

A CORRELATION AND CAUSAL-COMPARATIVE STUDY OF THE CHRISTIAN
WORLDVIEW OF
K-12 CALIFORNIA CHRISTIAN EDUCATORS

by

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ABSTRACT

Christian schools identify developing a Christian worldview in students as an important component of the school's mission. Many influences affect student achievement. The teacher is one of those influences. At a Christian school, it is reasonable to expect that educators possess a Christian worldview. This study sought to examine the Christian worldview of K-12 Christian educators from ACSI member Christian schools in California. Participants took the *Three-Dimensional Worldview Survey (3DWS)* and the *Worldview Measurement Project Survey (WMPS)*. Christian educators participated in this study voluntarily and anonymously. The survey results were analyzed to determine if the *3DWS* correlated to the *WMPS* and to determine if there was a statistically significant difference in the Christian worldview of Christian educators who earned teaching credentials from a Christian program, a secular program, or who had no credential. A Pearson product-moment correlation was used to correlate the *3DWS* composite mean scores with the *WMPS* composite mean scores using. Results of the correlation analysis showed a strong, positive correlation between the participants' composite mean scores on the *3DWS* and their mean scores on the *WMPS*. An Analysis of Variance (ANOVA) was used to compare Christian educators' Christian worldview grouped by credentialing institutions. The results showed no statistically significant difference in participants' Christian worldview scores based on their credentialing institution. Further research should explore this disposition with a larger population of Christian educators in various geographical locations.

Keywords: Christian worldview, Christian school, Christian educational philosophy, Christian pedagogy, teacher effectiveness, curriculum integration, transformational faith

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Table of Contents

ABSTRACT 2

Acknowledgements 3

List of Tables 7

List of Figures 8

List of Abbreviations 9

CHAPTER ONE: INTRODUCTION 10

 Overview 10

 Background 10

 Problem Statement 14

 Purpose Statement 16

 Significance of the Study 19

 Research Questions 20

 Definitions 20

CHAPTER TWO: LITERATURE REVIEW 24

 Overview 24

 Introduction 24

 Theoretical Framework 25

 Conceptual Framework 27

 Secular Humanist Worldview Versus Christian Worldview 36

 Related Literature 44

 Summary 65

CHAPTER THREE: METHODS	67
Overview.....	67
Design	67
Research Questions.....	68
Null Hypotheses.....	68
Participants and Setting.....	69
Instrumentation	69
Procedures.....	79
Data Analysis	81
CHAPTER FOUR: FINDINGS	85
Overview.....	85
Research Questions.....	85
Null Hypotheses.....	86
Correlation Descriptive Statistics	86
Correlation Results.....	88
Descriptive Statistics.....	93
ANOVA Results	99
CHAPTER FIVE: CONCLUSION.....	103
Overview.....	103
Discussion.....	108
Implications.....	111
Limitations	113
Recommendations for Future Research	114

REFERENCES	117
APPENDICES	133
Appendix A: Consent Form for Participants	134
Appendix B. Permission Letter from Participating Schools.....	136
Appendix C. IRB Approval	138

List of Tables

Table 1 Comparison of Christian Worldview and Humanistic Worldview.....	37
Table 2 Comparison of Goals between Humanist Education and Christian Education	39
Table 3 Changes fro <i>3DWS</i> to <i>3DWS-Form T</i>	76
Table 4 Summary of Demographics for Initial Results	88
Table 5 Summary of Cronbach's Alpha Scores	93
Table 6 Summary of Demographics for <i>3DWS-Form T</i>	94
Table 7 Summary of mean Scores on Dependent Variable for Each Category.....	95
Table 8 Summary of Shapiro-Wilks Test for Normality	97
Table 9 Summary of Test for Homogeneity of Variance	98
Table 10 ANOVA Summary for Composite	99
Table 11 ANOVA Summary for Proposition	100
Table 12 ANOVA Summary for Behavior	101
Table 13 ANOVA Summary for Heart-Orientation	101

List of Figures

<i>Figure 1.</i> Simple Scatter with Fit Line of <i>3DWS</i> Composite Score by <i>WMPS</i> Composite Scores	90
<i>Figure 2.</i> Simple Scatter with Fit Line of <i>3DWS</i> Composite Score by <i>3DWS</i> without Reverse-scored Items Composite Score.....	91

List of Abbreviations

A One-way Analysis of Variance (ANOVA)

Association of Classical & Christian Schools (ACCS)

American Culture and Faith Institute (ACFI)

Association of Christian Schools International (ACSI)

Creationist Worldview Test (CWT)

Cronbach's Alpha (Cronbach's α)

Graduate Record Exam (GRE)

Internal Review Board (IRB)

Predictive Analytics Software (PASW)

Principal Component Analysis (PCA)

Three-Dimensional Worldview Survey (3DWS)

Young Earth Creationist (YEC)

Worldview Measurement Project Survey (WMPS)

CHAPTER ONE: INTRODUCTION

Overview

Since the mid-1960s, the disenchantment with the increasing secularization of state schools and the resurgence of the evangelical faith, have led conservative evangelical Christians and their churches to establish alternatives to secular education. These schools claim to offer a Christian education instead of the blatantly humanistic secular education offered in the public schools. Christian schools, administrators, and educators strive to educate students to develop a Christian worldview and to live intimately with God (Van Brummelen, 2009). This Christian worldview education requires that administrators and teachers have a Christian worldview that influences every word and action in the school and in the classroom (Schultz & Swezey, 2013). Unfortunately, many Christian administrators and teachers in Christian schools either do not have a Christian worldview or separate their Christian worldview and beliefs from their educational practices (Lewis, 2015). This combined quantitative correlation and causal-comparative study sought to identify if Christian educators possess a Christian worldview and also to compare the Christian worldview of Christian educators who earned teaching credentials from a Christian institution with Christian educators who earned teaching credentials from secular institutions or who had not earned teaching credentials. This chapter presents the background of the life with God, the development of Christian schools, the influences that led to this study, the problem addressed in the study, the purpose and significance of the study, and an overview of the questions the study sought to answer.

Background

God has called His people, His church, to be a holy people and a kingdom of priests (1 Peter 2:9 New International Version), the body of Christ (Romans 12:5, 1 Corinthians 12:12-27,

Ephesians 3:6 and 5:23, Colossians 1:18 & Colossians 1:24) and the bride of Christ (Revelation 22:17). Throughout both the Old Testament and the New Testament, God initiated a covenant relationship with His people, first with the Israelites and then with the church, called the Immanuel principle, which is God with us. The Immanuel principle states, "I will be your God and you will be My people" (Brueggemann, 2010; Foster & Helmers, 2008). Immanuel is one name for God comprised of two Hebrew words. The first word a preposition, *Immanu*, means 'with us.' The second word, *El* means 'God' (Burrige, 2017). Cox, Hameloth, and Talbot (2007) assert that the Bible narrates God's providence in bringing His covenant with His people to completion. He called His people to live separately from the existing cultures. His covenant people were instructed to:

Be careful and watch yourselves closely so that you do not forget the things your eyes have seen or let them fade from your heart as long as you live. Teach them to your children and their children after them. Remember the day you stood before the LORD your God at Horeb, when he said to me, 'Assemble the people before me to hear my words so that they may learn to revere me as long as they live in the land and may teach them to their children.' (Deuteronomy 4:9-10)

The Immanuel principle describes how God joins with His people and His church in love, terror, pity, pain, and wonder (Foster, Willard, Brueggemann, & Peterson, 2005). It is God being with His people and His church through the person of Jesus Christ (Burrige, 2017). In spite of man's deliberate sin and Satan's evil influences, God continues to call His people to be with Him and to live life separate from the world (2 Corinthians 6:17, & 1 Peter 2:9). To maintain this covenant relationship, God's people need to learn His principles and teach them to their children.

The early American education system opened firmly on Massachusetts General Court legislation of 1642 and 1647 (Cothran & Lowe, 2011; Eckert, 2014). Early public schools encouraged students to develop a belief in God (Jang, 2011). Schools focused on reading and writing to teach students to read and to understand Scripture. The Christian faith and its principles not only built the primary schools but also developed faith-based colleges and universities (Gangel & Benson, 2002). This educational belief and practice emphasized cultural and civic engagement “thoroughly guided by the teachings of the Bible and Christian leaders” (Slater, 2012, p. 17). Unfortunately, over the years, the American secular education system lost its initial principle foundation and focus on God and scripture (Anthony & Benson, 2011). Secularization of education and culture has influenced the educational system (Kinnaman, 2011).

As early as the 1920s, American Protestant Christians began to "reestablish a Christian nation that had faded over the decades" (Slater, 2012, p. 19). In 1942, J. Elwin Wright and Harold Ockenga began the National Association of Evangelicals. At its first meeting in 1942, Wright and Ockenga called the association to establish and to support private Christian education (Slater, 2012). In 1947, Mark Fakkerna suggested the creation of a national organization to support existing Christian day schools. The 1947 meeting of the National Association of Evangelicals approved the establishment of the National Association of Christian Schools (Slater, 2012). The Association of Christian Schools International (ACSI), established in 1978, has become the modern-day version of the National Association of Christian Schools (Swezey, 2012).

In the mid-1960s conservative Christians began in earnest to reestablish the roots of Christian education encouraging their churches to establish private Christian schools as an alternative to secular education (Carper & Layman, 2002; Dernlan, 2013; Dowland, 2015).

Christian schools aim to come alongside parents “to instruct, guide, and disciple students in the development of a biblical worldview” (Baniszewski, 2016, p. 11) laboring to unify faith and learning while developing their students’ worldview. They offered a Christian education instead of the humanistic, secular education of the public schools (Greene, 1998; Van Brummelen, 2002). Christian schools set themselves apart from public schools and other private schools by placing the living Word, Jesus and the written Word, the Bible, at the core of their education by inserting God’s principles in their mission statements (Dockery, 2016; Schultz, 2010). These Christian schools emphasize biblical principles, open classes with prayer, provide chapel services, and employ Christian teachers (Dockery, 2016; Gaebelein, 1968; Mitchell, 2010; Wilson, 2003). These Christian teachers have the responsibility of directing students in developing an understanding of the Christian worldview, embracing the principles of the Christian worldview, and loving God and people (Simoneaux, 2015).

Even though Christian schools experienced exponential growth in the number of schools and students beginning in the 1960s (Provenzo, 1990), current research statistics indicate that over that same period of time the number of Christian churches in the United States and the number of people attending church declined (Krejcir, 2007; Rutledge, 2013). Barna Group (2011 & 2016) also reported a decrease in Bible reading, Sunday school attendance, and regular church attendance over the last 25 years. A Gallup study (2015) confirmed that church attendance for adult American Christians dropped from 91 percent in 1948 to just 61 percent by 2015. In these same studies, the Barna Group found a decline in the number of people identifying themselves as Christians. The Barna Group (2011) detected a significant difference in spiritual maturity between people under 59 years old and people above 59 years old.

A study of the *Truth Project* (Tackett, 2006) initiated this research into Christian worldview of Christian educators. In the *Truth Project*, Tackett shared the results of the Barna

Group (2003) research that indicated only “nine percent of born-again adults have a Christian worldview (p. 23). The research suggests that teachers in Christian schools may not have a Christian worldview because they earn credentialing from state institutions and receive their certification from the secular state (Wood, 2008). This research study sought to determine if the teacher’s certification process significantly influenced the development of the Christian worldview of Christian educators.

Problem Statement

The moral decline of faith in practice is the problem that initiated this study. While Christian schools have sought to develop an integrated Christian worldview among students, little research exists to assess the success or failure of the goal. Despite the responsibility Christian schools place on educators to develop a Christian worldview in students, to assist them in maintaining a Christian worldview, and encouraging them to engage in Christ-like thinking throughout life; little research exists on the Christian worldview of Christian educators (Lewis, 2015).

A search of electronic databases such as Academic Search Complete and ERIC (Education Resources Information Center) produced a limited list of scholarly literature assessing the Christian worldview of Christian educators. The search showed only four quantitative research studies. These studies were Moore (2006), Fyock (2008), Wood (2008), and Moore (2014). These quantitative studies focused mainly on the proposition aspect or beliefs of Christian educators. Moore (2006), Fyock (2008), and Wood (2008) found that only a small percentage of Christian educators have a biblical theistic worldview. The search also showed two qualitative research studies one by Crenshaw (2013) and the other by Mooney (2018). None of these empirical research studies investigated the Christian worldview of Christian educators

on the three dimensions of propositions (beliefs), behaviors (practices inside and outside the classroom), and heart-orientations (transformational spiritual faith). None of the studies used credentialing institutions as a variable.

These studies identify the teacher's worldview as a major contributing factor to the development of the students' worldview. Christian teachers influence the development of students' worldview and spiritual development (Esqueda, 2014; Moore, 2014). Oko (2014) asserts that a teacher impacts student performance, beliefs, and worldview development two to three times more than any other factor. Duffy, Muis, Foy, Trevors, Ranellucci (2016) support Oko's claim by claiming that the teacher beliefs intersect in meaningful ways with student beliefs. This lack of research creates a significant gap in the literature identifying the extent of Christian educators' Christian worldview and faith (Lewis, 2015).

This study is based on the supposition that Christian worldview considers human beings as spiritual beings comprised of a unified tripartite nature that includes mind, body, and emotions. Therefore, to assess the Christian educators' Christian worldview adequately, it was necessary to have an instrument that measures this tripartite nature (Schultz, 2010). Lindemann (2016) suggests the need for "a more extensive worldview evaluation test, similar to the Graduate Record Exam (GRE)" (p. 106). According to Lindemann (2016), this exam could assess proposition reasoning, critical thinking, analytical skills, social consciousness convictions, and heart-orientation. Lindemann (2016) identified Schultz's *3DWS* as a tool that "incorporates this type of focus" (p. 106). Lindemann (2016) suggests that this type of assessment would be a benefit "for the students' awareness as well as institutional assessment" (p. 106). This study adds to the literature by using Schultz's *3DWS* to assess the Christian worldview of K-12 educators working in Christian Schools in California.

Purpose Statement

The purpose of this combined correlation and causal-comparative study was to collect data to evaluate the Christian worldview of Christian educators teaching in a Christian environment and to assess the effect of Christian teacher credentialing programs on the formation of a Christian worldview in Christian educators. This study investigated Christian educators' Christian worldview based on propositions (beliefs), behaviors (practices inside and outside the classroom), and heart-orientations (transformational spiritual faith). It used the *3DWS*, developed by Katherine Schultz (2010) to determine the Christian educators' worldview on these three dimensions.

Initially, this study aimed to determine if a statistically significant relationship existed between the educators' Christian worldview and their credentialing institutions (Christian university, public university, or other). Other institutions or methods include private non-Christian colleges or universities and alternative credentialing programs (e.g., Teach for America or internship programs). Because of "a shortage of teachers, many schools are now hiring professionals from the community who have work experience in their content area but did not graduate from a traditional teacher education program" (Lewis, 2015, p. 74). These alternative credentialing programs allow professionals to earn teaching credentials quickly while continuing to work. The category of credentialing institutions changed from Christian university, public university, or other to Christian university, public university, or no credential because only four participants had earned teaching certification through other methods while 49 participants had no teaching credential.

This study proposed to expand the current base of literature by assessing Christian educators' Christian worldview on the three dimensions, and assessing the strength of the

relationship between the educators' Christian worldview and their credentialing institution. An invitation to participate in the study was sent to over 2000 educators employed in ACSI affiliated schools during the 2018-2019 school year. The dependent variable was the composite mean scores on the *3DWS* as well as each of the three dimensions of proposition, behavior, and heart-orientation. The independent variable was the educators' credentialing institution or method. An ANOVA was used to determine if a statistically significant difference existed between the composite mean scores and each category's mean scores on the *3DWS* by groups of K-12 Christian educators, who earned teaching certification from Christian institutions, secular institutions or other. The groups were revised after data collection. As the surveys were examined, only four surveys indicated earning teacher credentials from other methods, but 38.28% (n = 49) of the surveys' participants indicated possessing no teacher certification, so the category changed from other institutions to no teaching credentials. The four respondents, who indicated earning teaching credentials through other institutions, were combined with the secular institution group.

Schultz (2010) suggested using *3DWS* with different age groups as possible future studies. This study sought to expand the use of the *3DWS* for use with Christian educators, not a middle school or high school student population. Morales (2013) validated the *3DWS* for use with a population of undergraduate students attending Christian universities. Baniszewski (2016) built on Morales' study by using the *3DWS-Form C* with an on-campus graduate student population from the School of Education at Liberty University in Lynchburg, VA. Sixty-five and three tenths percent of the participants in this study were between 30-49-years-old: 30.6% (n = 44), 30-39-years-old and 34.7% (n = 50), aged 40-49-years-old. Since this population was of adult age and was attending classes in the School of Education, an assumption can be made that

the population was adult educators. To further validate the *3DWS* for a population of adult educators a concurrent validation test was administered.

The *3DWS* measures the individual's Christian worldview in three dimensions: propositions (beliefs), behaviors (practices inside and outside the classroom), and heart-orientations (transformational spiritual faith). The certification credentialing institution was a categorical variable used to determine groups. Then, these groups were compared using a one-way ANOVA to determine if there were significant differences between the three groups' mean scores on the composite scores of the *3DWS* as well as on each of the three dimensions of proposition, behavior, and heart-orientation. Although a direct link or causation cannot be established, it was essential to examine the Christian worldview of educators at Christian schools to ascertain the stability of the foundation of their Christian worldview.

This research study used a quantitative survey, *WMPS* to establish concurrent validity. The American Culture and Faith Institute developed the survey. The *WMPS* measures individual participant's scores on three scales. Under the direction of Dr. G. Barna, the American Culture and Faith Institute conducted a study in February 2017. This survey generated three separate scores. The categories included Biblical Belief Score, Biblical Behavior Score, and Integrated Discipline Score. Dr. Barna gave permission to the use the survey for this research. The composite scores from the *WMPS* were compared to the composite scores from the *3DWS* to see if a correlation existed between the two composite mean scores. Participants took both assessments concurrently. Concurrent validity measures the degree a new test compares to a well-established test. Participants' mean scores on the composite score of the *3DWS* were compared to their mean scores on the *WMPS* using Pearson's product-moment correlation coefficient (r) and Spearman Rho.

Significance of the Study

The findings of this study had empirical and practical significances.

As noted previously, few research studies exist that examine the worldview of Christian educators. The study not only adds to the study of Christian educators' Christian worldview, it also extends the use of the *3DWS* instrument to the adult population of Christian educators. It gives Christian credentialing institutions and Christian school administrators a valid empirical instrument for measuring the Christian worldview of Christian educators on their beliefs, behaviors and heart-orientation.

The findings of this study produced practical suggestions for improving Christian teacher education programs during pre-service credentialing programs. The *3DWS* highlights participants' high and low score and gives suggested opportunities to develop the low area biblically (Morales, 2013; Schultz, 2010). The identified low areas of the assessment could assist teacher-credentialing educators in aligning their instructional content and curriculum materials to help develop the Christian worldview of Christian educators. The results could help credentialing institutions assist their pre-service teachers with the analysis of their beliefs, attitudes, and actions (Holland, 2012) to understand their behaviors and to more effectively develop and integrate their lives, academic content area, classroom procedures, and discipline practices.

The results could benefit administrators at Christian K-12 schools by using the assessment to develop on-the-job professional development opportunities for in-service education (Schultz, 2010). Using the low areas of the *3DWS*, professional development could focus on developing the educators' Christian worldview based on their area of weakness identified by comparing the level of the various dimension mean scores. Also, it could help

Christian K-12 administrators develop interview questions to assist them with evaluating a candidate's Christian worldview during the interview process.

Research Questions

This study focused on exploring the Christian worldview of K-12 Christian educators on three dimensions: propositions (beliefs), behaviors (practices inside and outside the classroom), and heart-orientations (transformational spiritual faith). This was done to determine if Christian educators with teaching certification degrees from Christian institutions have a Christian worldview that is significantly different when compared to Christian educators with teaching certification from public institutions or other teacher credentialing methods. Two essential questions guided this research.

RQ1: Will there be a relationship between the composite mean scores of K-12 Christian educators on the *3DWS* and their composite mean scores on the *WMPS*?

RQ2: Will there be will be differences in the mean scores of K-12 Christian educators on the *3DWS* for a secular credentialing institution, a Christian credentialing institution, or no teaching credential?

Definitions

1. *Association of Classical and Christian Schools – (ACCS)* The Association of Classical and Christian Schools identifies its mission as “promoting, establishing, and equipping schools committed to a classical approach to education in the light of a Christian worldview grounded in the Old and New Testament Scriptures” (Schultz & Swezey, 2013, p. 228).

2. *Association of Christian Schools International – (ACSI)* The Association of Christian Schools International is a worldwide organization of Christian schools from preschool through post-secondary school. It accredits preschools through high schools. It provides leadership and

instructional materials to schools to prepare students academically and to inspire them to become devoted to God by salvation through Jesus Christ (Clark, 2015).

