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The Effectiveness of Biblical Worldview Integration with Early Adolescents in Thailand

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Concordia University–Portland

College of Education

Doctorate of Education Program

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The Effectiveness of Biblical Worldview Integration with Early Adolescents in Thailand

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Concordia University–Portland

College of Education

Dissertation submitted to the Faculty of the College of Education

in partial fulfillment of the requirements for the degree of

Doctor of Education in

Transformational Leadership

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Concordia University–Portland

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Abstract

Christian educators and institutions may make use of an instructional pedagogy known as biblical worldview integration. This pedagogical instrument intentionally connects every aspect of the curriculum to at least one element of a biblical worldview to inculcate that worldview in students. This research study was conducted over the course of the second semester at a Christian international school in Thailand that implements biblical worldview integration across the curriculum. Focusing on Thai Buddhist middle-school students, research was conducted in three parts: pre- and post-surveys with students to determine change in worldview, parent interviews, and teacher interviews. While an analysis of the worldview surveys showed no statistically significant change in students' worldviews, the interviews with teachers and parents contravened the survey data, and revealed some factors may lead to student change. Interviews suggested the greatest method in effecting change in students was a strong relationship with teachers. It is recommended that educators who wish to make an impact on their students develop strong positive relationships with them. Worldviews develop over time; therefore, it is further recommended that further longitudinal research be conducted.

Keywords: biblical worldview, worldview, Thailand, international schools, Christian international schools, biblical worldview integration, integration of faith and learning

Dedication

This dissertation is dedicated to each of my students: past, present, and future. I pray you experience all the best God has planned for your lives.

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I would like to thank Dr. Kluth for working with me through this entire dissertation process. You have been a constant source of encouragement and guidance through this journey. I could not have accomplished this without you.

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Chapter 1: Introduction

Introduction to the Problem

Throughout the history of education, religion has played a prominent part. The first schools in many countries, including the United States and Thailand, were religious institutions (Singsuriya, Aungsumalin, & Worapong, 2014). In the United States, these first schools focused on building Christian character and morals in children (Mawdsley, Cumming, & de Wall, 2008). Over time, the educational system changed and public schools developed. However, even the first public schools in the United States included the Christian faith as the primary way to teach morals to the students. For example, the first public school in the United States, Boston Latin School, included Bible reading as a part of the admission process and Christian prayers as a part of the daily routine (Boston Language School Association, 2018). Most public schools included teaching the Bible in their curriculum, worship through singing hymns, and prayer (Alexander & Alexander, 2011). After World War II public schools in the United States began to separate from religion (Mawdsley et al., 2008). In Thailand, the first schools were located next to temples where Buddhist monks taught the local boys the core values of the Buddhist faith while teaching them how to read and write (Singsuriya et al., 2014). Historically, schools were developed around religious institutions.

Today, in Thailand, schools are required to integrate moral teaching into the curriculum at every age level. Although freedom of religion is practiced in Thai schools, most of the morals taught reflect Buddhist beliefs (Hilderbrand, 2014). Private, religious-based schools still exist and focus on instilling their core beliefs into their students' lives. Christian educators in Christian schools want their students to come to a saving knowledge of Christ as their personal Lord and Savior (Boele-de Bruin & de Muynck, 2017). They want their students to understand the world from a biblical worldview. This involves holding Christian values, viewing the Bible as the

primary source of truth, and interpreting other knowledge through the lens of the Bible. This belief is the driving purpose for the pedagogy used in many Christian educational institutions.

Many Christian schools make use of an integrated biblical worldview pedagogy. To teach using this method, all instructors must teach their content area from the perspective that everything in the Bible is accurate and applies to all parts of a student's life. The teachers incorporate this perspective into their classes in many ways but always with the purpose of integrating biblical values into the hearts and minds of their students (MacCullough, 2012). The problem identified within this dissertation is the lack of scholarly research conducted on the effectiveness of this pedagogy, particularly in countries that are not predominately Christian. Researchers usually learn the teachers' or students' perceptions on student learning rather than having quantitative evidence that supports these perspectives (Burton & Nwosu, 2003; Cooper, 1999; Lawrence, Burton, & Nwosu, 2005; Sherr, Huff, & Curran, 2007). This study used teacher and parent perspectives alongside quantitative data from student surveys in an effort to correlate the two. This adds to the field of study by gathering qualitative and quantitative evidence of the impact biblical worldview integration has on the worldview of Thai Buddhist early adolescent students in a non-Christian nation.

Background, Context, History, and Conceptual Framework for the Problem

All individuals have a unique worldview, a way of understanding the world around them. People develop worldviews throughout their lives based on culture, religion, and other life experiences. As people experience new things, their worldview develops and changes to incorporate the new experience. An individual's answers to existential questions may reveal his or her worldview (Sire, 2004). There are many definitions of worldview and several theories on how these views are formed. This study uses Sire's definition because it is a commonly cited definition by worldview and biblical worldview scholars (Barke, 2014; Esqueda, 2014; Fyock, 2008;

MacCullough, 2012; Mittwede, 2013; Rutledge, 2013; Schultz, 2012; Schultz & Swezey, 2013). A worldview influences the way an individual thinks, feels, and acts.

