated *they attended a K-12 Christian school for 3 or more consecutive years beyond 6th grade*, 4.2% ($n = 6$) stated *they attended high school in a Christian school for two or more consecutive years*, 12.5% ($n = 18$) stated *they attended a K-12 Christian school for a time, but do not fit either of the above categories*, and the majority stated this question was *not applicable* (72.9%, $n = 105$).

Participants were also asked how long they have been a professing Christian (accepted Jesus Christ as personal savior), where most stated that it has been *4 or more years* (94.4%, $n = 136$), followed by *less than one year* and *1 – 3 years* (both at 2.1%, $n = 3$), and 1.4% ($n = 2$) stating they are *not a Christian*. For participant church denomination, most considered themselves to be *Non-Denominational* (27.0%, $n = 38$), followed by *Southern Baptist* (22.7%, $n = 32$), then *Pentecostal/Charismatic* (13.5%, $n = 19$), *Roman Catholic* (7.1%, $n = 4$), *Independent Baptist* (6.4%, $n = 9$), *American Baptist* and *Presbyterian (PCA)* (both 4.3%, $n = 6$), *Methodist/Wesleyan* and *Do not attend church* (both at 2.8%, $n = 4$), *Free Will Baptist* and *Episcopal* (both at 2.1%, $n = 3$), *AME* and *Disciples of Christ/Church of Christ* (both at 1.4%, $n = 2$), and all at 0.7% ($n = 1$) were *Independent Bible Church*, *Lutheran*, and *Orthodox*.

When asked about their frequency of church attendance, most attend church *weekly* (55.9%, $n = 80$), followed by *occasionally* (18.9%, $n = 27$), *several times a week* (16.1%, $n = 23$), *several times a month* (6.3%, $n = 9$), *monthly* (1.4%, $n = 2$), or *never* (1.4%, $n = 2$). When

asked about frequency of bible reading, most read their bible *2–3 times a week* (29.4%, $n = 42$), followed by *daily* (25.9%, $n = 37$), *weekly* (18.9%, $n = 27$), *rarely or not at all* (14.7%, $n = 21$), or *monthly* (11.2%, $n = 14.7$). When asked about their frequency of prayer, most pray *daily* (79.9%, $n = 115$), followed by *2–3 times a week* (12.5%, $n = 18$), *weekly* (3.5%, $n = 5$), *monthly* (2.8%, $n = 4$), or *rarely or not at all* (1.4%, $n = 2$). And finally, when asked if the adults who raised them in their home (parents/guardians/grandparents/foster parents) were professing Christians, the majority stated *both* adults were (52.8%, $n = 75$), followed by *one* adult was (26.1%, $n = 37$), *all* adults (14.1%, $n = 20$) or *no* adults (7.1%, $n = 10$).

Table 1

Summary of Demographics

	<i>n</i>	<i>Percent</i>
Gender		
Male	31	21.5
Female	113	78.47
Age Group		
20 – 29 Years	34	23.6
30 – 39 Years	44	30.6
40 – 49 Years	50	34.7
50 – 59 Years	14	9.7
Over 60 Years	2	1.4
Type of High School		
Public	123	86.0
Private Christian	16	11.2
Homeschool	3	2.1
Private Non-Sectarian	1	0.7
Ever Attend a K-12 Christian School		
Yes	39	27.3
No	104	72.7
If Attended a K-12 Christian School, How Long		
3 or More Consecutive Years After 6 th Grade	15	10.4

	<i>n</i>	<i>Percent</i>
In High School for 2 or More Consecutive Years	6	4.2
For Some Time, Outside of Other Categories	18	12.5
Not Applicable	105	72.9
How Long Been a Christian		
Not a Christian	2	1.4
Less Than One Year	3	2.1
1 – 3 Years	3	2.1
4 or More Years	136	94.4
Church Denomination		
Southern Baptist	32	22.7
American Baptist	6	4.3
Free Will Baptist	3	2.1
Independent Baptist	9	6.4
Independent Bible Church	1	0.7
Episcopal	3	2.1
Lutheran	1	0.7
Methodist/Wesleyan	4	2.8
Non-denominational	38	27.0
Pentecostal/Charismatic	19	13.5
Presbyterian (PCA)	6	4.3
Roman Catholic	10	7.1
Do not attend church	4	2.8
AME	2	1.4
Disciples of Christ/Church of Christ	2	1.4
Orthodox	1	0.7
How Often Attend Church		
Several Times a Week	23	16.1
Weekly	80	55.9
Several Times a Month	9	6.3
Monthly	2	1.4
Occasionally	27	18.9
Never	2	1.4
How Frequently Read the Bible		
Daily	37	25.9
2-3 Times a Week	42	29.4
Weekly	27	18.9
Monthly	16	11.2

	<i>n</i>	<i>Percent</i>
Rarely or Not at All	21	14.7
How Frequently Do You Pray		
Daily	115	79.9
2-3 Times a Week	18	12.5
Weekly	5	3.5
Monthly	4	2.8
Rarely or Not at All	2	1.4
Are Adults Who Raised You Professing Christians?		
Both	75	52.8
One	37	26.1
None	10	7.0
All	20	14.1

Note. ($N = 144$).

Results

This section will provide a summary of the sample and study variables used for data analysis, as well as results of the statistical tests used to explore each of the three research questions.

The first dependent variable in this study was biblical worldview as measured by a biblical worldview assessment instrument, the *Three Dimensional Worldview Survey – Form C (3DWS-Form C)*. The biblical worldview score was created by taking an average of the survey items designed to measure biblical worldview. Responses for each of the questions were on a 5-point Likert Scale, ranging from Strongly Disagree (1) to Strongly Agree (5). For all of the participants, average *Biblical Worldview* score was 3.90 ($SD = 0.48$) (Table 2).

In addition to the overall biblical worldview score, three sub-dimensions of the overall score were also used as dependent variables: propositional dimension, behavior dimension, and heart-orientation dimension. The propositional dimension score was “designed to measure respondents’ comprehensive understandings of worldview. These questions focused on matters

of history, hermeneutics, morality, and theology” (Morales, 2013, p. 64). To create the propositional dimension score, participant responses to 43 of the 76 items were used (1, 2, 3, 4, 5, 6, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 23, 24, 25, 27, 28, 30, 31, 32, 33, 34, 35, 37, 38, 39, 40, 41, 43, 44, 45, 46, 47, 48, and 75) (Schultz, 2010), using the same 5-point Likert Scale as with the overall biblical worldview score. For all participants, average *Propositional Dimension* score was 3.91 ($SD = 0.58$) (Table 2).

The behavior dimension score “was hypothesized to measure respondents’ behaviors in the church” (Morales, 2013, p. 64). To create the behavior dimension score, participant responses to 13 of the 76 items were used (29, 49, 50, 51, 52, 61, 62, 64, 67, 70, 71, 73, and 76) (Schultz, 2013), using the same 5-point Likert Scale as with the overall biblical worldview score. For all participants, average Behavior Dimension score was 4.00 ($SD = 0.47$) (Table 2).

The third and final dimension score, heart-orientation, was “inspired by spiritual maturity literature and was created to examine respondents’ attitudes, feelings, and preferences” (Morales, 2013, p. 64). To create the heart-orientation dimension score, participant responses to 20 of the 76 items were used (7, 22, 26, 36, 42, 53, 54, 55, 56, 57, 58, 59, 60, 63, 65, 66, 68, 69, 72, and 74) (Schultz, 2010), using the same Likert Scale as with the overall biblical worldview score. For all participants, average *Heart-Orientation Dimension* score was 3.80 ($SD = 0.47$) (Table 2).