3. *Blended Homeschool/Class Day Program* - A blended homeschool/class day program offers students and families the flexibility of 1-3 days per week in a traditional classroom setting as well as the opportunity to learn at home. It includes a combination of face-to-face, online teaching, and home-based learning opportunities (Kintu, Zhu, & Kagambe, 2017; Valencia, 2015).

4. *Christian Education* - Christian education offers a “truly Christ-centered community of learning. The stakeholders in such a community learn through modeling Christlikeness, reflection, dialog, inquiry, and action” (Rauser, as cited by Van Brummelen, 2002, p. 233).

5. *Christian Worldview* - Long (2014) defines a Christian worldview as one that uses the Word of God (*The Holy Bible*) as the foundation to answer questions about reality and living. Tackett (2006) defines a Christian worldview as based on God as the Creator, man as sinful, Jesus as the Redeemer and the Word of God (*The Bible*) as infallible. In addition, Naugle (2002) and Sire (2004) developed the three-dimensional worldview of proposition, behavior, and heart-orientation.

Schultz (2010) bases the definition of a Christian worldview for her study. Sire (2015) reiterates his worldview:

A worldview is a commitment, a fundamental orientation of the heart, which can be conveyed as a story or in a set of presuppositions (assumptions which may be true partially true, or entirely false) which we hold (consciously or subconsciously, consistently or inconsistently) about the basic constitution of reality, and that provide the foundation on which we live and move and have our being. (p. 141)

This definition identifies the three dimensions: heart-orientation, proposition, and behavior in the 3WDS developed by Schultz (2010). This three-dimensional aspect of the Christian Worldview was used in this study.

6. *Heart* - Schultz (2010) identifies the heart as a person's innermost character, emotions, predispositions, intellect, and passions. According to Naugle (2002), Hebrew thought identifies the heart in this comprehensive manner. The definition of heart used for this study comes directly from Schultz' study. According to Naugle (2002) "the heart is the religious, intellectual, affective, and volitional center of a person" (p. 270). Foster (2010) calls the heart "the seat of the soul" and human beings "a mysterious unity of mind, body, and spirit" (p. 145). For the purposes of this study mind, body, and heart and mind, body, and spirit were synonymous.

8. *Secular Education* - A public school is a tuition-free institution sustained with public funds to educate all children in the local community or district (Dernlan, 2013). Van Brummelen (2002) identifies public schools as schools that "serve all sectors of society" (p. 10) using neutral accepted secular curriculum operated with local and state tax funds.

9. *Spiritual Transformation* - Spiritual transformation includes developing openness to the Spirit of God dwelling in the inner being and informing every human instinct and desire (Shimabukuro, 2008). Grauf-Grounds, Edwards, MacDonald, Mui-Teng Quek and Sellers (2009) identify spiritual transformation as awareness of personal spirituality, a purposeful reflection on morality and ethics and the intentional development of Christ's image in the individual believer's life. For Christians, this requires a change in the person's relationship to God through the influence of the Holy Spirit. To be transformed by the Spirit of the Living God demands resting in the Lord (Campbell, 2012).

10. *Worldview* - "At the core of any educational system is a worldview that influences the formation of educational paradigms" (Wilson, 1991, p. 19). A worldview incorporates a set of beliefs and ideas about the realities of life, the purpose of being, and serves as a guide for interpreting events that affect life in the world (Van Brummelen, 2002). A worldview shapes an individual's actions (Wood, 2008).

CHAPTER TWO: LITERATURE REVIEW

Overview

Chapter Two first presents an introduction to Christian schools. Then, it presents the theoretical framework of worldview and the conceptual framework of the Christian worldview. Then, it moves on to the competing worldview in education, the humanist worldview and the Christian worldview, and components for transmitting a Christian worldview. After exploring the theoretical framework and conceptual framework, this chapter discusses humanist and Christian worldview's view of education and applications in the classroom. Then, this chapter reviews research relating to teacher influence, teacher worldview, and instruments measuring Christian worldview. Finally, it offers a synthesis and summary of current research surrounding teacher credentialing.

Introduction

Christian schools offer a Christian education instead of the humanistic, secular education offered in the public school (Greene, 1998; Van Brummelen, 2002). Christian schools primarily “emphasize evangelical Christian principles in their teaching” (Burrige, 2017, p. 14) while providing a rigorous academic curriculum. Christian schools identify themselves as an alternative to secular education by placing the living Word, Jesus, and the written Word, the Bible at the core of their education. They insert these principles in their mission statements (Dockery, 2016; Schultz, 2010). These Christian schools highlight biblical principles, open classes in prayer, provide chapel services, and employ Christian teachers (Dockery, 2016; Gaebelein, 1968; Mitchell, 2010; Wilson, 2003). They educate their students in the traditional subjects of reading, writing, and math along with developing their students' Christian worldview and faith (Barrows, 2014). This is primarily the job of Christian educators (Barrows, 2014).

Christian schools trust that teachers capably develop a Christian worldview in the students without assessing the teachers' worldview, offering training on developing a Christian worldview, or training on integrating a Christian worldview across the curriculum (Burrige, 2017; Greene, 1998; Holland, 2012; Mooney, 2018; Schultz, 2003). Administrators, parents and students consider the teacher "the key source of worldview instruction and of a Christian perspective" (Guthrie 2009, p. 86). A Barna Group study (2009) found that less than twenty percent of self-proclaimed born-again Christian adults had a Christian worldview. Edlin (1999) points out that Christian school administrators and educators cannot develop a student's Christian worldview when its educators do not have a Christian worldview. A school is only as Christian as its faculty members are committed to thinking and living for Christ (Esqueda, 2014). Therefore, the purpose of this research study was to determine if Christian educators have a Christian worldview and if there is a significant difference in the Christian worldview of educators based on the credentialing institution or method.

Theoretical Framework

A general understanding of worldview is a necessary prerequisite to understanding its significance in human behavior. According to Anderson (2014), "A worldview is a network of ultimate beliefs, assumptions, values, and ideas about the universe" (p. 1). It shapes a person's understanding of his life and experiences. It also dictates how that person responds to circumstances. Van Brummelen (2002) contends that a worldview incorporates a set of beliefs and ideas about the realities of life and the purpose of being. It serves as a guide for interpreting events that affect life in the world. Van Brummelen (2002) emphasizes this definition by including how rules governing society influence the view of school and its operation. A person's worldview determines values, morals, and principles. Huxley (2012) asserts that metaphysical

beliefs determine man's ideas of right and wrong and regulate all actions. Sire (2015) defines worldview as "a commitment, a fundamental orientation of the heart... about the basic constitution of reality, and that the foundation on which we live and move and have our being" (p. 183).

Sire (2015) claims that a worldview allows people to think and act consistently. Even though people do not know or cannot articulate their worldview consciously, they have a worldview (Anderson, 2014; Barna Group, 2003; Bertrand, 2007; Colson & Pearcey, 1999; Schaeffer, 1972; Sire, 2004). People do not typically understand or evaluate their worldview, but they understand and evaluate everything else through it (Anderson, 2014; Pearcey, 2005). Whether a person is aware or unaware of his worldview, it governs his thoughts and answers to fundamental questions about reality (Anderson, 2014; Pearcey, 2005). Everyone uses his worldview to assess mundane issues as well as profound thoughts (Anderson, 2014; Wood, 2008).

A worldview answers life's vital questions. What is real? Who and what are human beings? What is the purpose of life? What are the tasks in life? How can human beings prepare to perform that task (Anderson, 2014; Myers & Noebel, 2015; Pearcey, 2015)?

The word worldview designates an inclusive ideology of the universe and man's relationship to it. The word comes from the German word *weltanschauung*, meaning a way to look at the world (Sire, 2015). A worldview includes epistemology, anthropology, theology, axiology, and metaphysics (Anderson, 2014). These categories bring depth and clarity to a discussion on a worldview.

Epistemology according to Gutek (2011) is "the theory of knowledge" (p. 37), or how people know what is true. "It will also have things to say on closely related subjects such as

truth logic, reason, experience, intuition, and revelation” (Anderson, 2014, p. 3). Heylighen (2000) claims that epistemology clarifies truth, reality, and reliability. Funk (2001) adds that epistemology includes a person’s convictions regarding the character and origin of knowledge.

Anthropology, according to Anderson (2014), is “the study of human beings” (p. 2). It examines the character and nature of human beings. It identifies a specific perspective on humanity’s fundamental character and purpose (Anderson, 2014). Funk (2001) defines anthropology as the essence and function of human beings and the individual, specifically.

Theology identifies what people know and believe about God, “the study of God” (Anderson, 2014, p. 2). Funk (2001) defines theology as a person’s belief in the existence and character of God. In the fifth century, Augustine identified theology as a logical discussion about God.

Axiology according to Gutek (2011) is “the examination of values” (p. 37). Anderson (2014) calls this ethics and defines it as goodness and morality. Heylighen (2000) identifies this category as values. Fundamentally, this category involves morality or ethics. It is the rules, which explain acceptable and non-acceptable behavior (Heylighen, 2000).

Metaphysics identifies the causes, purposes and meanings of life. Gutek (2011) defines it as “the study of ultimate reality” (p. 37). Funk (2001) describes metaphysics as the essential elements of reality. It investigates the elemental truth of “being as being as opposed to being as physical (physics) or being as mathematical (mathematics)” (Geisler, 2011, p. 16) attempting to discover what there is and what it is like (Zalta, 2012).

Conceptual Framework

This study intentionally focuses on the Christian worldview. The Christian worldview answers life’s vital questions based on the Bible. What is real? Why are human beings here?

What is the purpose of life? Shepson (2012) describes the Christian worldview as an all-encompassing view of life. A Christian worldview “frames all of life and guides and directs its goals and outcomes” (Shepson, 2012, p. S-185). The Creator God exists beyond the world, yet sustains it and acts in it (Geisler, 2011). The Christian worldview involves the whole person and the life with God, the Immanuel principle (Foster, & Helmers, 2008). It embraces a person’s beliefs, actions, and heart-orientation (Morales, 2013; Schultz, 2010; Sire 2005 & 2015).

“At the heart of our Christian faith is a story” (Westerhoff, 2000, p. 32). The Christian story includes creation, rebellion, redemption, and return. Anthony (2010) calls this the Big God Story. Peterson (2012) identifies this story as the biblical meta-narrative. It is a story to explain the truth in all that has ever existed across time and cultures. Mohler (2011) uses the term, *biblical master narrative*, to describe the history of God’s work in the world. These authors assert that the biblical story lays a firm foundation and understanding that helps develop an authentic Christian worldview.

In this grand sweeping epic, God, as the main character, created the heavens and the earth (Colossians 1:16). He created Adam and Eve to live in relationship to Him. They rebelled and went their own way. God let them go but promised to redeem all of humanity. God continued to pursue a relationship with people through Abraham and the nation of Israel. Then Israel, God’s chosen nation, rebelled against Him and He again let them go. At the proper time, God sent His Son, Jesus, to redeem the world. His Son died to save people from their rebellion. Jesus rose from the dead to announce new life for all who believe. God sent His Holy Spirit to indwell these believers. He continues to work in and through His people. All people live in some time and place in His story between creation as recorded in Genesis and culmination as recorded in Revelation.

A Christian worldview guides and directs a Christian's thoughts and actions based on biblical wisdom and knowledge (Schultz, 2010). It points man toward God and teaches man to glorify God in all of life. The various categories of worldview—epistemology, anthropology, theology, axiology, and metaphysics along with the doctrines of the faith illuminated in the Apostles Creed—arrange the presentation of the Christian worldview.

According to the Christian worldview epistemology, people know truth through God, who has revealed Himself through general revelation and special revelation. General revelation means that people see evidence of God in and through all creation. Erickson (2013) defines general revelation as: “God’s communication of Himself to all persons, at all times, and in all places” (p. 122). Erickson (2013) describes special revelation as “God’s particular communications and manifestations of himself to particular persons at particular times, communications, and manifestations that are available now only by consultation of certain sacred writings” (p. 122). In the Bible, God reveals His plan for redemption through His Son, Jesus.

Moreland (2007) states, “The Lord’s Word is not only practically useful; it is also theoretically true (John 17:17). God has revealed the truth to people. The truth is addressed to our minds and requires an intellectual grasp to understand and then apply” (p. 45). Throughout Scripture, man is encouraged to think and reason. “Come now,” records Isaiah, “and let us reason together, said the Lord: though your sins be as scarlet, they shall be white as snow” (Isaiah 1:18). The Apostle Peter urges Christians to prepare themselves to present reasonable, captivating arguments for their hope in Christ (1 Peter 3:15).

A Christian perspective of humanity entails the study of Biblical anthropology (the doctrine of man). Sire (2004) states, “Human beings were created good” (p. 37). To study man, Christians look to God as man’s Creator. “In and of ourselves we are of the dust. But God has

assigned a remarkable value and worth to us His creatures made in His image. He is the source of our life and our very being” (Sproul, 1997, p. 25). “God’s original creation was perfect until Adam and Eve chose to disobey God” (Wood, 2008, p. 34). Even after man sinned, God still loved him (John 3:16; Romans 5:8). In addition to man’s inherent value, God created man rational and relational. The Christian worldview emphasizes humans as a psychosomatic unity created in the image of God and the human person’s state of integrity of mind, body, and heart (Hollinger, 2005). “It is in the interpenetration of head, heart, and hands that we begin to discover what it means to truly be a follower of Jesus” (Hollinger, 2005, p. 190). In an integrated biblical Christian worldview, the mind, body and heart works together (Hollinger, 2005; Singleton, 2015).

Theology identifies people’s knowledge and beliefs about God. Anderson (2014) defines it as “the study of God (p. 2). Theology, according to the Christian worldview, affirms the reality of an omniscient, mighty, benevolent, just, and supernatural God. He exists in three persons: Father, Son, and Holy Spirit. From the Christian perspective, God existed before time and created all things by the word of His mouth (Psalm 33:6; Hebrews 11:14). The Christian worldview additionally declares that this almighty, intelligent God who created everything in Heaven and on the earth took on human form and died for the sins of the world (John 3:16) to establish a relationship.

Axiology or ethics is the study of good and evil, right and wrong; and how people know what is good and evil, right and wrong (Sunshine, 2009). Christian ethics cannot be divorced from Christian theology without becoming fragmented (Crenshaw, 2013). Schaeffer (1972) contends that belief in the benevolent, just God of Christianity provides a firm foundation for justice and inalienable rights. The Bible provides a framework for Christian ethics grounded

firmly in the character of God, who hates evil and loves righteousness. The Christian worldview describes God's moral character as firm, immutable. It does not change. Schaeffer (1972) explains the uniqueness of Christian ethics.

One of the distinctions of the Judeo-Christian God is that not all things are the same to Him. That at first may sound rather trivial, but in reality, it is one of the most profound things one can say about the Judeo-Christian God. He has a character and some things are opposed to His character. (p. 5)

Rather than believing in society's situational ethics and values and accepting them as valid, in the Christian worldview man has a detailed, unchanging moral code displayed through general revelation in all nature and disclosed through the special revelation of the Bible and the person of Jesus Christ (Jones, 2013).

Metaphysics identifies the causes, purposes, and meanings of life. Gutek (2011) defines it as "the study of ultimate reality" (p. 37). In a Christian worldview, ultimate reality begins with acknowledging that God created the world with the breath of His mouth (Genesis 1) and holds all creation together (Colossians 1:17). Christian metaphysics recognizes essential components of the Christian faith, as encapsulated in the Apostles' Creed (Grauf-Grounds, et al., 2009). God exists. His nature is disclosed to man in three persons: the Father, the Son, and the Holy Spirit (Matthew 28:19). He created man in His image (Genesis 1:27). God created man to know, love, serve, and glorify Him in this life and into eternity (Lim, 2018).

Although God created everything good (Genesis 1:31), man sinned and brought enmity between man and God. God mediated the problem by sending His Son to bridge the gap and forgive man's sin (John 3:16). At just the right time, Mary, a virgin conceived Jesus by the

power of the Holy Spirit (Luke 1:35). Jesus suffered, died, was buried, and rose again on the third day (I Corinthians 15: 4).

Jesus rose from the dead (John 10:17-18). The resurrection demonstrates God's acceptance of Jesus' sacrifice (Acts 17:31) and that He will give new life (eternal life) to all who believe (1 John 1:9). Man receives the gift of God's salvation through faith in God's Son, Jesus Christ (Ephesians 2:8). After Jesus's resurrection, He ascended into Heaven and is seated at the right hand of God (Mark 16:19). God will judge the living and the dead (I Peter 4:5). The purpose of life for man is to bring honor and worship to God (I Corinthians 6:20). Honoring the Lord motivates a life that pleases Him and reflects His character and values to the world (Shepson, 2012).

God, an infinite, omniscient being, dwells outside of time and space (Dernlan, 2012). He is, He was, He is to come (Revelation 1:4). A Christian worldview continues and establishes God's personal intervention in His creation. Although God exists outside of time, He intervenes in the world (Blackaby & Blackaby, 2011; Matthew 1:24). The infinite God interacts with the three-dimensional environment much like a circle or a point would intersect a sphere (Conway, 2005). "It serves as the unifying factor for everything that exists" (Esqueda, 2014, p. 93). Every relationship and opportunity comes from the Lord, each responsibility the Lord's command, and every blessing God's gift (Shepson, 2012). The Bible's account offers a firm foundation for faith and education, beginning with God as the Creator. It establishes that God's good nature permeates everything; and continues with an account of man's sin, the disintegration of creation, and God's redemption through Jesus' death on the cross. Finally, it concludes with the formation of Christ's earthly and heavenly kingdom.

The Christian worldview integrates man's mind, body, and emotions through a spiritual transformational process. It is a combination of cerebral affirmations, behavioral habits, and emotional encounters. Schultz (2010) and Sire (2004) define worldview in three dimensions. These dimensions include heart-orientation, proposition, and behavior. It is not one but all (Baniszewski, 2016). This concept of a three dimensional aspect of a Christian worldview made it necessary to examine the Christian worldview of Christian educators on these three dimensions.

In addition to the three dimensions, the Christian worldview acknowledges that God calls His people to a life with Him (Foster & Helmers, 2008). To align with the Immanuel principle and develop the students' Christian worldview, Christian education should focus on God and His creation, absolute truth, and moral purity (Greene, 1998). To provide students with a biblical worldview and transformational faith, Christian schools need to offer a Christian curriculum, philosophy of education, pedagogy, and methodology. Just adding, chapel and Bible instruction is not enough (Collier & Dowson, 2014). Christian educational philosophy should include a biblical view of children as gifts from the Lord (Psalms 127:3, New Living Translation), of the fear of the Lord as the beginning of knowledge (Proverbs 1:7), and that true wisdom comes from God (James 1:13-18). A Christian education should purposes to lead students to knowledge of their Creator (Van Brummelen, 2002), to develop a healthy fear of the LORD, and to gain understanding that they are responsible to Him. Christian education needs to focus on developing spiritual disciplines that include: Bible study; prayer, both speaking and listening; self-denial; and private and corporate worship (Foster & Helmers 2008). Christian educators need to develop the ability to incorporate Christian principles and faith into their subject area

curriculum (Collier & Dowson 2014). Christian educators need to develop an authentic connection between faith and academic subjects (Long, 2014, p. 64).

Over the years, many secular psychologists and social scientists have developed ages and stages of child development theories. Developmental milestones identify the age categories that children typically achieve particular abilities. Piaget developed a theory of the cognitive development of children. Erikson identified stages of developmental crisis in the theory of Psychosocial Stages. Freud theorized the fixation ideology in the Psychosexual Stages. Maslow, a prominent humanistic theorist developed a Hierarchy of Human Needs. Kohlberg proposed a moral development theory. Cherry (2010) presents a detailed description of each of these theories. A thorough review of each of these developmental theories is beyond the scope of this study.

While recognizing the significant role these developmental theories have had on cultivating a child-centered pedagogy, Christian educators must analyze these theories with a biblical lens (Espinoza & Johnson-Miller, 2014). Along with understanding the developmental nature of a child's physical, cognitive, and emotional growth, Christian educators need to consider the child's soul and spiritual growth (Shimabukuro, 2008). Christian educators need to guard against allowing these social science developmental theories to overshadow the biblical and theological mandate of leading students to a saving knowledge of Christ, training students to reflect the fullness of Christ, and living moment by moment with God (Espinoza & Johnson-Miller, 2014).

Using these developmental theories in conjunction with Christian principles and theology, researchers have developed various Christian pedagogies and educational philosophies. Shimabukuro (2008) presented a compilation of Church documents, theology, leadership theory,

and sociology to develop a faith-based contemporary pedagogy. Shimabukuro (2008) advocated a Christian pedagogy that included: developing the learners' creative spirit, hands-on projects, less but more in-depth content, and literature analysis. This style of teaching and learning welcomes the student at the soul level and allows them opportunities to activate the Spirit of God dwelling within them. Shimabukuro (2008) contends that education today needs to focus on the indwelling divine spirit as an essential part of the education process. Similarly, Lindeman (2016) developed a model of Christian pedagogy that included: stating goals and objectives clearly, articulating a passion for subject matter, helping students recognize their preconceptions, reconstructing these ideas using a biblical lens, and finally assessing the worldview development of the students. Lindeman suggested that this is a slow incremental process measured in bits and pieces, but necessary to develop the pursuit of a life with God.