A biblical worldview is when the Bible has the most influence on the way an individual views the world. Another way to assess whether a worldview is biblical is to consider existential questions. Are the answers drawn from the Bible? According to Sire (2004), worldviews influence a person's motives and behaviors. A biblical worldview influences the motives of the heart to align with Christian philosophies, have biblical values, and act accordingly. For example, many Christians choose to work as educators because they consider teaching their calling and feel a sense of purpose and spiritual satisfaction. Although there is one Bible, many different forms of biblical worldview occur because of the numerous Christian denominations and interpretations of the Bible. Christian educators in religious institutions seek to help students develop a biblical worldview (Baumann, 2011; Kanitz, 2005; Schultz & Swezey, 2013; Schutte, 2008; Sire, 2004; Valk, 2012).

There are differing views of what comprises a biblical worldview. Common threads of a biblical worldview are asserted below. A biblical worldview is "a means of experiencing, interpreting, and responding to reality in light of a biblical perspective" (Barna, 2003, p. 5). It can also be defined as the biblical answers to life's important questions (Baumann, 2011; Sire, 2004). Researchers agree that individuals who hold a biblical worldview believe Jesus is God incarnate who lived a perfect life, died on the cross for the forgiveness of our sins, and rose from the dead so that we can be forgiven (Evans, 2015; Lanier, 2010). They believe God exists as a supreme creator, is all-knowing, and is all powerful (Barke, 2014; Evans, 2015; Lanier, 2010). A biblical worldview holds that Satan is a real being, not imaginary or a mere representation of bad events (Barke, 2014; Lanier, 2010). Individuals who hold a biblical worldview believe that morals are definite and unchanging, laid out by God, and explained to us in the Bible (Barke, 2014; Baumann,

2011; Evans, 2015; Lanier, 2010). They believe that salvation cannot be earned but is received through faith in Jesus Christ (Barke, 2014; Baumann, 2011; Lanier, 2010). As part of their worldview, these beliefs guide people's thoughts and actions (Sire, 2004).

Although many similarities exist in aspects of biblical worldview, the differences must be considered. Kanitz (2005) wrote an essay on biblical worldview that highlighted the differences in the worldview of Christians from different denominations and from different parts of the world. Many parts of the Bible may be interpreted differently by different people based on their experiences. The biblical worldview of the participating school is addressed in the Statement of Faith every teacher at the participating school must agree with before being hired. While it does not address every aspect of worldview, the Statement of Faith demonstrates the areas of Christian faith the board members believe are the most important for teachers to agree upon. Therefore, aspects of a biblical worldview are focused on a biblical worldview integration at the participating school.

Smith (2009) has a different perspective on worldview. He states that people's worldviews are, above all, shaped by what they desire and their actions rather than their knowledge. Because of this, Smith prefers not to use the term worldview as it implies a cognitive focus. Smith describes the way people's thought patterns, beliefs, and attitudes are formed by their exterior actions: "We are what we love, and our love is shaped, primed, and aimed by liturgical practices that take hold of our gut and aim our heart to certain ends" (2009, p. 40). Liturgies, as used by Smith, are practices that form our desires. These practices could be religious, such as going to church, or secular, such as going to a shopping mall. A biblical worldview, therefore, is developed by the liturgies Christians participate in, motivated by love for Jesus. These actions develop the thoughts and beliefs Christians have, which are their worldviews. Smith follows this discussion on worldview development and worship with a discussion on Christian education as it is currently

being practiced and what should be different. He suggests that the way Christian education is currently being implemented will help students develop the ability to think about the world from a biblical perspective, while not impacting their love for God. If the goal of Christian education is, “to form radical disciples of Jesus and citizens of the baptismal city,” Christian schools, as they are currently being implemented, are ineffective (Smith, 2009, p. 220). Smith calls for Christian educators to view biblical worldview as being developed by actions that show love and to change the way they teach to help their students cultivate a deep and powerful love of God. Smith’s view of biblical worldview and worldview development are not commonly seen in the research of other scholars. Therefore, this research is based on the definition of worldview provided by Sire (2004).