Table 2

Summary of Independent Variables

	<i>Mean</i>	<i>SD</i>
Biblical Worldview	3.90	0.48
Propositional Dimension	3.91	0.58
Behavior Dimension	4.00	0.48
Heart-Orientation Dimension	3.80	0.47

The independent variable used in the study was a categorical variable consisting of three groups: substantial Christian school background (three or more consecutive years beyond grade 6); minimal Christian school background (less than three consecutive years beyond grade 6 or only at the elementary/middle school level); and no Christian school experience. This variable was created by regrouping participant responses to “If Attended a K-12 Christian School, How Long.” *Substantial* Christian school background were those who responded with *3 or More Consecutive Years After 6th Grade and In High School for 2 or More Consecutive Years* (14.6%, $n = 21$). *Minimal* Christian school background were those who responded with *For Some Time, Outside of Other Categories* (12.5%, $n = 18$). And *no* Christian school experience were those where this question was not applicable (72.9%, $n = 105$).

Null Hypothesis One

Research question one asked, “Is the biblical worldview of Christian students who spent a substantial amount of time attending Christian school in middle/high school significantly different from the biblical worldview of Christian students who have no Christian school background?” To assess this question, a One-Way Analysis of Variance (ANOVA) was used to observe average biblical worldview score (overall score and the three sub scores) between all three Christian experience groups (substantial, minimal, none). Following the ANOVA, a post-hoc Tukey test was run to determine if biblical worldview was different between those who spent a substantial amount of time attending Christian school in middle/high school and Christian students who have no Christian school background. Results of the ANOVA showed no significant difference in biblical worldview between the 3 groups ($F = 2.01, p = 0.138$) for the overall biblical worldview score (Table 3). Results of the post-hoc Tukey test showed that the average biblical worldview for those who spent a substantial amount of time attending Christian

school in middle/high school ($Mean = 4.09, SD = 0.47$) was not significantly different from the average worldview of those who have no Christian school background ($Mean = 3.87, SD = 0.48$) ($p = 0.150$) (Table 4). The alpha value for the total worldview score was .112.

Similar results can be found for the three sub-dimension scores. For the propositional dimension, results of the ANOVA demonstrated no significant difference in biblical worldview between the 3 groups ($F = 2.61, p = 0.077$) (Table 3). Specifically, those who spent a substantial amount of time attending Christian school in middle/high school ($Mean = 4.17, SD = 0.48$) were not significantly different from the average propositional dimension view of those who have no Christian school background ($Mean = 3.88, SD = 0.51$) ($p = 0.079$) (Table 4). The alpha value for the propositional dimension was .071.

For the behavior dimension, results of the ANOVA demonstrated no significant difference in biblical worldview between the 3 groups ($F = 0.66, p = 0.518$) (Table 3). Specifically, those who spent a substantial amount of time attending Christian school in middle/high school ($Mean = 4.10, SD = 0.52$) were not significantly different from the average behavior dimension view of those who have no Christian school background ($Mean = 4.00, SD = 0.47$) ($p = 0.643$) (Table 4). The alpha value for the behavior dimension was .390.

For the heart-orientation dimension, results of the ANOVA demonstrated no significant difference in biblical worldview between the 3 groups ($F = 0.47, p = 0.625$) (Table 3). Specifically, those who spent a substantial amount of time attending Christian school in middle/high school ($Mean = 3.89, SD = 0.57$) were not significantly different from the average heart-orientation dimension view of those who have no Christian school background ($Mean = 3.79, SD = 0.47$) ($p = 0.667$) (Table 4). The alpha value for the heart-orientation dimension was .552.

This implies that the null hypothesis fails to be rejected, concluding that there are no statistically significant differences in the biblical worldview of individuals who are professing Christians who spent a substantial number of years (three or more consecutive beyond grade 6) attending Christian school(s) compared to those professing Christians who have no Christian school background.

Table 3

ANOVA Summary for Substantial Versus None

Source	<i>Sum of Squares</i>	<i>df</i>	<i>Mean Square</i>	<i>F</i>	<i>p</i>
Dependent Variable: Biblical Worldview					
Between	0.92	2	0.46	2.01	0.138
Within	32.20	141	0.23		
Dependent Variable: Propositional Dimension					
Between	1.70	2	0.85	2.61	0.077
Within	45.85	141	0.33		
Dependent Variable: Behavior Dimension					
Between	0.31	2	0.15	0.66	0.518
Within	32.83	141	0.23		
Dependent Variable: Heart Orientation Dimension					
Between	0.21	2	0.11	0.47	0.625
Within	31.54	141	0.22		

Table 4

Tukey Test for Substantial Versus None

<i>Dependent Variable</i>	<i>Mean Difference</i>	<i>Standard Error</i>	<i>Significance</i>
Biblical Worldview	.214	.114	.150
Propositional Dimension	.297	.136	.079
Behavior Dimension	.104	.115	.643
Heart-Orientation Dimension	.097	.113	.667

Null Hypothesis Two

Research question two asked, “Is the biblical worldview of Christian students whose Christian school experience was minimal (less than three consecutive years beyond grade 6 or only at the elementary/middle school level) significantly different from the biblical worldview of Christian students who have no Christian school background?” To assess this question, the same One-Way Analysis of Variance (ANOVA) from research question one was used to observe average biblical worldview score (overall score and the three sub scores) between all three Christian experience groups (substantial, minimal, none). Following the ANOVA, this time the post-hoc Tukey test was run to determine if biblical worldview was different between those whose Christian school experience was minimal and Christian students who have no Christian school background. Results of the ANOVA showed no significant difference in biblical worldview between the 3 groups ($F = 2.01, p = 0.138$). Results of the post-hoc Tukey test showed that the average biblical worldview for those whose Christian school experience was minimal ($Mean = 3.82, SD = 0.45$) was not significantly different from the average worldview of those who have no Christian school background ($Mean = 3.87, SD = 0.48$) ($p = 0.912$) (Table 5).

For the propositional dimension, results of the ANOVA demonstrated no significant difference in biblical worldview between the 3 groups ($F = 2.61, p = 0.077$) (Table 3). Specifically, those whose Christian school experience was minimal ($Mean = 3.83, SD = 0.51$) were not significantly different from the average propositional dimension view of those who have no Christian school background ($Mean = 3.88, SD = 0.51$) ($p = 0.937$) (Table 5).

For the behavior dimension, results of the ANOVA demonstrated no significant difference in biblical worldview between the 3 groups ($F = 0.66, p = 0.518$) (Table 3). Specifically, those whose Christian school experience was minimal ($Mean = 3.92, SD = 0.49$)

were not significantly different from the average behavior dimension view of those who have no Christian school background ($Mean = 4.00, SD = 0.47$) ($p = 0.836$).

For the heart-orientation dimension, results of the ANOVA demonstrated no significant difference in biblical worldview between the 3 groups ($F = 0.47, p = 0.625$) (Table 3).

Specifically, those whose Christian school experience was minimal ($Mean = 3.75, SD = 0.47$) were not significantly different from the average heart-orientation dimension view of those who have no Christian school background ($Mean = 3.79, SD = 0.47$) ($p = 0.947$) (Table 5).

This implies that the null hypothesis fails to be rejected, concluding that there was no significant difference in the biblical worldview of individuals who are professing Christians whose Christian school experience was minimal (less than three consecutive years beyond grade 6 or only at the elementary/middle school level) compared to those professing Christians who have no Christian school background.