Jacobs (2005) identified five graces that empower Christian educators to become spiritual leaders. These graces include understanding the nature of the soul, adopting a contemplative stance, exhibiting a magnanimous spirit, possessing interpersonal sensitivity, and acting with courage. With these five graces, Jacobs (2005) encourages Christian educators to look beyond developmental theories in order to maximize the faith development and spiritual growth of the students. According to Jacobs (2005), these teachers reflect on their spiritual growth and development to improve first their relationship with God. Then, they share their journey with their students to better help students integrate their mind-body-soul dimensions. According to Jacobs (2005), to implement this Christian-based pedagogy, teachers need a living and active relationship with God developed through His grace and dependent on His grace. Although these graces are a gift of God, they can be developed. Christian credentialing programs and teacher

professional development opportunities need to focus on the development of these graces in teacher candidates and teachers.

Secular Humanist Worldview Versus Christian Worldview

Not every culture or individual answers worldview questions in the same manner. Around the world and in the United States, ideologies or worldviews dramatically differ and often oppose one another. Some of the current competing worldviews are Christianity, secular humanism, cosmic humanism, Islam, Marxism- Leninism, post-modernism, and socialism. To consider each of these ideologies is beyond the scope of this research. The most prevalent conflicting educational ideology is between humanism and Christianity. Humanistic and Christian worldviews clash ideologically in every category of worldviews. There is a battle raging for the hearts, minds, and souls of people with the battlegrounds being the public squares and the classrooms (Myers & Noebel, 2016). Table 1 summarizes the conflict between these two worldviews.

Table 1

Comparison of a Christian Worldview Versus a Humanist Worldview.

Christian Worldview versus Humanist Worldview	
Christian Worldview	Humanist Worldview
God as creator (Genesis 1:1)	The world evolved (Hall, 2005)
Man in the image of God (Genesis 2:7)	Man as the highest evolved animal (Hall, 2005)
Reduced sense of self (Luke 9:24-26, Colossians 3:10)	Improved sense of self (Maslow in Cherry, 2010)
True knowledge is from God (John 14:6, 1Corinthians 3:18)	Knowledge is from human origins (Constructivist Theory)
Getting ahead is losing self (Matthew 6:19-21, John 12:24)	Getting ahead is money and power (Blackaby & Blackaby, 2011)
Narrow is the way to Heaven (Matthew 7:13, John 12:24)	Wide is the way of tolerance (Kurtz, 2015)
Serve others first (Matthew 21:16, Phil 2:3)	Serve self first (Blackaby & Blackaby, 2011)
Jesus forgives a person's sins (John 1:9, Ephesians 2:8)	Good deeds make a person good (Kurtz, 2015)
Morality comes from God (Galatians 4:7)	Morality is relative (Hall, 2005)

Theologically, humanist, as atheists, planned to replace traditional religious beliefs with the human potential to achieve moral perfection and happiness apart from God. According to Kaden (2018), America humanism began as a pragmatist philosophical program but became popular when educational philosopher, John Dewey, and biologist, Julian Huxley, wrote the *Humanist Manifesto*. The first two tenets of the *Humanist Manifesto* state, "Humanists regard the universe as self-existing and not created" and that "man is a part of nature and that he has emerged as the result of a continuous process" (Kurtz, 1973). Humanists believe that man

created the deities, and that man has outgrown theism and deism (Kurtz, 1973). According to Kurtz (2015), humanists “do not think the concept of God (or gods) is helpful any longer” (p. 29). Humanists believe either that there is no God, or he is inconsequential to life and social issues (Myers & Noebel, 2015).

Theologically, humanism and Christianity are opposites. Christian theology identifies people’s knowledge and beliefs about God. Anderson (2014) defines it as “the study of God” (p. 2). According to the Christian worldview, theology affirms the reality of an omniscient, mighty, benevolent, just, and supernatural God. God exists in three persons: Father, Son, and Holy Spirit. From the Christian perspective, God existed before time and created all things by the word of His mouth (Psalm 33:6; Hebrews 11:14). The Christian worldview, additionally, declares that this almighty, intelligent God, who created everything in Heaven and on Earth, took on human form and died for the sins of the world (John 3:16) to establish a relationship with individuals and all humankind. Christians believe that “in God, we live and move and have our being” (Acts 17:28).

In the classroom, humanism discredits any idea of the supernatural (Kurtz, 2015). It disallows the teaching of anything outside the physical realm. A Christian worldview begins with believing that God exists. Christian educators and philosophers advocate that education primarily focuses on developing a student’s knowledge of God and a relationship with Him. “It fosters the change, renewal, and reformation of persons, groups, and structures by the power of the Holy Spirit to conform to the revealed will of God as expressed in the Scriptures and preeminently in the person of Jesus Christ” (Pazmiño, 1997, p. 87). It encourages the supernatural transformation of the student (Romans 12:1-2). Table 2 presents a summary of the conflicting educational goals between Christian education and humanist education.

Table 2

Comparison of Goals between Humanist Education and Christian Education.

Goals of Humanist Education versus Goals of Christian Education	
<u>Humanist education</u>	<u>Christian Education</u>
Learn to read (CCSS: Key Ideas & Range of Reading)	Learn to read to know God and understand His word (Cohen, 1974)
Learn to count and reason	Understand and use finances and time for the glory of God, Learn to care for family
CCSS: Learn Languages	Learn to distinguish God's voice in detailed matters of the world (Anthony, 2010)
Science as matter, time, and chance (Greene, 2003)	God as Creator and Sustainer Science as order and design (Genesis 1; Colossians 1:7)
History as autonomous man's growth and achievement or an impersonal process (Beliles & McDowell, 1989)	History in light of God's supremacy, providence, and intervention (Beliles & McDowell, 1989)
Graduate and prepare citizens for society (College and Career Readiness Anchor Standards)	Lifelong faith (2 Timothy 3: 15-17)
Get into a good college (College and Career Readiness Anchor Standards)	Prepare students for citizenship in Heaven (Philippians 3:20)
Get a good job (College and Career Readiness Anchor Standards)	Understand social institutions as God's creation for order (Tackett, 2006)
Self-actualization (Maslow in Cherry, 2010)	Learn to love others and develop Christian values in service to God (Matthew 22:37-39, Mark 12:30, 31; Luke 10:27)

Humanism promotes the philosophy of naturalism. Carl Sagan, an American agnostic, humanist scientist declared in his 1980 *Cosmos*, "The Cosmos is all that is or ever was or ever

will be.” The physical world is all that can be known. Humanists use “science to understand nature and solve human problems” (Kurtz, 2015, p. 13). The scientific method is the only way of knowing.

The Christian worldview presents a grand sweeping mystical narrative. God reveals Himself in His written Word, the Bible, and in His living Word, Jesus Christ; His prophets and His creation tell His truth. In this grand sweeping epic, God as the main character created the heavens and the earth (Colossians 1:16) and all that is in it. Thomas Aquinas (1265-1274) strived to build a synthesis of divine revelation and human reason encouraging Christians to use their God-given intellect to know all about the world; to experience life, culture, and joy; and to glorify God through the knowledge of His creation. Without God, there is no real knowing.

In the classroom, humanist focus on science and factual information taught through the academic disciplines. The only way to know anything is through the study of the physical universe (Sagan, 1980). Christians focus on the knowledge of their Creator as well as an understanding that they are responsible to Him. St. Augustine, an early Christian educational theorist, emphasized Scripture in his teaching referencing a scriptural passage on almost every page in *De doctrina Christiana* (Hill, 2013). St. Augustine promoted a curriculum anchored in God, the Creator and upholder of the universe (Colossians 1:17; Hebrews 1:3). Luther believed education to be meaningless without the Scriptures and the gospel. He advised parents to not send children to schools where Scripture was not prominent (Hill, 2007; Jang, 2011). Complete knowledge begins with God (Proverbs 1:7; Proverbs 9:10).

Humanists believe that man resulted from a natural process and that natural causes explain all that exists. Therefore, the anthropology of secular humanists maintains the evolution of man (Myers & Noebel, 2016). Man has no inherent or intrinsic value (Kurtz, 2015; Kyeyune,

2012; Sire, 2015). A Christian perspective of humanity entails the study of a biblical anthropology (the doctrine of man). People are uniquely created in the image of God (Sire, 2015). In addition to man's inherent value, God created man as rational and relational. The Christian worldview emphasizes humans as a psychosomatic unity created in the image of God and the human person's state of integrity of mind, body, and heart (Hollinger, 2005). "It is in the interpenetration of head, heart, and hands that we begin to discover what it means to be a follower of Jesus truly" (Hollinger, 2005, p. 190). In an integrated Christian worldview, the mind, body, and heart work together (Hollinger, 2005; Singleton, 2015).

Humanists have strong axiology. It contains the essential elements to build an inspiring value system that includes realistic and human dimensions, but according to humanists, no universal standards of right and wrong exist or should exist (Lindsay, 2014). The Bible contains only myths and legends that may inspire moral behavior (Zielinski, 2014). Human beings make and adjust ethical standards to meet the needs of various circumstances. Man generates his morality according to the cultural norms and the societal standards of the times (Kurtz, 2015). Humanists judge the value of ethical choices by the results. Their ethics rely on science, reason, experience and societal needs (Sire, 2015).

Christian ethics studies good and evil, right and wrong. It focuses on how people identify the difference between good and evil, right and wrong (Sunshine, 2009). Christian ethics becomes fragmented when they ignore Christian theology (Crenshaw, 2013). "There is an unbreakable link between the existence of this God and any sufficient basis for law, and specifically for inalienable rights" (Schaeffer 1972, p. 8). The Bible provides a framework for Christian ethics grounded firmly in the character of God, who hates evil and loves righteousness. The Christian worldview describes God's moral character as firm, immutable. It does not

change. Schaeffer (1972) explains that not everything is the same to God. He is moral and some things oppose His moral character.

In the classroom, humanism contends that no moral absolutes exist (Kurtz, 2015). Truth and morality come from an individual's experience (Kurtz, 2015). Teaching focuses on aiding students to develop a set of values that enable the community to grow and develop. Truth is relative and not fact, changing with what is expedient and practical at the moment (Kurtz, 2015). Society cannot refer to ancient texts or the moral absolutes of the past for guidance, because these texts "were written by human beings in ancient civilizations, expressing the scientific and moral speculations of their day" (Kurtz, 2015, p. 102). Society needs to embrace diversity and "freedom of choice" (Kurtz, 2015, p. 59), which includes reproductive freedom and sexual proclivities.

Rather than believing in society's situational ethics and values and accepting them as valid, the Christian worldview gives man has a detailed, unchanging moral code displayed through a general revelation in all nature and disclosed through the special revelation of the Bible and the person of Jesus Christ (Jones, 2013). "It fosters the change, renewal, and reformation of persons, groups, and structures by the power of the Holy Spirit to conform to the revealed will of God as expressed in the Scriptures and preeminently in the person of Jesus Christ" (Pazmiño, 1997, p. 87). Christians focus on learning God's principles and adjust behavior to align with His rules and commands.

Metaphysics for the humanist asserts that nature includes all that exists and all that has existed throughout time. Sagan (1980) describes the cosmos as "all that is or ever will be" (p. 1). According to the humanist, the supernatural does not exist. Although humanism does not deny

the undiscovered, it does insist that intelligent inquiry and the scientific method provide the only intelligent and logical ways to determine reality (Kurtz, 2015).

The Christian perspective identifies metaphysics as the causes, purposes, and meanings of life. Gutek (2011) defines it as “the study of ultimate reality” (p. 37). For a Christian, ultimate reality begins with acknowledging that God created the world with the breath of His mouth (Genesis 1) and holds all creation together (Colossians 1:17). Christian metaphysics recognizes essential components of the Christian faith, as encapsulated in the Apostles’ Creed (Grauf-Grounds, et al., 2009).

For the humanist, the physical world and reason offer the foundation for education. The curriculum usually consists of literature, history, science, and mathematics. Humanism, as described by modern science (naturalism), discredits any idea of the supernatural. Although it insists that education be exclusively concerned with human welfare, it does not guarantee any intrinsic value to human beings (Kurtz, 2015; Kyeyune, 2012). The role of the teachers is limited to “carefully sequence, present, and transmit knowledge” (Van Brummelen, 2002, p. 26), yet teachers still influences the students’ beliefs and ideologies (Esqueda, 2014).

For the Christian, the supernatural and divine providence offer the foundation for education. The Bible’s account of history presents a firm foundation for faith and education, beginning with God as the Creator. Here God is preeminent and personally present with His people (Sire, 2015). It establishes that God’s good nature permeates everything and continues with an account of man’s sin, the disintegration of creation and God’s redemption through Jesus’ death on the cross. Finally, it concludes with the formation of Christ’s earthly and heavenly kingdom.

Related Literature

While theoretical and conceptual framework sets a foundation, this portion of the literature review will continue with an examination of research of the four central themes of this study. It will discuss teacher influence research, teacher worldview research, instruments measuring worldview, and teacher credentialing research. Since teachers' beliefs and values shape students' thoughts, morals, beliefs, and conduct (Yount, 2010), it is important to review the literature surrounding this influence. Since assessing the teachers' worldview is the focus of this study, it is important to review the available instruments. Since credentialing is the independent variable in this study, it is important to know its history and effectiveness.

Teachers' Influence on Students. Educators' worldviews shape how they view and conduct school (Van Brummelen, 2002). The current worldview in Western culture is secular, which makes "God and the Christian faith irrelevant" (Van Brummelen, 2002, p. 49). Educators teach content and guide students to develop reason and self-sufficiency (Van Brummelen, 2002).

According to Bouvet de Korniejczuk (1993), to educate with a Christian worldview requires the educator to work diligently, with a humble heart under submission to the Holy Spirit. The teacher seeks to find and maintain the Christian perspective that holds the curriculum together as well as giving every lesson its proper place in the framework. To meet these objectives, the Christian teacher makes critical choices that ensure student learning, meet academic objectives, and uphold time limits.

The review of these studies identified four factors regarding the educators' worldview. First, the educators' worldview influences the students' worldview. Second, Christian teachers do not appear to have a biblical theist worldview. Third, Christian educators believe they have a biblical theist worldview, but the assessment scores do not confirm the self-assessment. Fourth,

even though Christian educators want to develop the students' Christian worldview and to integrate faith into academic classes, they do not have the tools or skills to implement their desires in the classroom.

Curry (2017) studied the role of teachers' faith in their daily classroom planning and relationships with students. Curry (2017) interviewed 12 educators from Boston who teach in a Christian high school. In the research, four themes emerged. (a) Teaching is not merely a job, but a vocation. Living out the biblical story engaging in a transforming, cross-cultural mission is the core responsibility of the Christian educator. (b) Trust and freedom are two virtues that enable educators to thrive in their school context. (c) Teaching is an inherently relational endeavor. (d) Certain immeasurable traits determine educator effectiveness. Educators, who demonstrate these qualities, successfully develop students' academic achievement, social-emotional character, and Christian worldview. For these educators, teaching entails mentoring, guiding, encouraging, counseling, and shepherding students not just transferring knowledge.

Hanushek (2016) studied the effectiveness of teachers in the classroom. In this study, Hanushek found that top teachers produce significant growth in student achievement and success when compared to less effective teachers in the same school. These results occur year after year. In addition, these results follow the student into adulthood. Students from the more effective teacher's classroom pursue higher education and earn more income than the students from the less effective teacher's classroom. The effective teacher significantly influenced students' attitudes and beliefs about themselves and their ability.

Francis and Sion (2014) examined whether studying under Christian teachers during "secondary school exerted a detectable impact on students' religious, personal and social values" (p. 51). The findings of this study indicate that studying under Christian teachers during

secondary school influenced students in six areas. These students displayed higher self-esteem, less drug use, lower involvement and support for illegal behaviors, lower racist attitudes, higher conservative Christian beliefs, and conservative views on sexual morality. For example, to illustrate high conservative religious beliefs, “89% of boys believed that Jesus really rose from the dead compared with 28% in the state-maintained sector” (p. 37). To illustrate sexual morality, 64% of students believed that it is wrong to have sexual intercourse outside of marriage as opposed to 13% of students from state schools. From the study, Francis and Sion (2014) postulated that the teachers employed in the independent Christian schools significantly influenced the students' beliefs and values.

Rissler, Duncan, and Caruso (2014) studied the relative importance of religion and education on university students' views on evolution. The research team used a structural equation model, which is a form of theoretical causal modeling to assess the effect with 2,999 surveyed students. They focused on acceptance of evolution by academic achievement level, chosen college major, high school educational exposure, religion and religiosity. They administered pre- and post-course evaluations in three biology classes to test the relationships between the quality of K-12 state science standards and states' religiosity and educational attainment. They found that high school biology classes were the most significant for exposing students to the theory of evolution. They also found that the teacher's beliefs presented the most significant factor in student learning in both the students' exposure to the curriculum and their understanding of the concepts. Berkman and Plutzer (2015) similarly found that high school biology teachers play a crucial role in whether high school biology courses reinforce the scientific consensus or whether the class gives credibility to the creation perspectives.

Deckard, Henderson, and Grant (2003) conducted a research study to assess the influence of the teacher's worldview on the students' worldview development. Deckard et al. (2003) drew this sample group from students enrolled in four classes at a Mid-west bible college (one apologetics class, one creation/evolution class and two biology classes). They collected four sets of data from the four separate classes. They taught the apologetics class and the creation/evolution class from a *Young Earth Creationist (YEC)* perspective, and they taught the biology classes with a theistic evolutionist, which created a dual perspective in the class. The students took the *Creation Worldview Test (CWT)* as a pre-test and post-test to evaluate the changes in students' worldview as a result of the instructor's worldview. The data collected from the apologetics class and the creation/evolution class exhibited significant differences in the Total Scale, Evolution Scale and the Creation Scale of the *CWT*. The researchers concluded that the worldview of the teacher could and does impact the worldview of students (Deckard et al., 2003). Deckard et al. (2003) stated, "a teacher's worldview significantly impacts student worldview" (p. 98).

In a study, Henderson, Deckard, and DeWitt (2003) confirmed research that the teacher's worldview influences student worldview development. They examined the influence of a *YEC* apologetics course on creation and evolution worldview attitudes. The researchers used the *CWT* to determine the creation worldview of students taking *History of Life* at Liberty University before and after taking the course. The course was taught from a *YEC* viewpoint using *Scientific Creationism* as the textbook. They found that the apologetics course "directly influenced the worldview of the students showing a significant shift of worldview attitudes" with a chi-square value of 43.31 ($p < .000$; p.4). All mean scores moved from the moderate Christian level to a biblical theist level.

In other research, Deckard, Berndt, Filakouridis, Iverson, and De Witt (2004) compared worldview beliefs of students from public schools, private Christian schools and home schools to discover if the type of school influenced students' worldview. They found a significant difference between the students' worldview in public schools and private Christian schools. This difference led the researchers to conclude that studying under teachers who lack a Christian worldview leads Christian students to leave their faith and adopt the worldview of the public school teachers (Deckard et al., 2004).

Deckard (2002) analyzed Ray (2001) and found that the students tended to adopt the worldview of their teachers. Ray used the *PEERS* (2003) and the *CWT* (1998) surveys to measure students' worldview. A higher percentage of homeschooled and private Christian school students had a biblical theistic or moderate Christian worldview whereas a higher percentage of Christian public school students had a secular humanistic or socialistic worldview (Ray, 2001). Since the teacher's worldview significantly influences the students' worldview, Christian schools need to have an instrument that measures the teacher's Christian worldview on the three dimensions of knowledge, behavior, and action. The research indicates that the teachers' worldview significantly influences the students' worldview making it necessary for Christian schools to have an instrument to assess their teachers' Christian worldview. This proposed research study aimed to provide an instrument for use in Christian schools to assess the Christian worldview of educators.

The beliefs of teachers have significant research outside of religious education or faith-based institutions. Klehm (2014) researched the effects of teacher beliefs on the achievement of students with disabilities. Klehm (2014) found the expectations of teachers played a significant role in the students' academic achievement. More than half the teachers surveyed (53.9%)

answered that they did not believe that students with disabilities could meet proficiency requirements even when given sufficient exposure to the standards. Also, two-thirds of the teachers believed that the high-stakes assessments are too difficult for students with disabilities. These findings agree with the findings of earlier research. Rosenthal (1964) found that when teachers expect students to succeed the teachers give those students more time, more direct feedback, and more praise. They also acknowledge those students with gestures more frequently.