Table 5

Tukey Test for Minimal Versus None

<i>Dependent Variable</i>	<i>Mean Difference</i>	<i>Standard Error</i>	<i>Significance</i>
Biblical Worldview	-.050	.122	.912
Propositional Dimension	-.050	.145	.937
Behavior Dimension	-.070	.123	.836
Heart-Orientation Dimension	-.038	.121	.947

Null Hypothesis Three

Research question three asked, “Is the biblical worldview of Christian students who spent a substantial amount of time attending Christian school in middle/high school significantly different from the biblical worldview of Christian students whose Christian school experience was solely in elementary or middle school?” To assess this question, a One-Way Analysis of Variance (ANOVA) was used to observe average biblical worldview score (overall score and the

three sub scores) between all three Christian experience groups (substantial, minimal, none). Following the ANOVA, a post-hoc Tukey test was run to determine if biblical worldview was different between those who spent a substantial amount of time attending Christian school in middle/high school and those whose Christian school experience was solely in elementary or middle school. Results of the ANOVA showed no significant difference in overall biblical worldview between the 3 groups ($F = 2.01, p = 0.138$). Results of the post-hoc Tukey test showed that the average biblical worldview for those who spent a substantial amount of time attending Christian school in middle/high school ($Mean = 4.09, SD = 0.47$) was not significantly different from the average worldview of those whose Christian school experience was solely in elementary or middle school ($Mean = 3.82, SD = 0.45$) ($p = 0.912$) (Table 6).

For the propositional dimension, results of the ANOVA demonstrated no significant difference in biblical worldview between the 3 groups ($F = 2.61, p = 0.077$) (Table 3). Specifically, those who spent a substantial amount of time attending Christian school in middle/high school ($Mean = 4.17, SD = 0.48$) were not significantly different from the average propositional dimension view of those whose Christian school experience was solely in elementary or middle school ($Mean = 3.83, SD = 0.51$) ($p = 0.144$) (Table 6).

For the behavior dimension, results of the ANOVA demonstrated no significant difference in biblical worldview between the 3 groups ($F = 0.66, p = 0.518$) (Table 3). Specifically, those who spent a substantial amount of time attending Christian school in middle/high school ($Mean = 4.10, SD = 0.52$) were not significantly different from the average behavior dimension view of those whose Christian school experience was solely in elementary or middle school ($Mean = 3.92, SD = 0.49$) ($p = 0.503$) (Table 6).

For the heart-orientation dimension, results of the ANOVA demonstrated no significant difference in biblical worldview between the 3 groups ($F = 0.47, p = 0.625$) (Table 3).

Specifically, those who spent a substantial amount of time attending Christian school in middle/high school ($Mean = 3.89, SD = 0.57$) were not significantly different from the average heart-orientation dimension view of those whose Christian school experience was solely in elementary or middle school ($Mean = 3.75, SD = 0.47$) ($p = 0.648$) (Table 6).

This implies that the null hypothesis fails to be rejected, concluding that there was no statistically significant difference in the biblical worldview of high school graduates who are professing Christians whose Christian school experience was at the middle/high school level (three or more consecutive years beyond grade 6) compared to those professing Christians whose experience was solely in elementary or middle school.

Table 6

Tukey Test for Substantial Versus Minimal

<i>Dependent Variable</i>	<i>Mean Difference</i>	<i>Standard Error</i>	<i>Significance</i>
Biblical Worldview	.264	.153	.202
Propositional Dimension	.347	.183	.144
Behavior Dimension	.174	.155	.503
Heart-Orientation Dimension	.135	.152	.648

Additional Analysis

Following the data analysis directly related to the research questions and the null hypotheses, additional data analysis was done for the individual questions in the biblical worldview survey to determine if any of those questions showed a statistically significant difference among or between the categories of the independent variable. A One-Way Analysis of Variance (ANOVA) was used to observe the means of each individual question between all three Christian experience groups (substantial, minimal, none). Additional analysis found that

six questions demonstrated a significant difference: questions 10, 16, 30, 35, 39, and 44. The mean difference was considered to be significant at the 0.05 level. Results are found in Figure 1.

		Sum of Squares	df	Mean Square	F	Sig.
10. A person can earn eternal salvation by being good, for example, by doing good things for other people.	Between Groups	8.715	2	4.358	3.368	.037
	Within Groups	182.444	141	1.294		
	Total	191.160	143			
16. Every life has value, whether unborn, disabled, sickly, or in any other way limited.	Between Groups	2.556	2	1.278	3.309	.039
	Within Groups	54.444	141	.386		
	Total	57.000	143			
30. Most people are basically good.	Between Groups	19.140	2	9.570	5.942	.003
	Within Groups	225.490	140	1.611		
	Total	244.629	142			
35. God is important primarily because faith in Him makes us more civilized and psychologically healthy.	Between Groups	15.244	2	7.622	4.150	.018
	Within Groups	258.978	141	1.837		
	Total	274.222	143			
39. I believe that when I die, I will go to Heaven because I have been a good person.	Between Groups	11.209	2	5.604	3.646	.029
	Within Groups	216.729	141	1.537		
	Total	227.938	143			
44. I believe that when I die, I will go to Heaven because I have been going to church pretty much all my life.	Between Groups	6.825	2	3.412	5.164	.007
	Within Groups	93.168	141	.661		
	Total	99.993	143			

Figure 1. ANOVA Summary for Statistically Significant Questions

Following the ANOVA, a post-hoc Tukey Test was run for the individual questions to determine if there were differences between the three pairs of groups that were examined in the original hypotheses. The same six questions demonstrated statistical significance with two questions (30 and 44) showing a statistically significant difference in two pairings (substantial

vs. none and substantial vs. minimal), while questions 10, 16, 35, and 39 demonstrated a statistically significant difference in one set of pairings. The six questions are presented below.

- 10 A person can earn eternal salvation by being good, for example by doing good things for people
- 16 Every life has value, whether unborn, disabled, sickly, or in any other way limited
- 30 Most people are basically good.
- 35 God is important primarily because faith in Him makes us more civilized and psychologically healthy.
- 39 I believe that when I die I will go to Heaven because I have been a good person.
- 44 I believe that when I die I will go to Heaven because I have been going to church pretty much my whole life.

The mean and standard deviation derived for each of the six statistically significant questions are found below in Table 7. The results of the Tukey tests for these questions that show the differences between groups are illustrated in Figure 2. The pairings that demonstrated a statistically significant difference were between the substantial group and/or the minimal and none groups. These differences are discussed in Chapter 5.

Table 7

Summary of Statistically Significant Questions

	<i>Mean</i>	<i>SD</i>
Question 10	4.20	1.16
Question 16	4.75	0.63
Question 30	3.17	1.31
Question 35	2.89	1.39
Question 39	3.85	1.26
Question 44	4.38	0.84

Dependent Variable	(I) nIndependent	(J) nIndependent	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	95% Confidence Interval
						Lower Bound	Upper Bound
10. A person can earn eternal salvation by being good, for example, by doing good things for other people.	Minimal	None	-.254	.290	.657	-.94	.43
		Substantial	-.873*	.365	.048	-1.74	-.01
	None	Minimal	.254	.290	.657	-.43	.94
		Substantial	-.619	.272	.062	-1.26	.03
16. Every life has value, whether unborn, disabled, sickly, or in any other way limited.	Minimal	None	-.317	.159	.115	-.69	.06
		Substantial	-.508*	.200	.032	-.98	-.04
	None	Minimal	.317	.159	.115	-.06	.69
		Substantial	-.190	.149	.407	-.54	.16
30. Most people are basically good.	Minimal	None	-.159	.324	.876	-.93	.61
		Substantial	-1.159*	.408	.014	-2.12	-.19
	None	Minimal	.159	.324	.876	-.61	.93
		Substantial	-1.000*	.304	.004	-1.72	-.28
35. God is important primarily because faith in Him makes us more civilized and psychologically healthy.	Minimal	None	.156	.346	.895	-.66	.97
		Substantial	-.778	.435	.178	-1.81	.25
	None	Minimal	-.156	.346	.895	-.97	.66
		Substantial	-.933*	.324	.013	-1.70	-.17
39. I believe that when I die, I will go to Heaven because I have been a good person.	Minimal	None	.110	.316	.936	-.64	.86
		Substantial	-.690	.398	.196	-1.63	.25
	None	Minimal	-.110	.316	.936	-.86	.64
		Substantial	-.800*	.296	.021	-1.50	-.10
44. I believe that when I die, I will go to Heaven because I have been going to church pretty much all my life.	Minimal	None	-.083	.207	.916	-.57	.41
		Substantial	-.683*	.261	.027	-1.30	-.06
	None	Minimal	.083	.207	.916	-.41	.57
		Substantial	-.600*	.194	.007	-1.06	-.14
	Substantial	Minimal	.683*	.261	.027	.06	1.30
		None	.600*	.194	.007	.14	1.06

Figure 2. Tukey Test for Statistically Significant Questions

Summary

The main purpose of this study was to evaluate the impact Christian schools, in general, are having upon their students' biblical worldview development. Goals of this study were to determine if Christian students with a substantial Christian school background had developed a biblical worldview that was significantly different when compared to Christian students who had a minimal Christian school background or to Christian students who had no Christian school experience. Results of the analyses showed that there were no significant differences in biblical worldviews between any of the groups.

CHAPTER FIVE: DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

Discussion

One of the primary distinctives of Christian schools is to instruct, guide, and disciple students in the development of a biblical worldview. From Frank Gaebel's (1995) articulations of faith-learning integration in the early years of the modern Christian school movement to Octavio Esqueda's (2014), James Sire's (2009) and James Smith's (2009) current thoughts on biblical worldview development, Christian schools have purposefully endeavored to foster the merger of faith and intellect in the development of their students' worldview. Although one of the primary distinctives of Christian schools is instructing and discipling students in the development of a biblical worldview, it had not been determined if Christian students with a substantial Christian school background had developed a biblical worldview that was significantly different when compared to Christian students who had a minimal Christian school background or to Christian students who had no Christian school experience (Barrows, 2014; Brickhill, 2010; Rutledge, 2013; Taylor, 2009; Van Meter, 2009). The existing lack of empirical research prevents knowing the extent to which biblical worldview development is or is not happening in Christian school students (Badley, 2009, Iselin & Meteyard, 2010). Little tangible evidence exists to assess if what Christian school educators are doing in the name of biblical worldview development, as well intentioned as it may be, is at all effective (Boerema, 2011).

The purpose of this causal comparative (*ex post facto*) study was to gather empirical data to evaluate the impact Christian schools are having upon their students' biblical worldview development. This research study sought to determine if Christian students with a substantial Christian school background had developed a biblical worldview that was significantly different

when compared to Christian students who had a minimal Christian school background or to Christian students who had no Christian school experience. This chapter reviews the findings of that study, discusses the results, presents conclusions, reviews its implications and limitations, and then offers recommendations for future research.

The research design for this quantitative study was causal comparative (*ex post facto*) employing one-way between group analysis of variance (ANOVA) and a post-hoc Tukey test. The study examined one independent variable (Christian, high school graduates) with three categories (significant Christian school experience [three or more consecutive years beyond grade 6], minimal Christian school experience [solely elementary/middle Christian school experience], and no Christian school experience) and one dependent variable (biblical worldview). A demographic survey and a biblical worldview assessment were given to 144 Christian, graduate students at a prominent, private, Christian university to determine if there were statistically significant differences in their biblical worldview. Using analysis of variance (ANOVA) this researcher tested for significant differences between the means of the pre-determined groups. Following the ANOVA, a post-hoc Tukey test was run for each of the three research questions to determine if biblical worldview was different between the specific groups targeted in each of the three research questions. There were three null hypotheses that directed the focus of the study.

H₀1: There will be no statistically significant difference in the biblical worldview of individuals who are professing Christians who spent a substantial number of years (three or more consecutive beyond grade 6) attending Christian school(s) compared to those professing Christians who had no Christian school background.

H₀2: There will be no statistically significant difference in the biblical worldview of individuals who are professing Christians whose Christian school experience was minimal (less than three consecutive years beyond grade 6 or only at the elementary/middle school level) compared to those professing Christians who had no Christian school background.

H₀3: There will be no statistically significant difference in the biblical worldview of high school graduates who are professing Christians whose Christian school experience was at the middle/high school level (three or more consecutive years beyond grade 6) compared to those professing Christians whose experience was solely in elementary or middle school.

The data analysis conducted compared the participants' biblical worldview scores to determine statistical significance within each of the null hypotheses. The biblical worldview scores were obtained using the *Three Dimensional Worldview Survey – Form C (3DWS-Form C)* developed by Katherine G. Schultz (2010) and validated by Kathy Lynn Morales (2013). The demographic survey provided both the pertinent information needed to conduct the analysis and additional information that was collected for further post-study research. Following the initial biblical worldview data analysis, further analysis was done to explore the sub categories of the *3DWS-Form C*, analyzing the responses according to the three specific dimensions of the survey (the propositional dimension, behavior dimension, and heart orientation dimension) to determine if there were any significant relationships among or between any of the three categories of the independent variable. In addition to the data analysis that was directly related to the research questions and the null hypotheses, further data analysis was done for the individual questions in the biblical worldview survey to determine if any of those questions showed a statistically significant difference among or between the categories of the independent variable. That

additional analysis found that six questions did demonstrate a statistically significant difference: questions 10, 16, 30, 35, 39, and 44.

Results of the data analysis in this study indicated that all three of the null hypotheses failed to be rejected. The analyses done both in the ANOVA and the Tukey tests demonstrated that there was no statistical significance among or between the three categories of the independent variable in the means of the overall biblical worldview scores or in the means of the scores in any of the dimensions in the subcategories. Considerable differences between the means existed for some of the categories of the independent variable in the overall biblical worldview scores and the sub category scores, but none of those reached a statistically significant difference. Those comparisons demonstrating considerable differences will be highlighted and discussed as each of the null hypotheses is reviewed.

Null Hypothesis One

- The result of the ANOVA showed no statistically significant difference in biblical worldview among the three categories of the independent variable.
- The difference between the means of the biblical worldview scores for the substantial versus none pairing was not statistically significant, but it was considerable with the substantial group having the greater mean.
- The propositional sub-dimension approached statistical significance in both the ANOVA and the Tukey test in the substantial versus none pairing.
- Analysis of the behavior and heart-orientation dimensions seemed to indicate a considerable level of similarity in the given pairing for those sub-dimensions.

The results for null hypothesis one demonstrated that there was no statistically significant difference between the biblical worldview scores of students who had a substantial Christian

school background and those students who had no Christian school experience. These results are similar to those that Brickhill (2010), Taylor (2009), and Weider (2013) found in their respective studies of the biblical worldview of middle school students, 12th grade students from Christian and public high schools, and Lutheran adolescents. It also echoes the findings of Moore (2006), Simoneaux (2015), and Wood (2008) who noted no significant difference in the biblical worldview of students and educators based on their attendance at a Christian versus secular university. It should be recognized as well, however, that the results of hypothesis one run contrary to the results found in the studies done by Barrows (2014), Francis and Sion (2014), Meyer (2003), and Perkins (2007) all of which indicated that Christian school students demonstrated a “strong biblical position on virtually all the issues explored” (Meyer, 2003, p. 167).

The difference in the means between the substantial and none groups in the propositional sub-dimension supports the observation made by Bryant (2008) that the Christian high school students he studied demonstrated a “consistent orthodox doctrine in their responses, if not always in their behavior” (p. 3). Christian school students seem to demonstrate a strength in the cognitive and knowledge-based aspects (propositional) of a biblical worldview that does not carry over to the behavior and heart-orientation dimensions. Damon (1999) noted in his theory of moral identity development that moral knowledge is not enough to impel moral action and this result is consistent with that idea. This result also echoes back to Sire (2009) who maintained that worldview is a spiritual orientation involving more than knowledge and cognitive processes alone and points to a need for further examination.