Teacher Worldview Research. Recent and past research has focused on the preparation of Christian educators to develop and transfer a Christian worldview to their students. Lewis (2015) conducted a single instrumental study of teachers' abilities "to facilitate Christ-centered learning in the classroom" (p. 28). Lewis (2105) asked, "Are Christian school teachers Christian?" (p. 71). In this qualitative study, 22 teachers and the principal were studied in their real-world setting, the Christian school. The research showed that most teachers have traditional Christian beliefs and behaviors based on teachers' self assessed agreement to the tenets of the Christian faith and practices of regular church attendance, Bible reading, and prayer. Nine educators participated in the interview portion of the survey. These participants revealed that they had no training in faith integration and learning, spiritual nurturing of students, a Christian perspective of classroom management, and spiritual transformational teaching. Although the teachers are required by administration and school policy to teach from a Christian worldview, some expressed confusion about how to teach from a Christian worldview. Three educators very effectively incorporated the Christian worldview in their lesson plans and lesson presentations. The others six educators had relatively little connection reflecting a Christian worldview in their lesson plans or lesson presentations.

Crenshaw (2013) used a qualitative, multi-subject narrative case study to analyze six case studies. To study the participants, data were collected from university profiles, course syllabi, course descriptions, course designs, surveys, and participant interviews. All six participants indicated their desire to integrate a Christian worldview in their courses but struggled to apply it in their classroom teaching. Three of the participants had difficulty describing integration of faith and learning. Educators felt unprepared and ill-equipped to integrate the Christian worldview in their classroom.

Moore (2014) studied teachers to identify their part in students' worldview development. This study's population came from ACSI schools in the Southeastern region of the United States. Moore found three common characteristics of teachers who intentionally influence students' spiritual transformation and Christian worldview. This research indicates that modeling Jesus, creating an accepting positive classroom climate, and practicing spiritual disciplines were the most common teacher characteristic to promote the students' spiritual formation and transformation.

Wood (2008) conducted a research study to investigate the influence of six factors on the Christian worldview of Christian school educators using The Nehemiah Institute's *PEERS* worldview assessment (2003). The study's 141 participants came from six Christian schools: three Association of Christian Schools International (ACSI) and three Association of Classical and Christian Schools (ACCS). The six factors in the study included (a) reared in a Christian home or a non-Christian home, (b) graduated from a Christian high school or a public high school, (c) earned an undergraduate or graduate degree from a Christian university or a public university, (d) worked at the elementary level or secondary level, (e) employed by a school affiliated with and accredited by ACSI or ACCS, and (f) taught in Christian schools fewer than

10 years or 10 years or more. Wood (2008) used a causal-comparative design for the study and an independent *t*-test to analyze the results.

Wood (2008) found no significant difference in five of the six factors. The study's results indicate a significant difference between teachers employed at ACSI and ACCS affiliated and accredited schools. ACCS participants scored nearly 20 points higher than ACSI participants on the *PEERS* worldview assessment. This significant difference suggests that ACCS participants demonstrate a more Christian worldview. Even though the ACCS participants scored higher on the assessment, the mean scores fell within the moderate Christian category on the *PEERS* worldview assessment (2003). The moderate Christian category means the individual believes that God created and rules, but man controls world events. God is seen as supreme in matters of religion, but unconcerned with worldly matters such as government, economics and even education (Smithwick, 2008). In this study, fifteen subjects scored in the biblical theism category, 94 scored in the moderate Christianity category, 28 scored in the secular humanism category, and four scored in the socialism category. Only 10 percent of the participants scored in the biblical theism category while 22 percent scored in the secular humanism and socialism categories.

Moore (2006) assessed the Christian worldview of Christian school educators. This study's descriptive statistics indicated that 20 percent of Christian leaders had a biblical theistic worldview, 71 percent had a moderate Christian worldview and nine percent had a secular humanist worldview on the *PEERS*. In addition, Moore (2006) found in a self-assessment that 63.6 percent of Christian leaders ranked their worldview as biblical, but only 20 percent scored in the biblical theistic category on the *PEERS*. In addition, this study examined the influential factors in the formation of the educators' worldview. Moore (2006) revealed that the number of

years attending or teaching at a Christian school had no significant difference in the Christian worldview of educators.

These quantitative research studies indicate that Christian educators have a moderate Christian worldview as determined by the *PEERS* worldview assessment. According to Smithwick (2008), developer of the *PEERS* worldview assessment, the moderate Christian category indicates an acceptance of God as the Creator and the ruler, but of man as controller of the world and determiner of world affairs. This category acknowledges God as ruler in religious matters, but not in governmental, financial, or educational issues.

Instruments Measuring Christian Worldview. Various instruments claim to measure Christian worldview. Each of the following instruments was considered for use in this study. None of these instruments assesses Christian worldview on the threefold nature of man: head, hand, and heart or the three dimensions proposition, behavior and heart-orientation. The *3DWS* measures Christian worldview on these three dimensions. According to Baniszewski (2016), the *3DWS* also contains “less cultural and political bias found in many Christian worldview instruments” (p. 69).

Bouvet de Korniejczuk (1994) created the *Self-Assessment of Integrating Faith and Learning*. It uses Likert-style questions to assess Christian educators' integration of faith in the learning environment. Bouvet de Korniejczuk (1993) organized the model into seven levels. The levels range from no integration of faith into learning to complete integration school-wide with teacher collaboration and student participation. The initial three levels indicate no deliberate implementation of integration and the last four levels indicate deliberate implementation of integration. A description of each of the levels follows: Level 0. No Knowledge, No Interest: The teacher has little or no knowledge of integration of faith and

learning (IFL) in the curriculum and is not pursuing any involvement in IFL. Level 1. Interest: Teacher has developed or is developing an understanding of IFL and believes that IFL should be incorporated in classes. Level 2. Readiness: Teacher understands how to apply at least portions of IFL. Level 3. Irregular or Superficial Use: Teacher purposely integrates faith in class and curriculum in an unintended manner with no coherent Christian worldview. Level 4. Conventional: Teacher steadily uses IFL but makes no continuous changes. Level 5. Dynamic: Teacher has short-term plans for the implementation of IFL to benefit students. Level 6: Comprehensive: Teacher regularly collaborates with colleagues to improve IFL.

In addition to the questionnaire, Bouvet de Korniejczuk used interviews and document analysis to study the teachers' experience with implementing the IFL in the classroom and curriculum. Triangulation happened when observations from one source cross-validated observations from other sources. The research findings support the idea of a stage model of implementation in which teachers find themselves in a continuum from no-interest, no-use, to dynamic collaboration. According to Bouvet de Korniejczuk' (1994) findings, 45% of the North American Seventh Day Adventist high-school teachers say they are interested in learning more about implementing spiritual concepts into the curriculum. The operational description of the process of integration developed in this research may help teachers find what they need to improve the IFL. Although other self-assessment surveys indicate reliability (Mistar, 2011), this survey has no norm referencing data available. This assessment centers on the educator's behavior regarding IFL in the classroom. It focuses solely on one dimension, unlike the *3DWS* used in this research.

Another popular assessment used by Christian groups to measure a Christian worldview is the *PEERS* Assessment. The *PEERS* Assessment systematically evaluates and scientifically

interprets the worldview on a scale ranging from -100 to +100. Higher scores indicate a higher degree of commitment to traditional biblical principles and values and low scores denote a liberal, secular humanist philosophy. This test measures worldview in five primary areas of interaction between members of any society. The areas the *PEERS* assessment measures are politics, economics, education, religion, and social issues. The test also reflects opinions regarding the amount of direct government involvement needed by citizens in their personal lives. A rating is given in each of the five subject categories as well as an overall composite score (Smithwick, 2008).

To establish the validity of the *PEERS* worldview assessment the Nehemiah Institute randomly selected hundreds of tests over three years. Validity statistically measures a test to determine if the construction of a test measures what it says it measures (Wood, 2008). Then, they divided the tests into two groups and applied an item discrimination test. One group consisted of the top 20% test results and the other the lowest 20%. If the lower 20% of participants answered a test question correctly more often than the top 20% of participants, the test question did not adequately test what it claims. During this process, only one test item failed. The Nehemiah Institute discarded this question.

In addition, the Nehemiah Institute determined the assessment's construct validity. The construct validity method identifies two groups with a highly opposing view on the subject. If the groups score as expected on the instrument an evidence of test validity is confirmed. The Nehemiah Institute chose Christian worldview scholars and Humanist/New Age advocates. Both groups took the *PEERS* assessment. The assessment's results reflect each group's preferred ideology (Wood, 2008).

The *PEERS* worldview assessment's reliability was determined using a test-retest procedure. More than 200 subjects took the *PEERS* assessment twice. Ray (1995) directed a validity and reliability study and discovered that “the evidence examined during this evaluation indicates that the validity of the instrument is more than satisfactory for most purposes, and its reliability (i.e., structural consistency) is very strong according to Cronbach’s internal consistency rating = .94” (Wood, 2008, p. 88). The *PEERS* test assesses only one dimension, the proposition dimension, and is unlike the *3DWS* proposed for use in this research study.

Deckard (1998) developed the *Creationist Worldview Test (CWT)* survey to assess the level of students' creationist worldviews. The survey contains 51 items that measure the students' worldview on a five-point Likert scale from strongly agree to strongly disagree. It evaluates participants' scores and places them in three groups: theology, science, and age (Henderson, Deckard, & DeWitt, 2003). Deckard and Sobko (1998) found that the pilot pre-test had a Cronbach's alpha of .904 and the post-test had a Cronbach's alpha of .890. Ray (1995) cited a correlation coefficient (ρ) of .798 between the *PEERS* test and the *CWT*. Although the *CWT* has respectable validity and reliability, it only measures proposition statements, unlike the *3DWS*. Schultz (2010) claims that evaluating participants using only proposition statement does not adequately or accurately measure their worldview.

The Worldview Weekend Test (Howse, 2002) tests the worldview of participants on various proposition statements in eight different categories. These categories include (a) law, (b) economics, (c) civil government, (d) religion, (e) social issues, (f) sociology, (g) education, and (h) science. This study contains 83-Likert-type items. The participants responded on a 5-point rating: (a) strongly agree, (b) tend to agree, (c) no opinion, (d) tend to disagree, and (e) strongly disagree. Similar to the *PEERS* worldview assessment's scoring, this assessment gives

participants a composite rating of "strong Christian worldview thinker [75-100%], moderate Christian worldview thinker [50-74%], secular humanist worldview thinker [25-49%], socialist worldview thinker [0-24%] or communist/Marxist/socialist/secular humanist worldview thinker [under 0%]" (p. 1). The author's purpose in designing the test was to show participants their areas of adherence to a Christian worldview and the areas that needed improvement to correspond to the Christian worldview. This test had no statistical validity or reliability data available at the time of this research study and evaluated only the proposition dimension of a Christian's worldview unlike the multi-dimensional evaluation of the *3DWS*.

The Barna Group has provided research on Christian worldview since 1991. Barna Group's research (2003) defined a Christian worldview with six components. A description of each of the components included the following items. God is the all-knowing, all-powerful Creator of the universe who still rules that universe today. When Jesus Christ was on earth, He lived a sinless life. Satan is not just a symbol of evil but is a real, living entity. A person cannot earn his or her eternal salvation by being good or doing good things for other people. Salvation is the gift of God. Every person who believes in Jesus Christ has a personal responsibility to share his or her faith in Him with other people who believe differently. The Bible is accurate in all that it teaches (pp. 22-23).

According to this definition, Barna Group (2003) identified that "about four out of ten adults and one out of three teenagers fit the definition of born-again Christian. Additionally, Barna Group's (2003) research identified that "nine percent of born-again adults have a Christian worldview" (p. 23). The Barna Group used a quantitative research study and conducted an online study of 1,296 ranging in age from 18 to 29-year-old adults who formerly attended church. The Faith That Lasts research group completed a parallel phone survey. This parallel

study helped to ensure the reliability of the online sample and produced a 95% confidence level (Kinnaman, 2011). Although this study contributes significant knowledge to Christian leaders, this validated instrument solely assesses the proposition dimension of a worldview so is dissimilar to the *3DWS* instrument used in this research.

Hall (2010) created the *Spiritual Transformation Inventory* as an online inventory. The test contains 31 Likert-style questions that analyze five areas of spiritual connectedness. The five areas include connecting to God, connecting through spiritual practices, connecting to self and others, connecting to the spiritual community, and connecting to God's Kingdom. Previous Cronbach's alpha that ranged from .78 to .92 established a high validity for this test (Feenstra & Brouwer, 2008). Norm-referenced data from 3,000 students studying at faith-based colleges and universities across the U. S. established the reliability of this test (Weider, 2013). Hall's validated instrument focuses on the heart-orientation dimension of a person's worldview but ignores the proposition and behavior aspects, so was inadequate for measuring the threefold nature of man of head, hand, and heart or three dimensions of proposition, behavior, and heart-orientation as the *3DWS* measures.

These tests or surveys focus on individual aspects of worldview. Since this study focuses on a multi-dimensional worldview, none of these studies proved adequate to assess the beliefs, behaviors, and heart attitude in the manner that the *3DWS* does. Initially, the design of this study proposed using three different instruments to assess the worldview of Christian educators on the three dimensions. The *PEERS-II Test* (2006) evaluates the proposition (belief) dimension. The *Spiritual Transformational Inventory* assesses the heart-orientations. The *Self-Assessment of Integrating Faith and Learning* assesses the behavior integration of belief in the classroom. This design would have been cumbersome for the participants and costly for the researcher.

The *3DWS* provided a single instrument to assess the worldview of Christian educators on the three different dimensions. For this study, the *3DWS* developed by Schultz (2010) was used with the developer's permission and modified to fit the population of the study with the author's approval. This survey instrument assessed the participants on the three dimensions of proposition, behavior, and heart-orientation. These dimensions form the three dimensions of worldview that were shaped by Naugle (2002) and Sire (2004) and utilized by Wood (2008) and Bryant (2008).

The proposition dimension describes knowledge, according to the traditional definition that emerged from Plato's *Meno* and *Thaetetus*. This type of knowledge emphasizes the truth and the justification of what is believed. It is when a person truly knows that some facts are true. A proposition describes a fact or a state of affairs.

The behavior dimension assesses the participants' behavior adherence to their beliefs. According to Schultz (2010), it connects a person's proposition beliefs with his actions and life. It shows that an individual has "come to understand that 'To obey is better than sacrifice' (1 Samuel 15:22)" (Schultz, 2010, p. 185).

The heart-orientation aspect of the *3DWS* assesses the inner character, feelings or inclinations of the participants (Schultz, 2010). The biblical concept of the heart includes wisdom (Proverbs 2:10), emotion (Exodus 4:14; John 14:1), desire and will (1 Chronicles 29:18), spirituality (Acts 8:21) and intellect (Romans 1:21). Naugle (2002) identifies the heart biblically as "the central defining element of the human person" (p. 268). The definition of the heart used by Schultz (2010) in the *3DWS* as "the religious, intellectual, affective and volitional center of a person" (Naugle, 2002, p. 270).

The *WMPS* provided another single instrument to assess the worldview of Christians on the three different dimensions. Under the leadership of Barna, the American Culture and Faith Institute (ACFI) conducted the *WMPS* in February 2017. Barna permitted the use of the survey for this research study. The Institute conducted interviews with 1,000 adults above 18 years-old nationally, 4,500 interviews with Spiritually Active, Governance Engaged Christian Conservatives (SAGE Cons), and 500 interviews with theologically conservative Pastors of Protestant churches. The survey generated three separate scores: a Biblical Belief Score, a Biblical Behavior Score, and an Integrated Discipline Score. The survey incorporated 20 questions about beliefs and 20 questions about behavior. These 40 questions were reviewed for their relationship to biblical principles. Scoring 80% or higher on the 40 questions based on biblical content, principles, and behavior indicated that these participants had a Christian worldview and were considered 'Integrated Disciples.' The range of sampling error related to this survey that included more than 5000 people is ± 1.5 to ± 3.5 percentage points at the 95 percent confidence level.

After reviewing the instruments designed to assess a Christian worldview, the *3DWS* seemed the most appropriate instrument for this study. This instrument provided the only tool to assess the participants on the three dimensions of proposition, behavior, and heart-orientation. These dimensions formed the three dimensions of worldview shaped by Naugle (2002) and Sire (2004) and utilized by Wood (2008) and Bryant (2008) and the tripartite nature of human beings described by Hollinger (2005) and Singleton (2015). Baniszewski (2016) used the *3DWS-Form C* in a study of Christian graduate students. Although this study included more than 65% adults ranging in age from 30–49, the *3DWS* had not been used previously with an adult population of educators, so a potential problem with the *3DWS* validity in this population arises. To address

this potential problem, participants took *WMPS* at the same time as the *3DWS*. Taking the two assessments simultaneously established concurrent validity. Concurrent validity is established by correlating a previously validated instrument along with the current instrument (Warner, 2013).

Teacher Credentialing Programs. Teacher credentialing is the independent variable in this study, so it needs some review. According to the review of the literature, teacher education and credentialing is a relatively new trend (Angus, 2001; Ornstein, Levine, Gutek, & Vocke, 2016; Ravitch, 2003). According to Angus (2001), in and throughout the 19th century the local community controlled the selection of their educators. During this time, teaching was considered an interim position. Before marriage, women taught school. Before ordination or graduation, men taught school. Prospective teachers were either known in their local community as a well-educated and morally upright person, or they presented evidence of their educational qualifications and moral character to the local leaders (Ravitch, 2003).

Initially, teacher certification began out of the desire of educational leaders to have teaching established as a profession. These new leaders of the profession controlled teacher certification and developed courses and tests in pedagogy (Ravitch, 2003). They worked to develop an education profession with preparation programs and a specialized language. During this time, colleges and universities opened departments of pedagogy that later developed into educational undergraduate and graduate programs. When teacher candidates completed the teacher education program, they earned their teaching certification (Ravitch, 2003).

These teacher education and certification programs were designed to increase student learning and achievement. Ultimately, the goal of teacher credentialing or licensure was to promote student achievement and to reduce achievement gaps between various groups of

students (i.e., minority and white students, or low-income and more affluent students). Today in the United States, the debate continues to intensify regarding the effectiveness of state-issued teacher credentials on student achievement (Clotfelter, Ladd, & Vigdor, 2007). Angus (2001) suggests that the education profession's control of teacher credentialing and licensure has not improved teacher quality or success on increasing student achievement or in diminishing the achievement gap.

According to Ornstein et al. (2016), it is almost impossible to identify the adequacy and effectiveness of teacher-preparation programs because of their variability. Teaching certification requirements differ widely from state to state. This variance in licensure requirements leads to variance in teacher-preparation programs, which makes it difficult to determine the preparedness of teachers entering the field. The general education requirements for secondary certification vary from thirty to seventy-five semester credit hours. The minimum hours for professional teaching courses and practicums fluctuate as well. In addition, courses with the same name differ in content from professor to professor as well and from school to school. This variety makes it difficult to know if teacher candidates have studied the same concepts or developed the same set of skills (Ornstein et al., 2016). In addition, teacher certification programs range in size from incredibly small to extremely large, exceptionally well-funded to meager or insufficiently funded, and newly developed to a century old. Moreover, they do not have a consistent definition of a quality teacher, the product they were trying to produce.

With this in mind, many researchers have analyzed and evaluated teacher-preparation programs. One such analysis, the Education Schools Project, released the results of a five-year study on teacher-education programs. Its *Educating School Teachers* report deduced that one-quarter to one-third of teacher candidates performed exceptionally in the classroom. But that left

two-thirds to three-fourths who did not perform adequately in the classroom. The study concluded that most future teachers had ineffective curricula, mediocre standards and out of touch faculty during their preparation program. The report recommended the closing of failing schools of education, the development and expansion of quality programs, an increase in scholarships to attract the finest minds into teaching, and quality control of schools and curriculum should be strengthened (Layton, 2014).

The National Council on Teacher Quality conducted other assessments of teacher-preparation programs. The Council collected information on teacher candidate selection and graduation policies and practices, course availability and syllabi, clinical observation and student teaching arrangements, provision of mentoring, and related matters. Its 2014 report concluded that of the 1,612 programs studied only 107 received the highest category rating (Greenberg, Walsh, & Mckee, 2014).

Recent research studies on earning teaching certification demonstrate that earning a teaching credential did not ensure quality teaching or advancement in student achievement. In a study using administrative datasets, Goldhaber (2015) defined teacher quality as the ability of the teacher to develop relationships with students, connect curriculum to life, and prepare diverse and engaging lesson. These characteristics contributed most to student achievement while the teacher's level of education or certification status contributes minimally to student achievement and educational outcomes. Hanushek (2016) and Winters (2011) obtained similar results. Both studies found a high percentage of teacher effectiveness was unrelated to factors such as professional degrees, certifications, mentoring programs, professional development, and years of experience. "Many teacher characteristics commonly used to measure teacher quality have little, if any impact on student performance" (Hanushek, 2016, p. 6). This research on teacher quality

and effectiveness indicated a need to change teacher-credentialing programs to prepare teachers to effectively increase student achievement and diminish the current achievement gap (Ornstein et al., 2016).

Although research has demonstrated that teacher credentialing has not increased student achievement, Christian universities have developed secular-style teacher credentialing and credentialing programs focusing more on preparing students for careers (Wells, 2016). During professional educational programs, teacher candidates are not trained to cultivate a Christian worldview to educate students on developing a Christian worldview or to connect a Christian worldview to academic studies (Grauf-Grounds, et al., 2009). Cox & Peck (2018) reiterate, “it is relatively rare that Christian education for adults organically incorporates discipleship within academic and professional programs much less makes discipleship the guiding conceptual framework” (p. 243). Instead of developing Christian professional preparation programs that mirror the secular academic environment, Christian institutions should develop their programs to reflect the mission and witness of Christ (Wells, 2016).

Not only do Christian teacher credentialing programs overlook training teacher candidates in Christian worldview development, but they also use secular textbook materials. Course materials used at Christian universities should have distinctive characteristics that include: a Christian worldview development of Christian character and biblical ideas relating to academic discipline (Cox, et al., 2007). A review of various southwestern Christian university education course lists and syllabi reveal that even Christian education has adopted the prevailing secular theories and philosophies of the world. In a study of 121 texts, Cox, et al. (2007) found that non-Christian publishers published 48 (40%) of the texts. The texts from Christian publishers showed major deficiencies in the Christian worldview perspective. In these Christian

institutions, education seems more influenced by secular thought than the Bible (Cox, et al., 2007).

Even in classroom discussions at Christian universities, the focus is on secular content. Lewis's (2015) Christian-based classes tend to focus on public school teaching and administration with "subtle ways to" slip God in' without violating the law" (p. 27). Instead, these Christian teacher-credentialing programs should offer students opportunities to consider the application of Christian principles and values in the classroom and society. Mooney (2018) found, in a study of professional development on fostering Christian worldview that teachers do not think about their Christian worldview until they need to implement a Christian worldview throughout the curriculum as a Christian teacher. Christian teacher credentialing programs do not teach teacher candidates how to assist students with adopting and sustaining a Christian worldview (Finn, Swezey, & Warren, 2010) or how to integrate a Christian worldview into their curriculum. They do not received Christian worldview training in their credentialing program (Lewis, 2015; Crenshaw, 2013; Schultz, 1998). This is consistent with previous research.

Glanzer and Talbert (2005) explored teacher candidates' understanding of integrating worldview and faith into their teaching practice. In their study, these authors found that the teacher candidates did not think that their Christian faith or Christian worldview contributed to the development of their educational pedagogy, educational philosophy, curriculum choices or assessment practices. When asked about their faith's impact on their pedagogy, more than one-third (23) participants "either failed to respond or indicated that it would have no relationship" (Glanzer & Talbert, 2005, p. 33). When asked about their faith's influence on the choice of the curriculum "almost half (26 out of 58) saw no connection" (Glanzer & Talbert, 2005, p. 35). These participants stated that they would teach what the school system required them to teach.

In this study, the respondents never mention integrating Christian values into teaching or basing their classroom management on the Golden Rule (Matthew 7:13; Luke 6:31). Most respondents believed that “they should not espouse their particular faith or worldview” (Glanzer & Talbert, 2005, p. 33) in the classroom. These teacher candidates believed and acted on the western Christianity’s head-heart dichotomy instead of the united approach underscored in this research

Summary

To achieve the mission and goal of successfully transmitting a Christian worldview and transformational faith to students, Christian educators need to follow God’s design, plan and purpose (Wilson, 1991). Christian leaders, educators and parents should work together in harmony (Long, 2014). They also need to recognize that there is a fundamental difference in the philosophy and ideology taught in the public school setting and a Christian school setting. Secular educational philosophy contends that there is no God or absolute truth (American Humanist Association; 2003; Kurtz, 2013; Kurtz, 2015). It encourages the testing of everything (American Humanist Association, 2003; Kurtz, 2013; Kurtz, 2015). It presents evolution as fact (Frame, 2012). Christian educational philosophy encourages students to know the person of God as the creator of the universe. It teaches Jesus and the moral absolutes of the Bible as the ultimate truth (Frame, 2012). To reverse the current loss of young adults from Christian faith and practice; Christian leaders, educators, and parents need not ignore central concepts and basic doctrines of faith to incorporate active, child-centered, multidimensional, content-driven, integrated, holistic teaching methods (Espinoza & Johnson-Miller, 2014). Christian leaders, educators, and parents should prepare students to become soldiers for Christ in the church, the marketplace, and the community. Unfortunately, current research resounds with examples of Christian teachers not possessing a foundational Christian worldview. When the research

indicates that the teacher has a solid Christian worldview, these educators communicate they feel ill-equipped and unprepared to integrate the Christian worldview in their classroom instruction and develop their students in spiritual maturity.

CHAPTER THREE: METHODS

Overview

In this chapter, the researcher explains the method of research used in this study. Chapter Three contains the two research questions and the two hypotheses, the research design, and a description of the participants, the setting, the instruments, and the procedures. Also, Chapter Three presents the data collection procedures and the analysis procedures, along with the ethical guidelines followed in this research.

Design

This research study used a combination of correlational and causal-comparative (non-experimental) methodologies. “Non-experimental research does not involve manipulation by the researcher and instead focuses on finding linkages or associations between variables” (Reio, 2016, p. 680). A Pearson Product-Moment Correlation was used to analyze hypothesis one. An ANOVA was used to analyze hypotheses two. A Pearson Product-Moment Correlation was the appropriate method to analyze hypothesis one because the mean scores on both surveys are interval scale. A causal-comparative design provided the appropriate method for this study to analyze hypotheses two because causal-comparative research attempts to explain the cause of educational differences between or among pre-existing groups of individuals (Gall, Gall, & Borg, 2010). This design compares individuals with identifiable differences as the independent variable to find if those differences produce a particular outcome on the dependent variable. This research sought to examine different teacher credentialing methods, the independent variable, to see if a cause-effect relationship existed between those differences and the participants mean scores on the *3DWS*, the dependent variable, (Simon & Goes, 2013).

This study utilized an ANOVA to examine the statistical analysis because the study

examined one independent variable, teacher credentialing method with three categories: Christian institution, secular institution, and no credential solely with one dependent variable, Christian worldview. This researcher used an ANOVA to test for statistically significant differences between mean scores on the *3DWS* on the composite mean score as well as the three dimensions of proposition, behavior, and heart-orientation of these pre-existing groups. Analysis of variance was the most appropriate statistical tool for this causal-comparative study because it had one independent variable with more than two categories and one continuous dependent variable (Gall, et al., 2010). After completing data collection, organizing the data, and exporting the data from the Survey Monkey site, the researcher used Statistical Package for the Social Sciences (SPSS) to complete the statistical and mathematical computations involved with a Pearson Product-Moment Correlation and an ANOVA to decide to reject or to fail to reject the null hypotheses.

Research Questions

RQ1: Will there be a relationship between the composite mean scores of K-12 Christian educators on the *3DWS* and their composite mean scores on the Worldview Measurement Project Survey (*WMPS*)?

RQ2: Will there be will be differences in the mean scores of K-12 Christian educators on the *3DWS* based on Christian credentialing institution, secular credentialing institution, or no teaching credential?

Null Hypotheses

H₀1. There will be no statistically significant correlation between the composite mean scores of K-12 Christian educators on the *3DWS* and their composite mean scores on the *WMPS*.

H₀2. There will be no statistically significant difference in the mean scores on the *3DWS*

of K-12 Christian educators who earned teaching certification from Christian credentialing institution and those who earned teaching certification from secular credentialing institution or those who had earned no teaching credential.

Participants and Setting

The participants for this study were drawn from a population of K-12 Christian educators across elementary, middle school, and high school grades from Association of Christian Schools International (ACSI) in California during the 2018-2019 school year. Participants for this study teach part-time or full-time at these schools. The survey was distributed to more than 2000 Christian educators teaching at ACSI affiliated schools in California.

ACSI, the largest Christian school association in America, (Broughman, Swain, & Hryczaniuk, 2011) began in 1978 from a merger of The National Christian School Education Association, the Ohio Association of Christian Schools, and the Western Association of Christian Schools. The association serves approximately 24,000 schools worldwide (ACSI, 2012a). According to Boerema (2011), ACSI schools in America enroll 1 of every 100 students in America and 11% of the total private school students.

ACSI schools have a well-defined printed philosophy statement, mission statement, faith statement, vision, core values and school-wide expected student outcomes. ACSI schools have Christ-centered governance and executive leadership. These statements are reviewed by the staff and applied throughout the school. They outline the school's Christian characteristics and communicate a clear purpose and direction for the school's effectiveness and student growth and development.

Instrumentation

The researcher used Survey Monkey® to collect data. Data were collected to determine

the participants' demographic information and Christian worldview. The participants' Christian worldview was assessed using the *3DWS Form T*. In 2010, Shultz developed this worldview analysis survey as part of the requirements to earn the Degree of Doctor of Education from Regent University. This instrument measures the level of the participants' Christian worldview on the three dimensions of proposition, behavior, and heart-orientation (Shultz, 2010).

Shultz (2010) began developing the *3DWS* in November of 2009 and completed it in February of 2010 for use with middle school students. Items for each category "were collected from existing instruments and developed by the researcher from literature over the four-month period" (Shultz, 2010, p. 89). The *3DWS* has 76 Likert-type questions aimed at measuring a person's Christian worldview on three dimensions of proposition, behavior, and heart-orientation. Likert-type response scales have reputable reliability in survey research (Creswell, 2013). This instrument has been used with junior and senior high school students, the original target population (Schultz, 2010). Morales (2013) also validated the instrument's use among Christian undergraduate students ranging in age 18 through above 50. Baniszewski (2016) used the instrument to assess the worldview of graduate students ranging in age from 20 to over 60. Validity and reliability for this survey will be presented later in this chapter. The instrument has been slightly modified for use with teaching adults. Dr. Schultz reviewed and approved the changes. Table 3 presents a summary of the changes from *3DWS* to *3DWS Form T*.

3DWS Subscales. The *3DWS* measured proposition items on the participants' level of agreement (from strongly agree to strongly disagree); behavior items on their specified frequency (from 10 hours or less per year to more than 30 minutes daily) or unspecified frequency (from very rarely to very frequently) of engagement in the activity or action; and heart-orientation by unspecified values (from very rarely to very frequently) with a few levels of agreement response (Schultz, 2010; Morales, 2013). The survey's instructions directed participants to reflect on their feelings or perceptions but not spend too much time on one statement (Schultz, 2010; Morales, 2013).

Proposition Dimension. Proposition items aimed to measure participants' comprehensive understanding of worldview addressing beliefs about history, hermeneutics, morality, and theology (Schultz, 2010; Morales, 2013). Item one, "History is a random series of events," measured history. Item 28, "The meaning of words depends on each reader's interpretation," measured hermeneutics. Item 12, "I am the one who ultimately determines what is right or wrong for me" measured morality. Item three, "Jesus Christ physically rose from the dead," measured theology (Schultz, 2013, p. 111). Participants responded using a level of agreement scale that included: strongly disagree, disagree, neutral, agree, and strongly agree. Forty-three items (57%) on the original survey targeted the proposition dimension and included 1-21, 23-28, 30-41, 43-48, and 75 (Schultz, 2013; Morales, 2017).

Behavior Dimension. Behavior items aimed to measure participants' habitual actions. Participants self-disclosed behavior characteristics by responding to specified frequency values (e.g., "less than 10 hours a year") or unspecified (e.g., "very frequently"). Item 55, "I question the goodness of God because I know that evil exists" an example of one of the behavior

questions (Schultz, 2013, p. 111). The original survey included thirteen behavior items: 29, 49-52, 61, 70-71, 73, 76, 82, 84, and 87 (Schultz & Swezey, 2013; Morales, 2013).

Heart-orientation Dimension. Spiritual maturity literature inspired the creation of the heart-orientation items to assess participants' attitudes, feelings, and preferences. Most heart-orientation items used unspecified frequency values (very rarely, rarely, occasionally, frequently, very frequently) such as item 59, "When I see inconsistencies at church between what people say and what they do, I want to stay away from church" (Schultz, 2010, p. 112). A few items used a level of agreement scale (about 10 hours or less a year, about one-two hours a month, about one hour a week, about 15-30 minutes a day, more than 30 minutes a day). On the original survey, twenty survey questions (17%) aimed to measure heart-orientation: 7, 22, 26, 36, 42, 53-60, 63, 65, 66, 68, 72, and 74 (Schultz, 2010; Morales, 2013).

The original *3DWS* developed by Schultz (2010) for doctoral research had 76 items. After consulting experts, Schultz developed the *3DWS* with 73 items eliminating three items from the original because of lack of clarity as suggested by the experts. This resulted in 40 proposition questions and kept the 13 behavior and the 20 heart-orientation questions from the original survey. This study used the *3DWS*.

So participants could not identify which items aimed to assess each dimension, Schultz (2013) "did not separate specific item types into separate parts of the instrument for the three dimensions" (p. 101). Schultz calculated each dimension of the *3DWS* on a numerical scale and scaled the scores with equal weight. For each factor, the minimum was 19, and the maximum was 96. For the composite score, a minimum of 57 was possible, and the maximum was 288. Thirty-six items (1, 4-13, 16-18, 21-24, 26, 27, 29-30, 33-37, 40, 41-42, 46, 52, 53, 55, 56-57, 62, and 63) were constructed for reverse scoring (Schultz, 2010; Morales, 2013). By including

reversed scoring (a combination of positive and negative items), the researcher hoped to encourage the participants to consider each question carefully. The reverse-scored items were meant to reduce acquiescent bias and extreme response bias (Sauro, 2011). Reversing a portion of the items in a study is often intended to reduce the effects of response styles bias (Van Sonderen, Sanderman, & Coyne, 2013). There is no evidence that reverse-scoring effectively eliminates acquiescent bias or extreme response bias (Van Sonderen, et al., 2013).

3DWS: Face and content validity. Validity statistically measures a test to determine if the test measures what it claims to measure (Wood, 2008). To establish the face validity, a panel of non-experts checked the original instrument for face validity (Schultz, 2010). Face validity uses untrained judges to ascertain the intelligibility of survey questions. “The purpose of this step was to determine the comprehensibility and clarity of items to individuals without formal training in Christian worldview in preparation for the students” (Schultz, 2010, p. 90). Morales (2013) corroborates that an evaluation by non-experts is used to establish the understandability and the precision of the questions in the survey to people without training in a Christian worldview. Non-experts evaluate the survey questions to determine if the questions look appropriate for the intended population (Litwin, 2003). This step is designed to reduce technical, specialized, and professionally explicit language.

Next, a panel of 11 worldview experts checked the study for content validity. Educational and ministerial experts (six theologians, seven educators, five ministers, and two others) made up this panel (Schultz, 2010). All of the panelists professed faith in Jesus Christ. The expert panel assessed the individual survey items for clarity and relevance on a Likert-type scale (one = very poor, five = very good) and reported that both the content and relevance of the questions were acceptable (Morales, 2013). The mean score of the expert panel on clarity and

relevance was 4.54 with an SD = .923, N = 1763 (Schultz, 2013). Finally, the original instrument was appraised by experts in the field and changed according to the recommendations of the experts.

Morales (2013) used a principal component analysis (PCA) to test the component structure and construct validity of the *3DWS* survey as well as Cronbach's alpha and the Spearman-Brown prophecy formula to measure the internal consistency and reliability of the survey. The PCA results of Morales's (2013) study indicated that the survey had good construct validity. The individual questions identified in each component (proposition, behavior, and heart-orientation) tested the respondents' worldview on the identified component.

Baniszewski (2016) built on Morales' study by using the *3DWS-Form C* with on-campus graduate students from the School of Education at Liberty University in Lynchburg, VA. Seventy-five percent of the participants in the study were between 30 and 59-years-old. This study extended the use of the *3DWS* to the adult population, which extends the validity of the *3DWS* to the population of adult educators, the target population of this research study. Baniszewski did not compile data on the participants' profession. Since participants were graduate students in the School of Education, most likely the participants were educators. But, to add validity for the *3DWS* to the population of educators, participants completed the *3DWS* concurrently with the *WMPS*. These two surveys were compared using a Pearson's product-moment correlation coefficient (r) to establish concurrent validity.

***3DWS* reliability.** The *3DWS* survey's reliability was determined on several aspects using a pilot study. Shultz (2010) reviewed the internal consistency of the instrument as a whole as well as for each subscale of proposition, behavior, and heart-orientation dimensions. The researcher chose a Cronbach's alpha reliability goal of greater than 0.70 because these levels "are

generally accepted as representing good reliability" (Litwin, 2003, p. 29). For the 73-item survey, the Cronbach's alpha value returned at .919, which exceeded the targeted level of .70 established in the research design based on Litwin (2003, p. 29).

Schultz (2010) conducted tests for internal reliability. The composite score and each subscale category exceeded the targeted value of .70. The reliability for the proposition subscale was .868. The reliability for the behavior subscale was .788. The reliability for the heart-orientation subscale was .806. All the composite scores and the three dimensions of the *3DWS* demonstrated internal statistical reliability (Schultz, 2010).

Also, Morales (2013) examined the structure, validity, and reliability of the *3DWS-Form C* for use with postsecondary Christian institutions. Morales (2013) used principal component analysis (PCA) to test the component structure and construct validity of the *3DWS* survey as well as Cronbach's alpha and the Spearman-Brown prophecy formula to evaluate the internal consistency and reliability of the survey. The PCA results indicated that the survey had good construct validity. The Cronbach's alpha composite of .785 and the Spearman-Brown coefficient of .694 both established the internal reliability of the survey.

Schultz and Swezey (2013) introduced the concept of a three-dimensional worldview in the *Journal of Research on Christian Education*, a peer-review journal. In this article, Schultz and Swezey reviewed the literature and research of several authors supporting the three dimensions (proposition, behavior, and heart-orientation) of a worldview. These authors included: Brown, 2004; Dockery & Thornbury, 2002; Naugle, 2002; Sire, 2004; Ryken, 2006; & Thayer, 2004. The importance of a three-dimensional worldview is significant. The definition and construct are appropriate to apply to any age groups that can receive instruction. Therefore, it applies to ministries that claim to cultivate a Christian worldview (Schultz & Swezey, 2013).

Since Christian schools' primary mission is to develop a Christian worldview in their students, it is imperative that these Christian schools assess their teachers' worldview using an instrument that effectively measures all three dimensions.

A few changes were made resulting in the *3DWS-Form T* to use the *3DWS* with educators rather than students. Changes made from the *3DWS* to the *3DWS-Form T* were changes in two demographic items and three behavior items (Table 3). These items were reviewed and approved by Dr. Schultz, the author of the survey.

Table 3

Changes from 3DWS to 3DWSForm T.

Topic	Item	<i>3DWS</i>	<i>3DWS Form T</i>
Demographics	A	Age	Level of Education
	C	Number of years attending Christian school	Number of years teaching in a Christian school
Behavior	25	Waiting until marriage to have sex	Waiting until marriage and/or will be faithful/am being faithful to spouse
	54	Homework	Lesson planning, meeting with parents, collaborating with colleagues
	55	Moving from home so I can take a break from church	Taking a break from church

Demographic changes include A) from age to level of education and C) from the number of years attending Christian school to the number of years teaching at Christian schools.

Behavior changes include #25 from just waiting until marriage to waiting until marriage and/or being faithful to spouse, #54 from homework to lesson planning, meeting with parents,

collaborating with colleagues and #55 from moving from home so I can take a break from church to I look forward to going to church (Table 3).

The changed survey items (numbers 25, 54 and 56) were checked for face value validity by having an expert, the original author, Dr. Schultz, read through the questionnaire. After speaking with Dr. Schultz through email correspondence, item #55 was changed to maintain its validity back to “taking a break from church.” Cronbach’s Alpha (Cronbach’s α) was used to check for internal consistency with these items. Cronbach’s alpha (or *coefficient alpha*) measures reliability or internal consistency of a psychometric instrument. Reliability tells how well a test consistently measures the variable of interest.

This research study used a quantitative survey originating from the American Culture and Faith Institute to establish concurrent validity with a different population (Christian educators). Under the leadership of Dr. G. Barna, the American Culture and Faith Institute conducted the *WMPS* in February 2017. The Institute conducted interviews with 1,000 adults 18+ nationally, 4,500 interviews with SAGE Cons (Spiritually Active, Governance Engaged Christian Conservatives), 500 interviews with theologically conservative pastors of protestant churches. This survey generated three separate scores: Biblical Belief Score, Biblical Behavior Score, and Integrated Discipline Score. The survey incorporated 20 questions about beliefs and 20 questions about behavior. A worldview is a combination of beliefs leading to behaviors and habits that are implemented into a lifestyle. The range of sampling error related to a survey of over 5000 people is ± 1.5 to ± 3.5 percentage points at the 95 percent confidence level.

Morales (2013) suggested further research studying the advantages and disadvantages of reverse scoring. This research assessed the possible impact of reverse-scored items on the total

scores as well as each subscale's score. In addition, this research explored the reverse-scored items' ability to either positively or negatively affect the validity of worldview instruments.

First, research conducted by Rodebaugh, Woods and Heimberg (2007) studied the effects of eliminating reverse-scored items on the Social Interaction Anxiety Scale (SIAS). They investigated if removing the reverse-scored items improved the performance of the scale. Their research results indicated that eliminating the reverse-scored items improved the SIAS's total performance and did not impede the SAIS's total performance (Rodebaugh et al., 2007).