The adolescent stage that high school students experience is a period when identity (self, moral, and religious) is still forming and facing major developmental transition (Damon, 1999;

Erikson, 1968; Fowler, 2001; Kohlberg & Hersh, 1977). Cognitive formation and the accrual of knowledge are the foundational and initial pieces in that development, while the behavior and heart-orientation dimensions are somewhat less developed and continue to change, build, and mature as the individual does. The difference in means seems to indicate a difference in content, but comprehensive moral identity development is more about form and process than content (Kohlberg & Hersh, 1977). The development of students' moral and religious identity, especially in the behavior and heart-orientation dimensions, undergoes considerable formation and transformation in the stages following adolescence as individuals encounter cycles of crisis and commitment (Baltazar & Coffen, 2011; Fisherman, 2002; Kohlberg & Hersh, 1977; Marcia, 1966).

Null Hypothesis Two

- The difference between the means of the biblical worldview scores and those of all three sub-dimensions for this minimal versus none pairing indicated a considerable level of similarity.
- In the analysis of every dependent variable category, the mean difference between the minimal attendance group and none showed that the average mean was lower for the minimal attendance group.

The data analysis for null hypothesis two showed no statistically significant difference between the biblical worldview scores of students who had a minimal Christian school background and those students who had no Christian school experience. The definition of minimal Christian school experience used in this study meant that the respondent had attended Christian school for less than three consecutive years beyond grade 6 or only at the elementary/middle school level. These results are similar to those attained by several earlier

studies. Brickhill (2010) found that the type of elementary school attended by the middle school students she studied had no significant difference when compared to their biblical worldview scores. The results of this study did not clearly distinguish between elementary and middle school in its analysis, but the results indicate similar findings as Brickhill. Attendance in elementary/middle school for any length of time indicated no statistically significant difference in students' biblical worldview.

The results of null hypothesis two also support the findings of Bryant (2008), Meyer (2003), and Weider (2013), which showed no significant difference in the strength of Christian high school students' biblical worldview in relation to their length of enrollment in a Christian school. Taylor (2009) had determined in his study that the number of years students attended Christian school did make a significant difference, but Taylor also noted that the difference occurred when that length of enrollment was for seven or more years. This study used three years attendance or attendance only at the elementary/middle school level as the determinant between substantial school experience and minimal. These parameters for attendance would support Taylor's findings and his seven-year benchmark as they showed no significant difference when length of enrollment was for less than three years or only at the elementary/middle school level (Taylor, 2009).

Null Hypothesis Three

- The difference between the means of the biblical worldview scores and those of all three sub-dimensions for this substantial versus minimal pairing was not statistically significant.

- The difference between the means for the propositional sub-dimension was not statistically significant for this pairing, but it was considerable with the substantial group having the greater mean.
- Analysis of the behavior and heart-orientation dimensions seemed to indicate a considerable level of similarity in the given pairing for those sub-dimensions.

Null hypothesis three indicated that there was no significant difference between any of the dimensions of the dependent variable (biblical worldview, propositional, behavior, heart-orientation) for the substantial and minimal categories of the independent variable. These results again support the findings of Bryant (2008), Meyer (2003), Taylor (2009), and Weider (2013) concerning length of attendance in a Christian school. Students' length of enrollment with an emphasis on attendance in secondary school, as determined by the definition in this study for substantial Christian school experience (three years or more in middle/high school), did not demonstrate a significant difference in biblical worldview. The focus on secondary attendance was intentional to determine if attendance in those years had a significantly different effect on biblical worldview than attendance in the earlier years of schooling. This study found that it did not. Studies done by Barrows (2014), Francis and Scion (2014), Meyer, and Perkins (2007) found that Christian school students had strong biblical worldview scores, but none of those results were correlated with length of enrollment.

The results of the analysis for this pairing did find that there was a considerable, though not statistically significant, difference in the means of the substantial and minimal groups in the propositional dimension scores. This result is similar to that found in the difference of the propositional means between the substantial and none categories. These results suggest that substantial attendance may help students to develop a stronger biblical worldview in the

propositional dimension (Bryant, 2008). Similar to the results of the analysis between substantial and none, the results of the analysis for substantial and minimal showed considerable similarity in the behavior and heart-orientation dimensions. The moral development theories of both Kohlberg (Kohlberg & Hersh, 1977) and Damon (1999) provide insight for this result as adolescents' moral and religious identity development is in an ongoing transformational process that is shaped by a variety of factors. Damon specifically points to parents, peers, and communities as sources of considerable influence and asserts that moral knowledge does not compel moral action. The results of this hypothesis and study seem to support that assertion.

Additional Analysis

Following the data analysis that was directly related to the research questions and the null hypotheses, additional data analysis was done for the individual questions in the biblical worldview survey to determine if any of those questions showed a statistically significant difference among or between the categories of the independent variable. That additional analysis found that six questions did demonstrate a statistically significant difference as a result of both the ANOVA and Tukey tests: questions 10, 16, 30, 35, 39, and 44. Several key observations can be derived from these six questions.

All six of the questions that demonstrated statistical significance were from the propositional dimension. Three of those questions centered directly on salvation or "going to heaven," one dealt with the concept of human depravity, one with the value of life, and one with viewing God primarily as a means to an end rather than as a personal, relational being. The propositional nature of the questions was consistent with the considerable difference in means that was noted in the propositional dimension in both the substantial versus none and substantial versus minimal comparisons in hypotheses one and three. In comparing the categories of the

independent variable for these six questions (substantial vs. none and substantial vs. minimal), two of the questions demonstrated a significant difference in both pairings: one of the questions that dealt with salvation and the question that addressed human depravity. Two questions showed a significant difference in the substantial versus none category only: one question on salvation and the question on God as a personal, relational being. Two questions had a significant difference in the substantial versus minimal category: one dealt with the value of life and one with salvation. Again, it needs to be noted that all of these questions were of a propositional nature, and there continues to be an indication that Christian school attendance may strengthen this aspect of biblical worldview development (Bryant, 2008).

An examination of the descriptive profile of the participants will prove beneficial to further discussion. Below is a profile that highlights some of the unique characteristics for this group of participants drawn from the demographic survey that each one submitted as part of the study.

Descriptive Profile of Participants

- The vast majority of participants were female: 78%
- Most participants were between the ages of 30 – 49 years: 65%
- A minority of the participants had any Christian school experience whatsoever: 27%
- Two church denominations accounted for half the participants: Southern Baptist, 23% and Non-denominational, 27%. The only other denominational category with double-digit percentage was Pentecostal/Charismatic at 14%.
- Church attendance was frequent with 72% reporting at least weekly attendance; however, another 20% reported attending less than monthly: occasionally or never.

- Bible reading had similar divergent poles with 55% reporting reading at least 2-3 times weekly and 26% reading monthly or less.
- Frequency of prayer was high with 80% reporting that they prayed daily.
- All but 7% of the participants were raised in a home with at least one Christian parent.

This profile captures particular characteristics of the participants in this study, which need to be considered in the thoughtful and critical examination of the study's findings and in the processing of both conclusions and implications. Three items in particular should be noted. The vast majority of participants are female; two denominational categories accounted for half of all participants; almost all participants were raised in a home with at least one Christian parent. These elements will be explored in drawing conclusions from the study as well as discerning its implications.