Second, a study by Rodebaugh, Heimberg, Brown, Fernandez, Blanco, Schneier, and Liebowitz (2011) measured the validity of the SAIS and the Brief Fear of Negative Evaluation scale. They found and reported that reverse-scored items decreased the scale's overall validity. Also, Van Sonderen, et al., (2013) found data that the use of reverse-scored items contaminated the results. Their research suggested that respondents were inattentive to the reverse-scored items or were confused by them. Van Sonderen, et al., (2013) found that participants made fewer mistakes when working with a positively worded 10-item instrument. These researchers suggested that straightforward worded instruments are a preferable method to use in epidemiological and clinical studies (Van Sonderen, et al., 2013).

To address the difficulties with reverse-scored items, the researcher considered eliminating the reverse-scored items. Rodebaugh, et al., (2011) recommended administering the surveys with the reverse-scored items but omitting the reverse-scored items from the total score to check the effect of the reverse-scored items. Based on the findings of Rodebaugh, et al. (2007), Rodebaugh, et al., (2011) and Van Sonderen, et al., (2013), as well as Morales's suggestion for future studies for the *3DWS*, the researcher checked the effect of the reverse-scored items by collecting the data with the reverse-scored items intact. Then, the researcher

eliminated the reverse-scored items and rescored the results using only the straightforward worded questions. Finally, an evaluation using Pearson product-moment correlation (r) and Spearman correlation compared the composite mean score of only straightforward worded items and the composite mean score with the reverse-scored items (Van Sonderen, et al., 2013).

Procedures

Recruitment. A preliminary phone request had been made to each school's principal and Regional ACSI office. The principals and the ACSI regional office agreed to distribute and allow their staff to participate in the study. The Regional ACSI office contacted the school principals or head of schools. Each principal contacted the staff using school e-mail and forwarded the consent form with the survey link. Permission to survey the faculty participants was sought from each of the participating schools by e-mail. The researcher assured each principal and ACSI regional office that school names would not be used and that the participants would not be asked to identify their names or their specific teaching location.

After receiving Internal Review Board (IRB) approval, a hyperlink to the *3DWS* and the *WMPS* was embedded in the invitation to participants e-mail (Appendix B). The e-mail was sent to the principals of the various schools and ACSI regional office. The principals and ACSI regional office were asked and agreed to forward the consent request to all the faculty members teaching at the school. The invitation to participate was addressed to the principals and staff. It informed all participants about the study and assured them of the anonymity of respondents. The e-mail included details of the study, asked the participants to review the informed consent document, and instructed them to click on the hyperlink to the survey to indicate their consent to participate (Appendix B). It communicated the importance of this study and encouraged each faculty member to participate in this significant research. The e-mail included the purpose of the

study; the importance of the study to Christian education, worldview assessment and development; the response time frame, the importance of responding honestly, and a hyperlink to Survey Monkey®.

3DWS. The researcher used an online Survey Monkey® version of the *3DWS* (Part A) and the *WMPS* (Part B). The Survey Monkey® survey combined the two surveys into one document so participants would take the two surveys at the same time. The combination was to ensure that participants took the surveys concurrently for the first collection. After analyzing the results of the initial distribution, the data demonstrated that the *3DWS* and the *WMPS* correlated with a significant Pearson product-moment coefficient (r). It also demonstrated that the inclusion or exclusion of the reserve-scored items did not alter the participants' level of the Christian Worldview. Further discussion of the results will be presented in Chapter Four. As a result, the researcher chose to use the instrument that included only the straight-worded questions from the *3DWS*.

Institution Review Board. The researcher applied to Liberty Universities Institutional Review Board (IRB) and received approval for the study before beginning any testing or data collection. The researcher petitioned the IRB twice to increase the survey's population and once to revise the survey. The IRB approved both petitions.

Consent Forms. Volunteers were asked to review an informed consent agreement and to click on a hyperlink to begin the anonymous survey to indicate consent to participate in the study. (Appendix A).

Demographics. The researcher collected demographic data regarding teachers' level of education, number of years teaching, Christian faith commitment, and teacher credentialing institution or training method from the participants using six multiple-choice questions before

beginning the survey. The questions included the teachers' level of education, gender, years of teaching at a Christian school, Christian identification, teaching placement, and teacher credentialing institution or training method.

Data Analysis

As indicated previously in this chapter, this research study used a combination correlational and causal-comparative methodology. For the correlation analysis, the study used a Pearson product-moment correlation (r). For the causal-comparative analysis, the study used an ANOVA analysis. The Pearson product-moment correlation coefficient was chosen because it measures the strength of a linear relationship between two variables that is identified by r (Green & Salkind, 2014). According to Gall, et al. (2010) an ANOVA provided the most appropriate statistical tool for this causal-comparative study because there was one factor with multiple categories and one continuous dependent variable. Green and Salkind (2014) identify an ANOVA "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). This study looked at the factor of teaching credentialing separated into three categories and the participants' mean scores on the *3DWS* as the dependent variable.

The participants took the *3DWS* to identify their Christian worldview on the composite score and on the three components (proposition, behaviors, and heart-orientation). The initial release of the survey produced 32 viable surveys, not enough to determine a difference between three diverse groups. It was enough to validate the use of the *3DWS* for use with an adult population of Christian educators with a strong correlation to the *WMPS*. Also, there were

enough surveys to determine that eliminating the reverse-scored questions did not change the results of the participants' Christian worldview.

After the data were collected and organized, the data from Survey Monkey® were transferred to Statistical Package for Social Science (SPSS) version 16 to examine the five null hypotheses. To test hypothesis one, the researcher computed Pearson product-moment correlation (r) to determine if the *3DWS* statistically correlated to the *WMPS* (2017). The Pearson product-moment correlation coefficient (r) evaluates the linear relationship of quantitative variables in a sample population (Green & Salkind, 2014). Warner (2013) identifies the Pearson product-moment correlation coefficient (r) index as ranging from -1 to +1. The coefficient identifies the degree that a high score on one variable relates to a high score on another variable (Green & Salkind, 2014). Pearson's r is a unit free indicator of the strength of a linear relationship (Warner, 2013). In behavior sciences a correlation coefficient of .10 is considered a small effect size, .30 is considered a medium effect size and .50 is considered a large effect size (Green & Salkind, 2014).

Histograms were developed to determine normality. A scatter plot was developed to determine if a linear relationship existed between the composite mean scores of the *3DWS* and the *WMPS*. The scatter plots showed how much the mean score on the *3DWS* correlated to the mean scores on the *WMPS*. If a positive linear relationship existed, then concurrent validity would be demonstrated by using the previously validated instrument (Warner, 2013).

An ANOVA was conducted to analyze the last four null hypotheses. When using ANOVA, there are assumptions of certain conditions. First, it is assumed that there is an equality of population variances and that the variances of the dependent variable are the same for the populations of the three groups. Next, there is an assumption that the dependent variable has

a normal distribution for the populations of the three groups. Finally, it is assumed that the participants are a representative random sample of the three population groups and that the Christian worldview scores are independent of each other (Green & Salkind, 2013). Also, because an 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., 2010).

For this research study, an alpha level of $\alpha = .05$ was chosen to determine statistical significance. The researcher chose this level because it indicates 95% confidence level that the results of the survey were not produced due to chance. This level was sufficient in a study examining Christian worldview. Using a higher alpha level would have increased the chances of a Type II error (Gall, et al., 2010). It was determined that there was less probability of making Type I error in a study than making a Type II error with a .05 alpha level. The need for the higher confidence level to avoid a Type I error did not offset the need to avoid the Type II error and risk not rejecting the null hypothesis when it is false.

Using SPSS, the researcher conducted an ANOVA to establish if a statistically significant difference existed between the composite mean scores and subscale mean scores on the *3DWS Form T* by groups of K-12 Christian educators earning teaching certification from Christian institutions, secular institutions, or no credential. A one-way ANOVA provided a suitable statistical analysis since the purpose of the study was to determine if mean score differences exist on one continuous dependent variable among two or more independent, discrete (unrelated) groups (Green & Salkind, 2014). The participants' mean scores on the *3DWS* were the

dependent variable in this analysis, and the three credentialing categories were the independent variables.

The assumption of normality and homogeneity of variance were assessed. Normality assumes that the scores on the dependent variable are normally distributed (bell-shaped) for each group of the independent variable (Warner, 2013). Normality was assessed using the Shapiro-Wilk test of normality (Warner, 2013). Although normality is an assumption, the one-way ANOVA gives accurate estimates of statistical significance even when the data slightly violates the assumptions of normality (Warner, 2013). The homogeneity of variance supposes that the variance of the groups in the study had an equal error of variance (Shingala & Rajyaguru, 2015; Warner, 2013). The homogeneity of variance was assessed using Levene's Test for the Equality of Error Variance (Warner, 2013). If Levene's Test indicated a problem with the homogeneity of variance, a Dunnett's *C* procedure would be used as a comparison (Green & Salkind, 2014). The one-way ANOVA was two-tailed with the probability of rejecting the null hypotheses 2, 3, 4 and 5 when set at $p < 0.05$. A p -value < 0.05 ensures a 95% certainty that the difference did not occur by chance.

CHAPTER FOUR: FINDINGS

Overview

Christian schools offer a Christian education. Christian schools and Christian parents trust that teachers capably develop a Christian worldview in the students, so assessing the Christian worldview of Christian educators is important. The purpose of this research study was to assess the Christian worldview of Christian educators teaching in a Christian school environment. This research aimed to determine if K-12 Christian educators' Christian worldview differ based on credentialing institution. This study compared the results of a Christian worldview survey given to educators teaching in ACSI associated schools in California during the school year 2018-2019. Chapter Four communicates the results gathered from 125 Christian educator's responses to the modified *3DWS*. This chapter presents the results and analysis of the two research questions and the two null hypotheses.

The research question that focused and spurred this study emerged from a Sunday school study of a Christian worldview that presented the data from the Barna study indicating that only nine percent of self-identifying Christians have a Christian worldview. The other questions flowed from the need to have a tool to assess the Christian educators on the three dimensions of mind, body, and heart.

Research Questions

This study focused on exploring a Christian worldview of K-12 Christian educators' on three dimensions of propositions (beliefs), behaviors (practices inside and outside the classroom), and heart-orientations (spiritual transformational faith) to determine if Christian educators with teaching certification degrees from Christian institutions have a Christian worldview that was statistically significantly different when compared to Christian educators

with teaching certification from secular institutions or had no teaching credential. Two essential questions guided this research.

RQ1: Will there be a relationship between the composite mean scores of K-12 Christian educators on the *3DWS* and their composite mean scores on the *WMPS*?

RQ2: Will there be will be differences in the mean scores of K-12 Christian educators on the *3DWS* for a secular credentialing institution, a Christian credentialing institution, or no teaching credential?

Null Hypotheses

H₀1. There will be no statistically significant correlation between the composite mean scores of K-12 Christian educators on the *3DWS* and their composite mean scores on the *WMPS*.

H₀2. There will be no statistically significant difference in the mean scores on the *3DWS* of K-12 Christian educators who earned teaching certification from Christian credentialing institution and those who earned teaching certification from secular credentialing institution or those who had earned no teaching credential.

Correlation Descriptive Statistics

The initial release of the survey for this research study produced results from 47 participants. Fifteen of the surveys were discarded because they were incomplete. With this number of participants, it was unlikely to find a statistically significant difference between the three groups based on their credentialing institution. It was enough surveys to complete the correlation portion of this study. This section a summary of the study variables used in the correlation data analysis, as well as results of the statistical tests used to explore the first of the two research questions and the first null hypothesis. The first correlation analysis of these initial 32 surveys showed that the *3DWS* and the *WMPS* produced a statistically significant correlation

coefficient. Figure 1 shows the scatterplot for the correlation between the *3DWS* and the *WMPS*. The second correlation analysis showed that the comparison of the *3DWS* and *3DWS* without the reverse-scored items produced a statistically significant correlation coefficient (see Figure 2).

This initial sample population consisted of 32 K-12 Christian educators teaching in ACSI affiliated schools in Southern California. Table 4 shows a summary of the demographics for the 32 study participants, where 53.13% (n = 17) were females and 46.88% (n = 15) were males.

Participants' number of years teaching in a Christian environment ranged from less than one year to over 10 years, with 9.38% (n = 3) teaching in a Christian environment less than one year; 3.13% (n = 1) teaching in a Christian environment from one to three years; 9.38% (n = 3) teaching in a Christian environment from three to six years; 21.88% (n = 7) teaching in a Christian environment from six to 10 years and 56.25% (n = 18) teaching in a Christian environment over 10 years.

When participants were asked their level of education, 6.25% (n = 2) responded high school; 25.00% (n = 8) responded bachelor's degree; 43.75% (n = 14) responded master's degree; 12.50% (n = 4) responded master's degree plus 30; and 12.50% (n = 4) responded doctorate degree. When participants were asked where they earned their teaching credentials, 34.38% (n = 11) responded that they earned certification from a Christian institution, 28.13% (n = 9) responded that they received certification from a secular institution, and 37.50% (n = 12) responded that they had no credential.

Each participant was asked, "Do you considered yourself a Christian?" One hundred percent (n = 32) responded yes to this question. Furthermore, each participant was asked, "Where do you teach?" All participants (n = 32) stated that they taught in an ACSI affiliated school.

Table 4

Summary of Demographics for Initial Results

Item	<i>n</i>	<i>Percent</i>
Gender		
Male	15	46.88
Female	17	53.13
Number of Years Teaching in a Christian Environment		
Less than one year	3	9.38
From 1-3 years	1	3.13
From 3-6 years	3	9.38
From 6-10 years	7	21.88
Over 10 years	18	56.25
Level of Education		
High School	2	6.25
Bachelor's Degree	8	25.00
Master's Degree	14	43.75
Master's Degree Plus	4	12.50
30		
Doctorate Degree	4	12.50
Institution of Teaching Credentials		
Christian Institution	11	34.38
Secular Institution	9	28.13
No Credential	12	37.50
Professing Christian		
Yes	32	100.00
No	0	0.00

Note. ($N = 32$)

Correlation Results

Null Hypothesis One. A Pearson product-moment correlation coefficient (r) was used to assess the relationship between the mean scores on the *3DWS* and the *WMPS*. Normal distribution was assessed using skew and Kurtosis. The skew of $p = -.578$ and Kurtosis value of

$p = .047$ indicate that the composite mean scores on the *3DWS* were approximately normally distributed. The skew of $p = -.689$ and Kurtosis value of $p = .048$ indicate that the mean scores on the *3MPS* were normally distributed. A positive correlation was observed between the two variables, ($r = 0.680$, $n = 32$, $p = 0.01$). The correlation is significant at the 0.01 level (two-tailed).

Overall, there was a strong, positive correlation between the participants' composite mean scores on the *3DWS* and their mean scores on the *WMPS* (Green & Salkind, 2014). This correlation supports the use of the *3DWS* as a valid instrument with an adult population of Christian educators. Figure 1 shows the scatterplot summarizing the results of the correlation between the *3DWS* composite mean score and the *WMPS* composite mean score.

During the analysis two *3DWS* scores were found to be outliers (*Z-score beyond +/- 1.96*). The scores were -2.1989 and -2.51, which is consistent with the negative skew observed in the descriptive statistics. Because these were not extreme outliers and believed to be valid participant responses, they were retained.

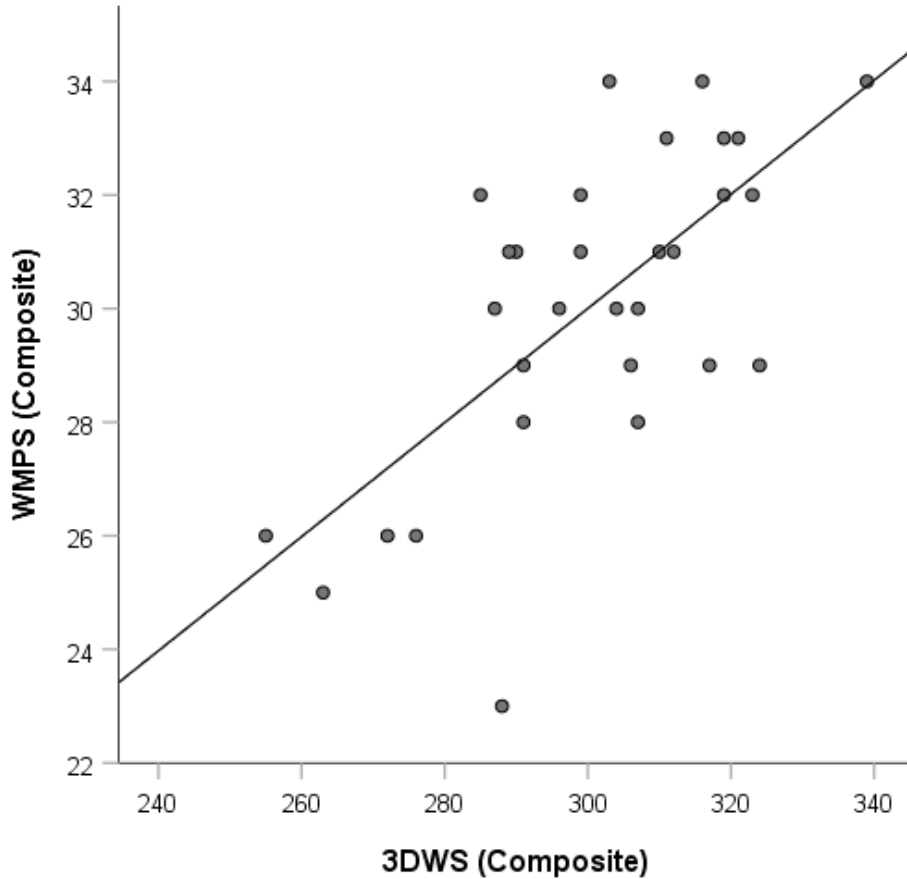


Figure 1. Simple Scatter with Fit Line of 3DWS Composite Score by WMPS Composite Scores

A Pearson product-moment correlation coefficient (r) was used to assess the relationship between the mean scores on the 3DWS and the 3DWS without the reverse-scored items. There is a strong positive correlation between the two variables, $r = 0.713$, $n = 32$, $p = 0.000$. The correlation is significant at the 0.01 level (two-tailed). Figure 2 shows the scatterplot summarizing the results of the correlation between the 3DWS without reverse-scored items and the 3DWS.

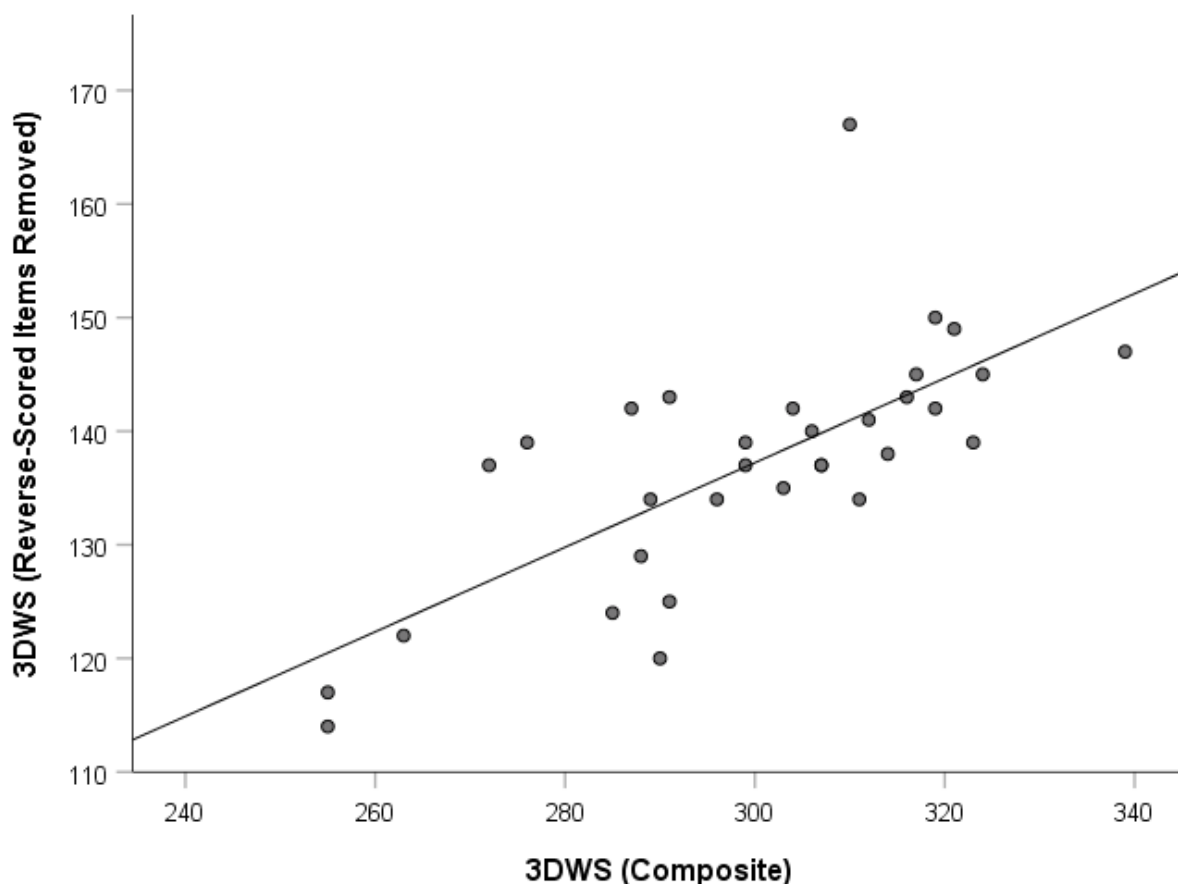


Figure 2. Simple Scatter with Fit Line of *3DWS* Composite Score by *3DWS* without Reverse-scored Items Composite Score.