Conclusions

One of the primary distinctives of Christian schools is to instruct, guide, and disciple students in the development of a biblical worldview. Christian schools have purposefully endeavored to foster the merger of faith and intellect in the development of their students' worldview. But while this mission is boldly declared, it has been demonstrated that little research has been done to determine the effectiveness of this endeavor (Boerema, 2011). This study was undertaken to determine if attendance at a Christian school did actually aid or foster the formation of a biblical worldview. Are Christian schools effective in developing the biblical worldview they purport to be at the core of their purpose and uniqueness? Do Christian young people who attend Christian school emerge with a biblical worldview that is significantly different from their Christian peers who do not attend such schools? The results of this study failed to reject any of the three null hypotheses that were derived from its research questions

indicating that there was no statistical difference shown that would affirm that attendance at a Christian school resulted in the development of a biblical worldview that's significantly different from the biblical worldview of students who did not attend a Christian school. Several conclusions can be drawn from these findings.

The first and most obvious conclusion is that Christian schools are ineffective in developing a biblical worldview in their students. Christian children and youth who do not attend Christian school, or do so minimally, do not have a biblical worldview that's significantly different from their peers who attend Christian school. These results are likely difficult for Christian educators to read and even believe, but the reality is that there is a bigger picture that needs to be seen in culling through the results of this study and the data analysis. One of the notable pieces to that deeper examination is the consistent, considerable difference in means that occurred, and in some cases approached statistical significance, in comparing both overall biblical worldview and the propositional dimension. It can be suggested from these considerable differences in means that attendance at a Christian school may account for some difference in students' overall biblical worldview, but especially so in the propositional dimension. This can also be seen in the additional analyses that were done for the individual questions in which six questions, all from the propositional dimension, demonstrated statistically significant differences both among and between the groups. So while statistical significance was not realized in any of the hypotheses, there are indications that Christian school attendance may help to develop a stronger biblical worldview, especially in the propositional dimension.

The second conclusion that can be drawn is that Christian schools are helping to develop the propositional aspect of students' biblical worldview, but are not affecting in any considerable or measureable way the behavior and heart-orientation dimensions. While the difference in

means for the propositional dimension was considerable across all the comparisons, the differences in means for the behavior and heart-orientation dimensions was negligible. The means in these dimensions were quite similar for all three categories of the independent variable. This seems to indicate that Christian schools may be having some effect in helping students acquire biblical knowledge, concepts, and principles (the propositional), but are not influencing the development of either the behavior or heart-orientation dimensions.

The fact that the propositional dimension seems to be more developed than the behavior and heart-orientation dimensions may also be a result of the passage of time. The average age of almost half (46%) of the participants was 40 or older and 75% were 30 and older. The moral and religious identity development of the participants since graduation from high school may serve to explain how over time any significant difference that may have existed in the behavior and heart dimensions has dissipated as a natural result of the crises and commitments the participants have experienced (Baltazar & Coffen, 2011; Fisherman, 2002; Kohlberg & Hersh, 1977; Marcia, 1966). It stands to reason that information and concepts learned in high school (the propositional) could more readily stand the test of time and undergo little change while the ongoing development of the behavior and heart-orientation dimensions would be more strongly affected by life experiences and result in a shift toward similarity and commonality in those areas.

It was noted earlier in this chapter in a review of the descriptive profile of participants that there were several unique characteristics for this particular group. Two of those unique characteristics may have had a noteworthy effect on some of the results of the study. The first is the lack of diversity in denominational preference. Half of the participants came from just two denominations: Southern Baptist and non-denominational. These denominational backgrounds

could be factors in the strength of participants' biblical worldview. Bryant (2008) found that denominational preference was a statistically significant factor in his study of the biblical worldview of Christian high school students, and with such a large number of participants from two denominations, this lack of denominational diversity must be recognized as potentially influencing the study's results. The second significant characteristic of this group is that 93% of them were raised in a home that had at least one Christian parent or guardian. Multiple studies have shown that the spiritual home environment is a statistically significant factor in biblical worldview development (Perkins 2007; Van Meter, 2009; Wilkie, 2015). The fact that 93% of these participants were raised in a home environment with at least one Christian adult and 67% were raised in a home with parents and/or grandparents all of whom were Christian has to be considered as another potential factor in the study's results. This could well account for the results showing a difference in the propositional dimension (Christian school attendance effect) and similarities in the behavior and heart-orientation dimensions (spiritual home environment effect).

One of the conclusions that can be drawn from the additional analyses that were done in examining the individual biblical worldview assessment questions for statistical significance is that the nature and topics addressed in those six questions point to a difference in belief centered on religion as relationship versus religion as rules and ritual. The three questions dealing with salvation and the respondent's likelihood of going to heaven made a clear distinction between faith and works in which the minimal and none groups saw their observance of religious ritual as a key component of their ultimate salvation whereas the substantial group discounted that same observance as inconsequential to their salvation. The propositional differences that showed themselves to be statistically significant focused on the nature of man (depravity), the nature of

God as a personal, relational being, and the means of salvation. The fact that three of the six questions dealt with salvation and two others with the nature of God and man may be attributable to theological orientations influenced by denominational preference or even the influence of the home if the spiritual environment was strongly denominational.

The last notable result of the study that deserves discussion is the difference in means that was found when the minimal and none groups were compared. This comparison resulted in a difference of means for all four areas of analysis in which the minimal group was consistently below the none group. In other words, the none group had a mean that suggested a stronger biblical worldview than the group who had attended a Christian school for at least part of their educational experience. While this difference in means was not a statistically significant difference and not too much emphasis or attention should be given to it, it is a result that needs to be noted, as it seems contrary to what would be expected. No conclusions should be drawn from this, but it was an interesting and surprising result that simply needed to be recognized.

Implications

There are a number of results and conclusions from this study that should give Christian educators reason to pause for critical thought and contemplation. First of all, from a more global perspective, here is another one of several studies that have been done in the past 10-12 years, which adds to the varied reports on the effectiveness of Christian schools in developing a biblical worldview in their students. An examination of those studies results in a mixed bag of results. For every study that demonstrates that Christian school students have a strong biblical worldview, there is another that shows that they do not have a biblical worldview that is significantly different from their peers. Or, even worse, a study that shows Christian school students to have a biblical worldview that is significantly below the average. If nothing else, one

has to ask the question, why such mixed results. While there is nothing in this collection of studies that says what Christian schools are doing to develop a biblical worldview in their students should be deconstructed and rebuilt, neither is there an endorsement for current methods and practices. The first implication calls for honest self-examination of current practices and conditions to assess the reason for the inconsistency of results that emerge from these studies.

Looking more closely at this particular study, one of the primary implications is that Christian schools and Christian educators may be making progress in helping students develop a biblical worldview in the propositional dimension, but that they need to explore ways to develop the behavior and heart-orientation dimensions. Educators need to find a way to develop biblical behavior and biblical hearts. The results of this study imply that the current approach focuses on the propositional, assuming that once a student has the knowledge and intellectual understanding that the behaviors and heart-orientation will subsequently follow. This is the exact opposite of Damon's observation concerning moral action. Moral knowledge is not enough to impel moral action and the assumption that it is prevents the action steps necessary for the development of biblical behavior and a biblical heart-orientation (Damon, 1999).

The implication is for active teaching: life-on-life discipleship that models biblical behavior and heart-orientation with a less academic approach. The reasonable and logical implication is that biblical worldview must be developed not solely in the classroom, but also in discipleship groups, mentoring relationships, and service opportunities. These activities can and should be done within the school organization, but it must reach beyond what is programmed and conducted by the school. Institutional modeling of behavior and heart-orientation is essential and appropriate, but personal, genuine modeling by the teacher holds the promise for being highly effective and impactful.

This naturally implies that the success of biblical worldview development in students is going to rely heavily on the character, life, and life-style of the teacher(s). An individual can only model who and what he or she is, and there must be a concomitant heart and attitude that genuinely wants to impart life and time and energy into students. This reality makes it incumbent upon Christian school administrators to find and hire faculty and staff who are committed to biblical worldview development and to then supply them with the resources they need to affect it in students. Much emphasis is placed on hiring teachers with a strongly propositional biblical worldview. The implications of this study suggest that equal emphasis be placed on the behavior and heart-orientation dimensions of teachers' biblical worldview in the interview and hiring process. If not, it is unlikely change will occur in the biblical worldview development of the students in those schools.