Overall, there is a strong, positive correlation between the *3DWS* and the *3DWS* without the reverse-scored items (Green & Salkind, 2014). This correlation supports that the use of reverse-scored items did not necessarily enhance the results of the survey or decrease them. Using the *3DWS* with straightforward worded items is the preferable method to use (Van Sonderen, et al., 2013).

The first null hypothesis stated, “There will be no correlation between the composite mean scores of K-12 Christian educators on the *3DWS* and their mean scores on the *WMPS*.” Since the results of the Pearson product-moment correlation (r) demonstrates a statistically significant correlation between the participants’ composite mean score on the *3DWS* and their scores on the *WMPS*, the first null hypothesis is rejected.

After determining the results from these initial 32 surveys, a request for a change in protocol was made to the Liberty University IRB. The request included changing the survey's area of study from Southern California to all of California and changing the *3DWS* to eliminate the reverse-scored items. The request was granted. The new form titled *3DWS Form T* included 44 items: seven demographic items, 37 composite items, 13 proposition items, 12 behavior items, and 12 heart-orientation items. The majority of the reverse-scored items fell into the proposition category. The range of possible composite scores was 37 to 185.

A Cronbach alpha was conducted to test for the internal reliability of the *3DWS-Form T*. The *3DWS-Form T* contains 37 items that measure the Christian worldview of the participants. The Cronbach's alpha (α) score, for the *3DWS-Form T* is 0.891. This level of the Cronbach's (α) indicates a high level of internal consistency or reliability for the *3DWS-Form T*. Most Cronbach (α) levels higher than 0.7 are considered reliable (Warner, 2013).

A Cronbach alpha was conducted on each sub-category of *3DWS-Form T*. Cronbach's alpha for the 13 proposition items, the 12 behavior items, and the 12 heart-orientation items were .752, .724, and .724 respectively. This level of the Cronbach's (α) indicates an acceptable level of internal consistency or reliability for each of the sub-categories of the *3DWS-Form T*. Most Cronbach (α) levels higher than 0.7 are considered reliable. Eliminating one item, "I can know what is morally right and wrong for other people." would increase the Cronbach's (α) for the proposition dimension to .777. Eliminating one item, "Entertainment has great power to captivate the imagination, and should therefore be treated with great respect and thought." would increase the Cronbach's (α) for the heart-orientation dimension to .757. Table 5 presents summary data for the Cronbach's alpha scores for all categories of the dependent variable.

Table 5

Summary of Cronbach's Alpha Scores for all Categories of the Dependent Variable

Category	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
Christian Worldview Composite	.891	.906	36
Proposition Category	.752	.795	12
Behavior Category	.724	.734	12
Heart-Orientation Category	.724	.743	12

Note. Each of the following components has a zero variance and is removed from the scale: Jesus Christ physically rose from the dead, Jesus is important in my life today.

Descriptive Statistics

The release of the *3DWS-FormT* for this research study produced responses from 131 participants. Three of the collected surveys were eliminated. One of the surveys was incomplete. Two other surveys had the response of three (neutral or occasionally) to all the items. This numbers of participants constituted a sufficient number of surveys to determine a difference between the diverse groups based on their various credentialing institutions. This sample population consisted of 128 K-12 Christian educators teaching in ACSI affiliated schools in California during the 2018-2019 school year.

In the study, 60.16% (n = 77) were females and 39.84% (n = 51) are males. Participants' number of years teaching in a Christian environment ranged from less than one year to over 10 years, with 7.03% (n = 9) teaching in a Christian environment less than one year; 10.16% (n = 13) teaching in a Christian environment from one to three years; 13.28% (n = 17) teaching in a Christian environment from three to six years; 12.50% (n = 16) teaching in a Christian environment from six to 10 years; and 57.03% (n = 73) teaching in a Christian environment over 10 years. More than half of the survey's population (57.03%) had teaching experience in a

Christian environment for more than ten years. Table 6 shows a summary of the demographics for the 128 study participants.

Table 6

Summary of Demographics for 3DWS-Form T

Item	<i>n</i>	<i>Percent</i>
Gender		
Male	51	39.84
Female	77	60.16
Number of Years Teaching in a Christian Environment		
Less than one year	9	7.03
From 1-3 years	13	10.16
From 4-6 years	17	13.28
From 7-10 years	16	12.50
Over 10 years	73	57.03
Level of Education		
High School	8	6.25
Bachelor's Degree	54	42.19
Master's Degree	45	35.16
Master's Degree Plus 30	17	13.28
Doctorate Degree	4	3.13
Institution of Teaching Credentials		
Christian Institution	34	26.56
Secular Institution	45	35.16
No Credential	49	38.28
Professing Christian		
Yes	128	100.00
No	0	0.00

Note. (*N* = 128)

When participants were asked their level of education, 6.25% (*n* = 8) responded high school; 42.19% (*n* = 54) responded bachelor's degree; 35.16% (*n* = 45) responded master's degree; 13.28% (*n* = 17) responded master's degree plus 30; and 3.13% (*n* = 4) responded

doctorate degree. When participants were asked where they earned their teaching credentials, 26.56% (n = 34) responded that they earned certification from a Christian institution; 35.16% (n = 45) responded that they earned certification from a secular institution; and 38.28% (n = 49) responded that they had not earned certification.

When asked, “Do you consider yourself a Christian?” One hundred percent (n = 128) responded yes to this question. Also, when asked, “Where do you teach?” One hundred percent (n = 128) responded that they teach in a ACSI affiliated Christian school in California.

The mean scores on the composite *3DWS-Form T* were used to answer the second research question. All the participants in the study identified themselves as Christians. In addition, descriptive statistics were run to determine if Christian educators had a Christian worldview as measured by the *3DWS-Form T*. The overall mean score on the *3DWS-Form T* was 162.484. The minimum composite score was 105, and the maximum composite score was 182. The standard deviation for the mean scores is 12.787. The mean score of 162.484 indicates that the Christian educators surveyed in California had a Christian worldview at 87.8% as determined by the biblical position of the *3DWS-Form T*. Table 7 presents a summary of the dependent variables of this study.

Table 7

Summary of Mean Scores on Dependent Variable for Each Category

Category	Mean	SD
Christian Worldview Composite	162.484	12.787
Proposition Category	55.758	5.035
Behavior Category	50.875	4.933
Heart-Orientation Category	52.031	4.563

Note. (N = 128)

In addition to the overall Christian worldview score, the three dimensions of proposition, behavior, and heart-orientation were analyzed for this study. Descriptive statistics were

calculated for each of these three dimensions. The range of possible scores for each subtest was 12 to 65. Questions 8, 9, 11, 12, 14, 19-24, 28 and 33 from the *3DWS-Form T* were selected for analysis to calculate the proposition dimension score. The mean score for the proposition category was 55.758 (SD = 5.035). Questions 16, 17, 25-27, 30, 32, 36, 39, 40, 42, and 44 from the *3DWS Form T* were selected for analysis to calculate the behavior dimension score. The mean score for the behavior category was 50.875 (SD = 4.933). Questions 10, 13, 15, 18, 29, 31, 34, 35, 37, 38, 41 and 43 from the *3DWS-Form T* were selected for analysis to calculate the heart dimension score. The mean score for the heart category was 52.031 (SD = 4.563).

A test for normality was run on the composite scores to choose the proper statistical test. A Shapiro-Wilk test for normality was performed on the data from the participants' composite means scores. The results were $p < .001$. Since the $p < .001$, which is less than the significance level of 0.05, the decision is to reject the null hypothesis that the population is normally distributed.

Normality was also tested for each category. A Shapiro-Wilk test for normality was performed on the data from the participants' proposition, behavior, and heart-orientation mean scores. The results for all sub-categories were less than .05. The p value for proposition, behavior, and heart-orientation were $< .001$, $< .002$, and $< .001$ respectively. Since the $p < .05$ the observed distribution for all sub-categories, the decision was to reject the null for all categories of the hypothesis. Table 8 presents a summary of the Shapiro-Wilk Test for Normality.

Table 8

A Summary of Shapiro-Wilk Test for Normality

	<i>Statistic</i>	<i>Shapiro-Wilk df</i>	<i>Sig.</i>
Composite	.937	128	.000
Proposition	.660	128	.000
Behavior	.965	128	.002
Heart	.953	128	.000

Note. Lilliefors Significance Correction

Since the null hypothesis was rejected for normality, a Welch test and a Brown-Forsythe test were run for each category. The significance level changed slightly. The Welch test yielded a $p = .825$ and the Brown-Forsythe yielded a $p = .849$ for the composite scores. The Welch test yielded a $p = .720$ and the Brown-Forsythe yielded a $p = .691$ for the proposition scores. The Welch test yielded a $p = .428$ and the Brown-Forsythe yielded a $p = .417$ for the behavior scores. The Welch test yielded a $p = .973$ and the Brown-Forsythe yielded a $p = .973$ for the heart-orientation scores. None of these values demonstrated a significant difference in the scores of the participants on any of the categories.

A Levene test was run on the participants' composite mean score as well as each categories mean score. The Levene test showed that the variance for the composite mean scores was equal $F(2, 125) = .852, p = 0.429$. A Levene test was run on the participants' proposition mean scores. The Levene test showed that the variance for the proposition mean scores was equal $F(2, 125) = .465, p = 0.625$. A Levene test was run on the participants' behavior mean scores. The Levene test showed that the variance for the behavior mean scores was equal $F(2, 125) = .556, p = 0.575$. A Levene test was run on the participants' heart-orientation mean scores. The Levene test showed that the variance for the heart-orientation mean scores is equal $F(2, 125)$

= .5164, $p = 0.849$. Table 9 presents a summary of the Levene's Test of homogeneity of variance.

Table 9

A Summary of Test of Homogeneity of Variance

		<i>Levene</i>			
		<i>Statistic</i>	df1	df2	Sig.
Composite	Based on Mean	.852	2	125	.429
	Based on Median	.770	2	125	.465
	Based on Median	.770	2	117.475	.465
	With adjusted df				
Proposition	Based on	.819	2	125	.443
	trimmed mean				
	Based on Mean	.465	2	125	.629
	Based on Median	.271	2	125	.763
Behavior	Based on Median	.271	2	69.116	.763
	with adjusted df				
	Based on	.287	2	125	.751
	trimmed mean				
Heart	Based on Mean	.556	2	125	.575
	Based on Median	.497	2	125	.610
	Based on Median	.497	2	124.573	.610
	with adjusted df				
Heart	Based on	.498	2	125	.609
	trimmed mean				
	Based on Mean	.164	2	125	.849
	Based on Median	.073	2	125	.930
Heart	Based on Median	.073	2	122.807	.930
	with adjusted df				
	Based on	.122	2	125	.885
	trimmed mean				

The independent variable in this study was the Christian teachers' credentialing institution or method. Originally, the three groups considered were: Christian institution, secular institution, and alternative credentialing. Only four respondents said they earned certification from an alternative method. Since these programs (Teach for America, New Vision for Public Schools, Peace Corp Fellowship Program and Internships) are government programs, the

alternative method was combined with secular institutions. This change made it necessary to reconstruct the last two null hypotheses to eliminate the alternative method. Therefore, the three groups for certification changed to: Christian institution (n = 34), secular institution (n = 45), and no credential (n = 49). Regrouping participants established the independent variable according to their responses to "Where did you earn your teaching certification?"

ANOVA Results

Null Hypothesis Two. Research question two asked, "Do the mean scores of K-12 Christian educators on the *3DWS-Form T* differ based on Christian credentialing institution, secular credentialing institution, or no credential?" To assess this question, an ANOVA was conducted to analyze the Christian worldview of Christian educators on the composite mean scores, and the three dimensions mean scores between the three groups (Christian institution, secular institution, and no credential). There was no statistically significant difference in Christian worldview on the mean scores between the three groups $F(2, 125) = .160, p = .852$. These results showed no significant difference in the average composite mean score of participants who earned certification at a Christian institution ($M = 163.4412, SD = 11.1686$), secular institution ($Mean = 162.489, SD = 14.500$) or had no credential ($M = 161.816, SD = 12.370$). Table 10 presents an ANOVA summary of the data.

Table 10

ANOVA Comparing Three Dimensional Worldview Survey Scores by Credentialing Method

Christian <i>M(SD)</i>	Secular <i>M(SD)</i>	No Cred. <i>M(SD)</i>		<i>Sum of Squares</i>	<i>df</i>	<i>Mean Square</i>	<i>F</i>	<i>p</i>
163.4(11.2)	162.5(14.5)	161.8(12.4)	Between	52.995	2	26.498	.160	.852
			Within	20712.974	125	165.704		
			Total	20765.969	127			

The results for each category will be presented separately.

Proposition Category. Similar results were found for the mean scores from the three dimensions. Results for the ANOVA run on the proposition category mean scores show no statistically significant difference in Christian worldview between the three groups $F(2, 125) = .354, p = .703$. These results suggest that the participants' credential institution did not have an effect on the proposition category of their Christian worldview. These results showed no significant difference in the average proposition mean score of participants who earned certification at Christian institutions ($M = 56.235, SD = 3.517$), secular institutions ($M = 55.289, SD = 6.874$), or had no credential ($M = 55.857, SD = 3.857$). Table 11 presents a summary of the ANOVA analysis for the proposition component of the independent variable.

Table 11

An ANOVA Summary for Proposition

Source	<i>Sum of Squares</i>	<i>df</i>	<i>Mean Square</i>	<i>F</i>	<i>p</i>
Dependent Variable: Proposition					
Between	18.130	2	9.065	.354	.703
Within	3201.362	125	25.611		
Totals	3219.492	127			

Note. ($N = 128$)

Behavior Category. Results of the ANOVA run on the behavior category mean scores show no statistically significant difference in Christian worldview between the three groups $F(2, 125) = .866, p = .423$. These results suggest that the participants' credential institution did not have an effect on the behavior category of their Christian worldview. These results showed no significant difference in the average behavior mean score of participants who earned certification at Christian institutions ($M = 51.500, SD = 4.660$), secular institutions ($M = 51.178, SD = 4.97397$) or had no credential ($Mean = 50.163, SD = 5.088$). Table 12 presents a summary of the ANOVA analysis for the behavior component of the independent variable.

Table 12

An ANOVA Summary for Behavior

Source	<i>Sum of Squares</i>	<i>df</i>	<i>Mean Square</i>	<i>F</i>	<i>p</i>
Dependent Variable: Behavior					
Between	42.228	2	21.114	.866	.423
Within	3047.772	125	24.382		
Total	3090.000	127			

Note. ($N = 128$)

Heart-Orientation Category. Results of the ANOVA that were run on the heart-orientation category mean scores showed no statistically significant difference in Christian worldview between the three groups $F(2, 125) = .027, p = .973$. These results suggest that the participants credential institution did not have an effect on the heart-orientation category of their Christian worldview. These results showed no significant difference in the average heart-orientation mean score of participants who earned certification at Christian institutions ($M = 52.177, SD = 4.373$), secular institutions ($M = 51.933, SD = 4.812$) or had no credential ($M = 52.020, SD = 4.548$). Table 13 presents a summary of the ANOVA analysis for the heart-orientation component of the independent variable.

Table 13

An ANOVA Summary for Heart-Orientation

Source	<i>Sum of Squares</i>	<i>df</i>	<i>Mean Square</i>	<i>F</i>	<i>p</i>
Dependent Variable: Heart					
Between	1.154	2	.577	.027	.973
Within	2642.721	125	21.142		
Totals	2643.875	127			

Note. ($N = 128$)

These results indicate that H_02 which states, “There will be no statistically significant

difference in the mean scores on the *3DWS* of K-12 Christian educators who earned teaching certification from Christian credentialing institutions and those who earned teaching certification from secular credentialing institution or those who had earned no teaching credential” fails to be rejected.

This study had two purposes. The first purpose of this study was to collect data on a broader base than has been previously studied to evaluate the Christian worldview of Christian educators teaching in a Christian environment and to assess if Christian teacher credentialing programs led to a higher formation of Christian worldview among Christian educators teaching in a Christian environment. The study’s results demonstrated no significant difference existed between the three groups on the composite scores or any of the three dimensions.

A second purpose arose while choosing an instrument for the study. Prior to this study, the *3DWS* had been used in studies using students as participants. This study purposed to validate the *3DWS* with an adult population of Christian educators as well as determine if including reverse-scored questions improved the quality of the results. The results demonstrate that the *3DWS-Form T* is valid for use with an adult population of Christian educators and that the inclusion of reverse-scored items did not improve the quality of the results.

CHAPTER FIVE: CONCLUSION

Overview

Christian schools identify developing a Christian worldview in students is an important component of the school's mission. Many influences affect student achievement including personal skill level, family, neighborhood, socio-economic status, school programs, building facilities, teacher expertise, and leadership. The teacher's worldview is one of those major contributing factors. Christian teachers influence the development of students' worldview and spiritual development (Esqueda, 2014; Moore, 2014). Oko (2014) states that a teacher impacts student performance, beliefs, and worldview development two to three times more than any other factor. Duffy et al., (2016) support Oko's claim by asserting that teacher beliefs intersect in meaningful ways with student beliefs. In addition, Fyock (2008) found "that the worldview of the Christian school teacher affects the worldview of students" (pp. iii-iv). "Teachers aid in faith development of children by constructing a relationship that is formed, maintained, invested, and committed to nurturing the child" (Moore, 2014, p. 257). This is not new ideology; Lovell (1899) claimed that the teacher has the power to develop the student's minds, ideals, morals, and values.

A reasonable expectation of educators at K-12 Christian schools is that they possess a firmly established Christian worldview. Despite this reasonable expectation and research indicating the significant influence of the teacher, limited scholarly literature assessing the Christian worldview of Christian educators exists. Although it is reasonable to expect that Christian educators possess a firmly established Christian worldview; it has not been determined if Christian educators, who earn teaching credentials at Christian institutions, have a developed Christian worldview based on three dimensions that is significantly different when compared to

Christian educators, who earn teaching credentials from secular institutions or had no certification. The lack of empirical research on the Christian worldview of Christian educators makes it difficult to know the extent of Christian worldview of Christian educators (Baniszewski, 2016).

The purpose of this combined correlation and causal-comparative study was to collect data on a broader base than had been previously studied. It purposed to evaluate the Christian worldview of Christian educators teaching in a Christian environment and to assess the effect of Christian teacher credentialing programs on the formation Christian worldview of Christian educators teaching in a Christian environment. This study investigated the educators' Christian worldview based on propositions (beliefs), behaviors (practices inside and outside the classroom), and heart-orientations (transformational spiritual faith). This study sought to determine if Christian educators who earned teaching certification from Christian institutions had a Christian worldview that was significantly higher when compared to Christian educators who had earned teaching certification from secular institutions or had not earned any teaching certification. The sample was 2000 Christian educators teaching at ACSI affiliated schools in California during the 2018-2019 school year. This chapter reviews the findings of the study, discusses the results, presents conclusions, reviews the implications and limitation, and offers recommendations for future research studies.

The second purpose arose while choosing an instrument for the study. When evaluating instruments for use with this study, the researcher could not find an instrument that assessed worldview view on matters of belief, behavior, and emotion. Initially, the plan was to use three separate instruments. This plan seemed burdensome for participants and expensive for the researcher. The researcher found the *3DWS*, one instrument that assesses worldview on the three

dimensions. Prior to this study, the *3DWS* had been used in studies with students as participants. This study purposed to validate the *3DWS* with an adult population of Christian educators. In addition, it purposed to determine if including reverse-scored questions improves or hinders the quality of the results. The results demonstrated that the *3DWS-Form T* is valid for use with an adult population of Christian educators. The results also indicated that the inclusion of reverse-scored items did not improve or hinder the quality of the results. The Cronbach alpha level of .891 demonstrates the reliability of the *3DWS-Form T*.

The design for this quantitative study was a combined correlation and causal-comparative research. It used an ANOVA analysis to determine if Christian educators who earned teaching certification from Christian institutions had a Christian worldview that was significantly different when compared to Christian educators who had earned teaching certification from secular institutions or had not earned any teaching certification. The study examined one independent variable, teacher credentialing with three categories: Christian institution, secular institution, and no credentialing, and one dependent variable: Christian worldview with three dimensions: proposition, behavior, and heart-orientation.