One of the challenges in addressing the implications that have been enumerated so far lies in the development of the heart-orientation dimension. Modeling and developing biblical behavior is a more tangible task and presents clear choices in methodology. Behavior can be modeled and molded, but how does one mold a heart? This then begs the question as to whether molding a heart is within a teacher's capacity. Heart-orientation can be verbalized; it can be illustrated; but can it be genuinely realized? One of the significant determiners of biblical worldview in several of the studies referenced in this paper was the depth of personal commitment and relationship with Christ (Brickhill, 2010; Meyer, 2003; Wilkie, 2015). This may be the prerequisite to actual heart-orientation. "I will give you a new heart and put a new spirit in you; I will remove from you your heart of stone and give you a heart of flesh" (Ezekiel 36-26, NIV). One of the implications may be that Christian schools are limited in their capacity to effect complete biblical worldview development. Both the propositional and behavior

dimensions offer methods for their development, but it may not be in the school's immediate power to affect heart-orientation. The school may have the wherewithal and ability to provide fertile ground for its development, but it may likely be the work of the Holy Spirit more than a man or man's institution.

The final implication from this study is the need to calibrate expectations. Every Christian school is unique and so is the community it serves, which may account for the mixed results that biblical worldview studies generate. The effectiveness of a particular school's biblical worldview development depends significantly on the students and families they serve. Some schools serve families with a diversity of faith, cultural, and socioeconomic backgrounds. The extent to which students and families are fully aligned with a school's mission, vision, and values will in large measure determine the extent of biblical worldview development that can occur (Van Meter, 2009). Such conditions should not deter educators from pursuing biblical worldview development; rather, they should do so realizing that their effectiveness is limited by factors (home environment, peers, etc.) that are beyond their control. Calibrating expectations is essential to measuring success and maintaining both energy and enthusiasm.

Limitations

This study has added significant information to the study of biblical worldview formation in Christian schools, but it is not without limitations. The first limitation centers on the population surveyed and tested. The sample population was of a sufficient overall size to generate valid results, but the ratio of participants for the three categories of the independent variable (substantial Christian school experience, minimal Christian school experience, and no Christian school experience) was not as equally distributed as this researcher had hoped they would be. The population tested was predominantly from the none category (73%). Only 15%

of the population was categorized as substantial and the remaining 13% were categorized minimal. Also, given that the population tested was graduate students, from a socioeconomic perspective they may or may not be a representative sample of the general population of Christians who have graduated from high school.

The second limitation of the study concerns the length of time that has passed since the participants' high school graduation. As was noted earlier, 46% of the participants were 40 years of age or older. It is assumed that the results of the assessment would accurately reflect the influence of K-12 education regardless of both the length of time that has passed since high school graduation and the participants' educational experiences since that graduation.

Selection within the population tested is a limitation because of the uncertainty surrounding the inclusion in the study of students representing a variety of regions and backgrounds. The demographic survey did not collect that type of data. The population might not be as broad or diverse as it should be to generalize or apply the conclusions reached to other settings. Additionally, the survey did not have the capacity to distinguish or consider all the variables that could affect biblical worldview development in this population of graduate students. Additional analysis would need to be done to determine other potential influences. Finally, a self-selected population of participants has the potential to skew the results of the assessment. Self-selected participants could be predisposed in their thoughts and attitudes toward Christian schools and/or biblical worldview development. This could be either a positive or negative disposition.

Recommendations for Future Research

While there has been an increase in the research studies done with Christian schools concerning biblical worldview development, there remains a tremendous need for continued and

varied research. One of the strong recommendations is to conduct a study similar to this one, but with a large population of fall, first semester, freshmen on a Christian college campus. This would allow the researcher to survey and assess the participants when the influence of their high school experience (Christian or otherwise) has not suffered the passage of time or other significant influences (the college experience, marriage, career, etc.). It offers the best opportunity to assess the impact that their K-12 scholastic experience has had on their biblical worldview. The same worldview assessment instrument could be used, but the demographic survey should be constructed to capture data on those variables that could potentially affect biblical worldview development. That data could include information on denomination, spiritual climate of the home, personal faith commitment, church attendance, youth group involvement, and so forth. It would also be important to have a large sample population to ensure a sufficient number of participants who have attended Christian school.

Additional research needs to be conducted that takes into account the type and nature of the Christian schools that participants attended. Studies that have been conducted recently do not take this factor into account and assume a homogeneity of Christian schools that is simply not there. Some schools are covenantal, some are evangelistic, some are discipleship oriented, some have selective admissions and some have open enrollment. Location should also be taken into account as schools will vary greatly according to their setting: rural, suburban, and inner-city. Socioeconomics is certainly a factor to be considered. Biblical worldview development, in both its methodology and effectiveness, will likely demonstrate great variety when all these factors are taken into consideration.

Research should be undertaken that studies how Christian schools approach biblical worldview development and determine which of those methods or approaches yields the most

promising results. Additionally, that research could specifically explore if schools are addressing all three dimensions (propositional, behavior, and heart-orientation) of biblical worldview development. It could also study intentionality, programming, institutional commitment, and level of teacher involvement. Any one of those areas alone could be a focus of the study.

Along these same lines, research should be conducted that assesses and compares the biblical worldview scores of all the immediate members within a school community. Such a study could determine if there is a significant relationship among/between the biblical worldview scores of students when compared to the scores of the school's administration, faculty, and staff. Biblical worldview development does not take place solely in a classroom instructional setting and such a study would consider the influence of the school community as a whole on students' biblical worldview development. This study could be undertaken in a single school, but would yield more beneficial data if conducted simultaneously in multiple schools. Including school parents in such a study would certainly be desirable, but likely difficult.

Because biblical worldview development does not take place in the classroom alone, a study of the effect of Christian schools' service and ministry programs on students' biblical worldview development would provide valuable data that is currently lacking. What effect do service clubs, ministry teams, and mission trips have on biblical worldview development? As this study indicated that Christian schools may be effective in developing the propositional dimension, it would be worthwhile to see if programs and practices that encourage the behavior dimension have a significant effect in that area or if they may also affect the propositional and the heart-orientation. Part of such a study could additionally examine if there is a difference between volunteer and required service hours in affecting biblical worldview development.

While beyond the scope of research typically done for a doctoral dissertation, a longitudinal study should be undertaken that follows a population of Christian school graduates and assesses their biblical worldview development from that point of graduation through the life milestones that they encounter (approximately every five years: high school graduation, college graduation, marriage, family, etc.). It would be worthwhile to explore this to see if and how biblical worldview changes with the passage of time and if attendance at a Christian school makes a significant difference in that development.

Finally, this study collected and secured demographic data that were not fully discussed and/or analyzed in the course of the research conducted. Additional research could be done with this data to determine if there may be other influences that significantly affect biblical worldview development. Some of the factors that could be studied and used for data analysis are gender, age, denominational preference, spiritual environment of the home, and frequency of church attendance, bible reading, or prayer. In addition, the study as a whole could be replicated in a different setting or with a different population to see if similar results are attained.

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APPENDICES

Appendix A: Demographic Survey

1. What is your current age?

- 20 – 29
- 30 – 39
- 40 – 49
- 50 – 59
- 60+

2. From which of the following high schools did you graduate?

- Public
- Private Christian
- Private Non-Sectarian (non-religious)
- Homeschool

3. What is your gender?

- Male
- Female

4. Have you ever attended a Christian School?

- Yes
- No

5. Select the option that best captures your experience.

- I attended Christian school for 3 or more consecutive years beyond 6th grade
- I attended high school in a Christian school for two or more consecutive years
- I attended a Christian school for a time, but do not fit into either of the above categories
- Not applicable

6. How long have you been a professing Christian (accepted Jesus Christ as your personal savior)?

- Not a Christian
- Less than one year
- 1-3 years
- 4 or more

7. What denominational church do you most frequently attend?

- Anglican
- Southern Baptist
- American Baptist
- Free Will Baptist
- Independent Baptist
- Independent Bible Church

- Episcopal
- Lutheran
- Mennonite/ Anabaptist
- Methodist/Wesleyan
- Non-denominational
- Pentecostal/Charismatic
- Presbyterian (PCA)
- Presbyterian (USA)
- Presbyterian (ARP)
- Roman Catholic
- Do not attend church
- Other (please specify the denomination) _____

8. How often do you attend church?

- Several times a week
- Weekly
- Several times a month
- Monthly
- Occasionally
- Never

9. Are the adults who raised you in their home (i.e., parents/guardians/grandparents) professing Christians?

- Both
- One
- None
- All
- Other

10. How frequently to you read the Bible?

- Daily
- 2-3 times a week
- Weekly
- Monthly
- Rarely or not at all

11. How frequently do you pray?

- Daily
- 2-3 times a week
- Weekly
- Monthly
- Rarely or not at all

Appendix B: Three Dimensional World Survey

Form C (3DWS-Form C)© 2013 Katherine G. Schultz, unpublished instrument (used with permission). Participants record their responses in a standard five-category, Likert scale

Item No. Content (*3DWS-Form C*)

<http://digitalcommons.liberty.edu/doctoral/733/>

Appendix C: Invitation to Participate in a Vital Research Study

Date: 6/16/15

Dear Fellow LU Graduate Students:

As a graduate student in the Education department at Liberty University, I am conducting research as part of the requirements for an Ed.D. in Educational Leadership. The purpose of my research is to investigate the impact of Christian schools on the development of their students' biblical worldview. The research will determine if there is a significant difference in the biblical worldviews of Christian students who graduated from a Christian school and/or who attended Christian school for a significant amount of time when compared to Christian students who graduated from a public, private, (non-sectarian), or home school and/or had no significant Christian school experience. This study seeks to answer the oft unspoken question as to whether Christian schools are effectively doing what many of them seek and claim to do: shaping the minds, hearts, and behaviors of their graduates to reflect a biblical worldview, and I am writing to invite you to participate in my study.

I am inviting all graduate students enrolled in education classes on campus during the week of June 22, 2015, to participate in this study through an online format using Google Forms. If you are one of these students, and are willing to participate, you will be asked to complete a short, demographic survey followed by a biblical worldview assessment. It should take approximately 10 to 12 minutes for you to complete the procedures listed. Your participation will be completely anonymous, and no personal, identifying information will be required. To participate click on the link provided and complete the attached survey: [Biblical Worldview Research Study](#).

A consent document is located on the webpage connected to the above link. The consent document contains additional information about my research, but you do not need to sign and return it. Please respond to the question at the end of the consent information to indicate that you have read the consent information and would like to take part in the survey.

Thank you again for your help and input. If you have questions or comments about this study or your participation, please email me at debaniszewski@liberty.edu.

Sincerely,

Dave Baniszewski

Appendix D: IRB Approval

LIBERTY UNIVERSITY

INSTITUTIONAL REVIEW BOARD

June 12, 2015

David E. Baniszewski
 IRB Exemption 2238.061215: The Impact of Christian Schools on the Development of Their
 Students' Biblical Worldview

Dear David,

The Liberty University Institutional Review Board has reviewed your application in accordance with the Office for Human Research Protections (OHRP) and Food and Drug Administration (FDA) regulations and finds your study to be exempt from further IRB review. This means you may begin your research with the data safeguarding methods mentioned in your approved application, and no further IRB oversight is required.

Your study falls under exemption category 46.101(b)(2), which identifies specific situations in which human participants research is exempt from the policy set forth in 45 CFR 46:101(b):

- (2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless:
- (i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and
 - (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

Your IRB-approved, stamped consent form is also attached. This form should be copied and used to gain the consent of or provide information to your research participants. If you plan to provide your consent information electronically, the contents of the attached consent document should be made available without alteration.

If you have any questions about this exemption or need assistance in determining whether possible changes to your protocol would change your exemption status, please email us at irb@liberty.edu.

Sincerely,



Fernando Garzon, Psy.D.
 Professor, IRB Chair
 Counseling

(434) 592-4054

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Appendix E: Consent Form

CONSENT FORM

The Impact of Christian Schools on the Development of their Students' Biblical Worldview

David E. Baniszewski

Liberty University

School of Education

You are invited to be in a research study of Liberty University graduate students to determine if there is a significant difference in the biblical worldviews of individuals based on the types of K-12 schools they attended. The study will help to determine how effective Christian schools are in developing a biblical worldview in their students. You were selected as a possible participant because you are a currently enrolled graduate student at Liberty University. I ask that you read this form and ask any questions you may have before agreeing to be in the study.

David E. Baniszewski, a doctoral candidate in the School of Education at Liberty University is conducting this study.

Background Information:

The purpose of this study is to determine if Christian school graduates have developed a biblical worldview that is any different from Christian students who graduated from a public, private (non- sectarian), or home school.

Procedures:

If you agree to be in this study, I would ask you to do the following things: Complete two anonymous surveys. a. The first is a simple, 11 question, demographic survey that captures information on the type of school(s) you attended (public, private, home school, Christian) and your Christian background and denomination. b. The second is a research survey instrument that has a list of 76 questions used to evaluate biblical worldview. The survey questions employ a standard Likert scale in their format.

Total time for completing both surveys is about 15 minutes.

Risks and Benefits of being in the Study:

The study involves minimal risk. That is, the risks are no more than you would encounter in everyday life. In addition, the surveys are anonymous and ask for no identifying information that could be linked to you individually. Privacy and confidentiality are ensured.

The benefits to participation lay in the benefit that this study will have in contributing new and/or additional information to Christian schools and those individuals and institutions interested in biblical worldview development. There are no direct benefits to you as a participant. Your participation may lend greater insight into the effectiveness of the programs and procedures in Christian schools who seek their students' healthy spiritual formation.

Compensation:

There is no compensation for your participation. You are volunteering your time and involvement.

Confidentiality:

The records of this study will be kept private. In any sort of report I might publish, I will not include any information that will make it possible to identify a subject. Research records will be stored securely and only the researcher will have access to the records.

The data will be kept in a password-protected file on my personal laptop. No one will have access to the data but me. After the required three-year period for maintenance of the data expires, I will permanently delete the data from my laptop.

Voluntary Nature of the Study:

Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with Liberty University or any of its faculty and staff. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.

Contacts and Questions:

The researcher conducting this study is David E. Baniszewski. You may ask any questions you have now. If you have questions later, you are encouraged to contact him at debaniszewski@liberty.edu. Mr. Baniszewski's advisor is Dr. Ellen Lowrie Black, elblack@liberty.edu.

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, you are encouraged to contact the Institutional Review Board, 1971 University Blvd, Suite 1837, Lynchburg, VA 24515 or email at irb@liberty.edu.

Please notify the researcher if you would like a copy of this information to keep for your records.

Statement of Consent:

I have read and understood the above information. I have asked questions and have received answers. I consent to participate in the study.

(NOTE: DO NOT AGREE TO PARTICIPATE UNLESS IRB APPROVAL INFORMATION WITH CURRENT DATES HAS BEEN ADDED TO THIS DOCUMENT.)

The Liberty University Institutional Review Board has approved this document for use

from June 12, 2015 to -- Protocol # 2238.061215