This study used a correlation design to evaluate the validity of the *3DWS* for use with an adult population and the effect of the reverse-scored items. It conducted a Spearman's Rho and Pearson product-moment coefficient (r) to determine if a correlation existed between the participants' composite mean score on the *3DWS* and the *WMPS*. It also used Spearman's Rho and Pearson product-moment coefficient (r) to determine if a correlation existed between the participants' composite mean score on the *3DWS* and their mean scores without the reverse-scored items. A demographic and Christian worldview survey was given to over 2000 Christian educators in California. A total of 131 responses were gathered during the school year 2018-

2019 from September through February. The *3DWS-Form T* was anonymous and administered through Survey Monkey®. Only 128 surveys were valid for analysis of the two null hypotheses that directed the focus of this study.

H₀1. There will be no statistically significant correlation between the composite mean scores of K-12 Christian educators on the *3DWS* and their composite mean scores on the *WMPS*.

H₀2. There will be no statistically significant difference in the mean scores on the *3DWS* of K-12 Christian educators who earned teaching certification from Christian credentialing institution, secular credentialing institution, or had no teaching credential.

The correlation data analysis conducted examined the strength and direction of the relationship between participants' composite mean scores on the *3DWS* and *WMPS*. The scores were gathered using Survey Monkey® with a combined *3DWS* and the *WMPS* developed by Barna (2017). The descriptive statistics were used to identify the degree to which the educators possessed a Christian worldview. The demographic survey items gave the information necessary to determine the three groups and to conduct the analysis of the data.

Results of the data analysis in this study indicated to reject the first null hypothesis but not the second null hypotheses. The analysis done using the Spearman rho and the Pearson product-moment correlation coefficient (r) indicated a strong positive correlation between the participants' composite mean score on the *3DWS* and the *WMPS*. The analyses completed using an ANOVA on the *3DWS-Form T* indicated no statistically significant difference on the mean scores on the composite scores or any of the three dimension scores among or between the three groups of the independent variable.

The descriptive statistics derived from the participants' mean scores on the composite *3DWS* were used to answer the first research question. In addition, descriptive statistics were run

to determine if Christian educators have a Christian worldview as measured by the *3DWS*. The overall mean score on the *3DWS* was 162.484. The minimum composite score was 105 and the maximum composite score was 182. The standard deviation for the mean scores was 12.787. The mean score of 162.484 suggests that the ACSI Christian educators surveyed in California during the 2018-2019 school year demonstrated a Christian worldview at 87.8% as determined by the *3DWS*. The educators, who took the *WMPS*, had an overall mean score of 30.067 and an 86% as identified by the Survey Monkey® data results. The minimum score was 23.00 and the maximum score was 34.00. Barna (2017) conducted a survey through ACFI of Christian leaders and protestant pastors using the *WMPS*. The results of this survey indicated that 88% of pastors qualified as Integrated Disciples. The worldview of Christian educators teaching in ACSI affiliated schools in California, as measured by the *WMPS*, appears to demonstrate that these Christian educators possess a Christian worldview similar to other Christian leaders and pastors.

These results compare to the findings of Lewis (2015) and Mooney (2018). Lewis (2015) found that Christian educators self identify as born-again Christians by acknowledging agreement to the tenets of the Apostles' Creed. Mooney (2018) surveyed 12 Christian educators. Each one agreed to the components of being a born-again Christian as identified by Barna (2007).

These results demonstrated a much higher level of Christian educators' Christian worldview than Wood (2008) and Moore (2006). Wood (2008) found 67% of educators regardless of training institution scored in the moderate Christianity level according to the *PEERS* test. Moore (2006) found 71% of Christian educators surveyed scored in the moderate Christianity level and only 20 percent of educators scored in the biblical theistic category according to the *PEERS* test. These conflicting results could have resulted from the use of the

two different instruments. Wood 2008 and Moore (2006) both used the *PEERS* instrument. The *PEERS* instrument assesses the participants' worldview on factors relating to politics, economics, education, religion, and social issues. Bryant (2008) points out that the *PEERS* instrument measures conservative political ideology and free market economic issues. Neither a conservative political ideology nor free market economic principles are assessed using the *3DWS*.

Discussion

Null Hypothesis One. The results of this study added to the educational literature by using Schultz's *3DWS* to assess the Christian worldview of K-12 educators working in Christian schools. The concurrent validation extended the use of the *3DWS* instrument to the adult population of Christian educators. Prior to this study, Morales (2013) used principal components analysis to validate the *3DWS* for use with a population of college undergraduate students and developed the *3DWS-Form C*. Baniszewski (2016) also extended the *3DWS-Form C* for use with graduate students. Validating the *3DWS* and the *3DWS-Form T* has empirical and practical significance for the Christian educational community.

It gives Christian credentialing institutions and Christian school administrators two valid and reliable empirical instruments to measure the Christian worldview of pre-service teachers and Christian educators on their beliefs, behaviors, and heart-orientation. Empirically, *3DWS* and *3DWS-Form T* provide educators and administrators with two valid instruments to assess the Christian worldview of staff and teacher candidates without assessing conservative political ideology and free market economic issues (Bryant, 2008). Since the investigation of the *3DWS* without the reverse-scored items produced statistically significant results, practically, the *3DWS-Form T* can be completed in less than 10 minutes. This instrument could be administered to

assess the candidates worldview in a similar fashion to math and writing ability assessment typically used during the interview process. The following part of the discussion presents further significance of this study.

When Christian credentialing institution personnel observe results of the *3DWS* or *3DWS-Form T* scores from Christian pre-service teachers, they could design curriculum materials and instructional content to address the low areas of Christian worldview of pre-service teachers. The results could help credentialing institutions assist their pre-service teachers to analyze their beliefs, attitudes, and actions (Holland, 2012); to develop an understanding of their behaviors; and more effectively to develop and to integrate their lives, content area, classroom procedures, and disciplinary practices with a Christian worldview.

Course developers, textbook authors, and publishers could more directly align educational content and Christian worldview formation objectives to develop students' Christian worldview and lifelong spiritual growth more effectively. This alignment could allow students the opportunity to encounter the living God personally. This textbook support could alleviate the problem with Christian school textbooks identified by Cox, et al., (2007), who found that even textbooks from Christian publishers contain major deficits in the Christian worldview perspective.

In addition, when Christian school administrators review the results of the *3DWS* or the *3DWS-Form T* scores from Christian teachers, they could develop on-the-job professional development opportunities for in-service educational programs (Schultz, 2010). Using the low scored areas of the *3DWS* or *3DWS-Form T* administrators could design professional development to focus on developing the educators' Christian worldview based on their area of weakness. As Mooney (2018) suggests, there is a need to emphasize professional development

opportunities that teach the Christian worldview and faith and learning integration throughout the curriculum. Also, it could help Christian K-12 administrators develop interview questions to assist them with evaluating a candidate's Christian worldview during the interview process.

Furthermore, when Christian teachers review the results of the *3DWS* or the *3DWS-Form T* scores, they could develop personal goals and objects to develop their individual Christian worldview (Mooney, 2018). This endeavor would help the teacher establish specific goals and objectives to identify what learning is needed to meet individual spiritual development goals (Mooney, 2018).

Null Hypotheses Two. The results for null hypotheses two demonstrated that there is no statistically significant difference in the Christian worldview of educators who earned their certification at Christian institutions, secular institutions or had no certification.

These results reflect the findings of Wood (2008) who found no statistically significant difference between mean scores of Christian educators trained at Christian universities and public universities according to the *PEERS* test.

Most of the other studies involving Christian educators focused the teachers' role and preparation in developing students' Christian worldview. These studies (Crenshaw, 2013; Lewis, 2015; Mooney, 2018) found that teachers felt unprepared to develop their students' Christian worldview and to support their spiritual growth and development. In addition, a review of Christian teacher credentialing programs found that these programs focus more on teaching pre-service educators to assist student in preparation for careers rather than for lifelong faith development (Wells, 2016). Grauf-Grounds et al. (2009), Crenshaw, (2013), Lewis (2015), and Mooney (2018) found that during professional education programs, teachers were not trained to cultivate a Christian worldview, to educate students on developing a Christian worldview, to

support students in spiritual growth, or to connect a Christian worldview to academic disciplines. Cox & Peck (2018) emphasized, “it is relatively rare that Christian education for adults organically incorporates discipleship within academic and professional programs much less makes discipleship the guiding conceptual framework” (p. 243).

Implications

The results of this study indicate that Christian educators have a Christian worldview. Although many studies presented in the literature review indicated that the teacher’s beliefs influence their students’ beliefs, many of the statistics presented in the review of literature denoted that students are not adopting the Christian worldview (Berkman & Plutzer, 2015; Curry, 2017; Francis & Sion, 2014; Hanushek, 2016). Perhaps it is time to refocus Christian education on a firm foundation. This does not mean abandoning secular thought on developmental theory but incorporating developmental theory “as a vital dimension within a comprehensive theological orientation” (Espinoza & Johnson-Miller, 2014, p. 9). Developmental theory must align with the Immanuel principle that God is with His people and calls His people to be with Him. It must not be allowed to cause intergenerational and academic fragmentation or divert focus from scriptural reading and spiritual growth (Espinoza & Johnson-Miller, 2014). Christian education should develop a vital connection between generations, focus on Scripture, and challenge believers to lifelong spiritual growth and development. It must focus on direct instruction of biblical principles and theological knowledge. Without this foundation, teachers and students will not be able to use their faith to understand their lives or the world (Espinoza & Johnson-Miller, 2014). More simply, they will not be able to develop a Christian worldview.

This research shows that Christian educators have an integrated discipleship level Christian worldview and biblical theistic worldview, but the literature showed that many of these educators do not feel prepared to teach the Christian worldview or integrate it into their educational practices. This means that Christian teacher credentialing institutions need to incorporate a Christian dimension in their philosophy of education classes and their psychology of education classes. When studying Piagetian theory, Christian educators need to remember that the developmental stages are not static for every individual. Just as parents are instructed to consider a child's personality when instructing him (Proverbs 22:6), the teacher needs to consider the development of each student. Christian educators need to assess Freud's fixation ideology, which claims that denying or suppressing these physical impulses leads to psychoses and emotional disturbances (Cherry, 2010), in light of the moral purity and self-denial principles described in the Bible. In discussing Maslow's Hierarchy of Needs, Christian teachers need to realize that self-actualization is not the ultimate goal. Christian spiritual formation leads to identification of self as a created being who desires to glorify God and increase His kingdom, not glorify self and increase personal wealth and fame.

Christian educational institutions need to consider incorporating the work of Jacobs (2005), Lindeman, (2016), Shimabukuro (2008) and Espinoza and Johnson Miller (2014) to develop a uniquely Christian philosophy of education and pedagogy for education. Jacobs (2005) identified five graces that empower Christian educators to become spiritual leaders. Lindeman (2016) developed a model of Christian pedagogy that includes clearly stating goals and objectives, articulating a passion for subject matter, helping students recognize their preconceptions and reconstructing these ideas using a biblical lens. Shimabukuro (2008)

advocated a similar pedagogy. It included instructional practices that advance a community of learners to incorporate the creative Spirit of God into their learning.

Teacher credentialing institutions need to incorporate these principles of graces in their pedagogy and methodology classes. To achieve the mission and goal of successfully transmitting a biblical Christian worldview and transformational faith to students, Christian educators need to follow God's design, plan, and purpose (Wilson, 1991). Wilson (1991) urges the Church to *Recover the Lost Tools of Learning* and guide students into a spirit-filled relationship with Jesus Christ. Moreland (2007) in *Kingdom Triangle* promotes a return to an intellectual faith, soul life, and God's supernatural power. He encourages a whole-hearted devotion to God throughout curriculum and practice. Like Aquinas and Wilson, Moreland urges the Church to re-engage people's intellect and reason, challenging them to think critically about life, morality, and God.

It is paramount that the Christian schools return to foundational biblical principles, purposes, and roots. Christian education must focus on making disciples of all nations, passing on faith to the next generation, and instructing the next generation to honor and serve the Lord in all of life (Greene, 1998; Mitchell, 2010; Moreland, 2007). The Christian community has to develop and offer a uniquely Christian education by overtly and intentionally incorporating a Christian worldview into every aspect of the curriculum (Korniejczuk, 1994; Jang, 2011; Peterson, 2012). If it does not, it will reap the same results as the generations of Israelites in Judges, who did not know God.

Limitations

This study has added significant information to the study of Christian worldview assessment, but not without limitations. The sample population was a sufficient size to generate

valid results, but the ratio of participants for the three categories of the independent variable [Christian institution, 26.56% (n = 34); secular institution, 35.16% (n = 45), and no credential, 38.28% (n = 49)] were not equally distributed. Also, the population of the study was Christian educators teaching in ACSI affiliated schools, which might not be a representation of the general population of Christian educators teaching in other Christian schools or teaching in public schools. Another limitation of this study is the relatively small sample population. Although more than 2000 Christian educators teaching at ACSI affiliated schools in California were invited to participate in the study, only 128 responded with usable surveys. Also, the specific limited geographical area of California is a limitation to this study. Another limitation is that the instrument included self-reporting from the participants. Participants in the study may not have reported honestly for fear of retribution from school authorities. Alternatively, the participants may have been deceiving themselves regarding their behaviors or attitudes. They may have had a higher or lower estimate than the actual values.

Despite these limitations, this research presented meaningful insights into conducting worldview research with Christian educators.

Recommendations for Future Research

Quantitative Studies. This study validated the *3DWS* instrument with an adult population of Christian educators at ACSI affiliated schools in California. This was a small sample size. Research with additional participants from various types of Christian schools would be beneficial. Christian schools are not homogenous. A larger, more heterogeneous sample would increase the research literature pertaining to the Christian worldview of a more diverse group of Christian educators. A study involving ACCS schools, independent Christian schools, Catholic schools, and other denominational schools may produce different results. A larger or a

variety of geographic areas would provide additional information for increasing the research literature regarding the Christian worldview of Christian educators. The study as a whole could be replicated in a different setting (another state or country) or with a different population (teacher candidates or student teachers) to see if the results are similar or different. This research study did not collect data on the ethnicity of the participants. A new study could collect data regarding ethnicity to conduct an evaluation of variations of Christian worldview between ethnic groups. This study also did not collect data regarding denominational differences. A new study could collect data regarding denominational differences to conduct an evaluation of variations of Christian worldview between denominational groups. Finally, this study collected demographic data regarding gender and number of years teaching that were not discussed or analyzed for this study. Additional research could be done with the data collected for this study to determine if there may be other influences that significantly affect Christian worldview development. A possible future quantitative study could focus on reviewing the curriculum content of Christian Credentialing institutions. It could include identifying the course textbooks from Christian and non-Christian publishers. What percent is from Christian publishers? What percent is from non-Christian publishers? A study could review Christian textbooks for major deficiencies in the Christian worldview perspective.

Qualitative Studies. In addition to quantitative research, potential future qualitative research studies relating to the *3DWS* exist. First, future researchers could interview participants to obtain their suggestions about individual items on the survey to improve the clarity of the survey items. It would also be helpful to interview participants after they received their scores. These responses would be a beneficial to gain insight in regard to the educators' reactions to the score reports. Since this study was an anonymous study, participants did not receive a score

report, and they could not be identified for an interview. Another future qualitative study could interview California ACSI educators to investigate the factors that contributed to the development of the biblical theistic worldview mean scores on the *3DWS* and Integrated Discipleship worldview scores on the *WPMS* to determine if those factors could transfer to the development of Christian school student's Christian worldview. A possible qualitative study could interview teacher candidates or graduates on the biblical perspective of secular developmental theories or even how these concepts were addressed in their educational philosophy and methods classes.

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APPENDICES

Appendix A: Consent Form for Participants

Appendix B. Permission Letter from Participating Schools

Appendix C. IRB Approval

Appendix A: Consent Form for Participants

I request permission to include you in this study for the purpose of investigating your Christian worldview. This study is being conducted by: Mariellen True, Liberty University, Department of Education

Background Information:

The purpose of this quantitative study is to investigate the of Christian educators in the Christian school environment.

Procedures:

If you agree to participate in this study, you will be asked to: To complete a demographic survey and the worldview analysis test.

Risks and Benefits of being in the Study:

The risks are no more than would be encountered in everyday life. The proposed benefits to teachers and administrators of Christian schools will be a greater understanding of the spiritual formation of faculty and the implications to the school programs and mission.

Confidentiality:

The records of this study will be kept private. In any sort of report we might publish, we will not include any information that will make it possible to identify a subject. A pseudonym will be used for the school and participants. Research records will be stored securely and only researchers will have access to the records.

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 your place of employment or Liberty University. 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 Mariellen True. You may ask any questions you have now. If you have questions later, you are encouraged to contact me at: E-mail:

mtrue@liberty.edu or call (619) 990-6615. If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher(s), you are encouraged to contact Dr. Phyllis Booth at pbooth@liberty.edu, Committee Chair, Beverley Turner at turner.bdt@gmail.com, Committee Member, or the Human Subject Office, 1971 University Blvd, Suite 2400, Lynchburg, VA 24502 or email at irb@liberty.edu.

Appendix B. Permission Letter from Participating Schools

January 28, 2017

Name of School Official

Dear:

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 Curriculum and Instruction. The title of my research project is *A Study of the Christian Worldview of Southwestern U.S. Christian K-12 Educators*. The purpose is to compare the Christian worldview of educators who earned state teaching credentials at Christian institutions, to educators who earned state teaching credentials at secular institutions, and educators who did not earn state teaching credentials that teach in a Christian school environment in California.

I am writing to request your permission to utilize an email list of your graduates to recruit participants for my research. The email will be sent from you to your graduates, therefore I will have no direct contact with your educators, nor will they be asked for any of their personal contact information.

Participants will go to a webpage, click on the link provided and complete the attached survey. (If you would like to review the survey, I will gladly share it with you.) Participants will be presented with informed consent information prior to participating. Taking part in this study is voluntary, and participants are welcome to discontinue participation at any time.

The benefit to your school is that you will be able to see the results of your educators on the worldview survey and you will be sent the final report of the survey. The only information that will be included in the final study will be a comparison of the mean scores of educators according to their certification status and credentialing institution. No identifying features of

participating individual schools or the participants will be reported.

Thank you for considering my request. If you choose to grant permission, please respond by email to mtrue@liberty.edu and send a signed letter on official school letterhead indicating your willingness to participate to this address:

Mariellen True

8750 Springview Lane

La Mesa, CA 91941

Sincerely,

Mariellen True

Education Specialist e3 Civic High School

Doctoral Candidate Liberty University

Appendix C. IRB Approval

The Liberty University Institutional Review Board has approved this document for use from 7/17/2018 to – Protocol # 3317.071718

A STUDY OF THE CHRISTIAN WORLDVIEW OF SOUTHWESTERN
U.S. CHRISTIAN K–12 EDUCATORS

Mariellen True
Liberty University

You are invited to be in a research study of the worldview of Christian educators teaching in a California School. You were selected as a possible participant because you are a Christian educator teaching in a California School.

Mariellen True, a doctoral candidate in the School of Education at Liberty University, is conducting this study.

Background Information:

The purpose of this quantitative study is to investigate the Christian worldview of Christian educators teaching in California. Specifically, it seeks to assess the effect of teacher credentialing programs or teaching environment on Christian educator's BCHRISTIAN WORLDVIEW s.

Procedures:

If you agree to participate in this study, I would ask you to complete an online worldview analysis survey that will take approximately 10 minutes to complete.

Risks and Benefits of being in the Study:

The risks are no more than would be encountered in everyday life. Participants should not expect to receive a direct benefit from taking part in this study. However, the results of this study may give teachers and administrators of Christian schools a greater understanding of the worldview of faculty.

Compensation:

You will not receive any form of compensation for participating in this survey.

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. The survey will be anonymous and pseudonym will be used for the participating schools. Research records will be stored securely and only researchers will have access to the records. Data will be stored on a locked password protected computer.

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 your place of employment or Liberty University. If you decide to participate, you are free to not answer any question or withdraw at any time prior to submitting the survey without affecting those relationships.

The Liberty University Institutional Review
Board has approved this document
for use from 7/17/2018 to
Protocol # 3317.071718

How to Withdraw from the Study: If you choose to withdraw from the study, please exit the survey and close your Internet browser. Your responses will not be recorded or included in the study.

Contacts and Questions:

The researcher conducting this study is Mariellen True. You may ask any questions you have now. If you have questions later, you are encouraged to contact me at: E-mail: mtrue@liberty.edu or call (619) 990-6615. If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher(s), you are encouraged to contact Dr. Phyllis Booth at pbooth@liberty.edu, Committee Chair; Beverley Turner at turner.bdt@gmail.com, Committee Member; or Institutional Review Board, 1971 University Blvd., Green Hall Ste. 2845, Lynchburg, VA 24515 or email at irb@liberty.edu.

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

Statement of Consent:

I have read the above information. I have asked questions and have received answers. I consent to participate in the study. By clicking on the survey link you agree to participate in the survey voluntarily.