In Thailand, most people hold a Buddhist worldview. Buddhism emphasizes suffering and the pursuit to end suffering (Davis, 1997). In the Buddhist philosophy, suffering is inescapable while in existence, amplified by ignorance. To be free from suffering, one must reach enlightenment, which negates ignorance and allows the individual to reach Nirvana (Davis, 1997). The law of karma explains why good and bad things happen and that they are the consequences of previous actions. These actions could have occurred in the current life or a previous one (Davis, 1997; Jayasaro, 2013). This means anyone who is suffering (e.g., poverty, disability, disease) has earned their suffering through their own wrongdoing and ignorance (Davis, 1997). The only way to be free from suffering is by ignoring any selfish desires. Doing this perfectly requires following all of the more than 200 rules for morality (Davis, 1997). Most laypeople are not expected to follow all rules. They are expected to follow the five precepts: “refrain from: taking life, stealing and cheating, sexual misconduct, lying, alcohol and all substances drugs” (Jayasaro, 2013, p. 200). Buddhists are to have a high level of respect for their elders, especially parents and teachers (Davis, 1997). A Buddhist’s goal is to stop the cycle of rebirth by reaching Nirvana, a place of peace because there is nothing. According to Buddhist ontology, everyone must build enough

good karma to achieve enlightenment and accomplish this goal, otherwise they are stuck in a birth/life/death cycle (Davis, 1997; Jayasaro, 2013). These Buddhist beliefs permeate the worldview of the Thai people and are in opposition to the Christian beliefs taught at the participating school.

Helping students develop a biblical worldview is commonly done through the pedagogy of biblical worldview integration. A teacher or a religious institution can integrate faith and learning in many ways including curricular, cocurricular, extracurricular, informal, or relationship-driven. Often teachers focus on building relationships with their students and to become mentors inside and outside of the classroom to reflect the love of God and to bring legitimacy to their faith claims. Teachers need many skills to integrate a biblical worldview into an individual's daily life; consequently, teachers must employ critical thinking skills and students must be a part of the integration process (Bailey, 2012; Belcher, 2005). Worldviews change when new ideas conflict with what an individual believes to be true and when that individual is forced to adapt (Baumann, 2011). Students who are consistently encountering these conflicts and are given the tools to resolve them are active participants in developing their worldview (Bailey, 2012). Teachers help when they link a biblical worldview to the worldview students hold from their culture. Identifying similarities and differences facilitates students to transition smoothly (Mittwede, 2013). Teachers must have a strong biblical worldview to accomplish this goal because their worldview will be passed on to their students (Cooper, 1999; Esqueda, 2014). Therefore, it is incumbent upon Christian educators to have a worldview that has been subject to critical reflection and development.

Many adolescent students want to take worldview or religion classes so they can understand other people's perspectives more clearly. They want to respect and understand others who have different beliefs than their own, develop their personal beliefs, and build strong morals

(Kavonius, Kuusisto, & Kallioniemi, 2015; McKenna, Neill, & Jackson, as cited in Valk, Bertram-Troost, Friederici, Beraud, & Verlag, 2009). For these reasons and others, students enroll in Christian schools; therefore, teachers should consider student perceptions of the way the integration of faith and learning (IFL) is implemented. Many institutions facilitate this learning by creating a space that is safe and loving for students to explore new ideas about faith (Matthews & Gabriel, 2001). Students respond positively to educators who are willing to demonstrate an active faith life in and outside of the classroom, especially when they explore those ideas with students who seek advice about personal issues (Sherr et al., 2007). Failure to do so brings a negative attitude from students because the teacher loses integrity (Sherr et al., 2007). Inside the classroom, students often can provide examples of the teacher integrating content and faith but not of their own participation in this process, even though students at Christian schools demonstrate a desire to engage this way (Burton & Nwosu, 2003; Lawrence et al., 2005).

Children begin to develop their own moral standards and identify with their own faith in early adolescence. When children are young, they follow the rules and morals laid out by the adults in their lives (Kohlberg & Hersh, 1977). They begin to develop autonomy in this area when they can understand rules, connect to others through shared experiences, and make their own moral decisions (DeVries, Hildebrandt, & Zan, 2000). Morals develop throughout childhood as children become able to understand the difference between good and bad, understand moral expectations for their family and other groups they are a part of, and when they can define and apply their own individual morals (Kohlberg & Hersh, 1977). When children's morals develop, so does their faith. The only faith an infant can have is primal faith, which develops into intuitive-projective faith when a child is a toddler and in early childhood (Fowler & Dell, as cited in Roehlkepartain, King, Wagener, & Benson, 2006). Parents and teachers share their faith and ideas with children through stories and traditions. When children develop faith based on these stories, they transition into a

mythic-literature faith, often during middle childhood and early adolescence (Fowler & Dell, as cited in Roehlkepartain et al., 2006). During adolescence, children begin to take ownership of their faith and make personal decisions that are influenced often by the important people in their lives, although adolescents no longer blindly follow their parents and mentors (DeVries et al., 2000; Fowler & Dell, as cited in Roehlkepartain et al., 2006). This research took place during this important transition time.

Context of the Research Site

Research was conducted at a Christian international school in Thailand. The mission, values, and expected learning results are based on biblical principles and center on developing a Christian faith foundation so that students may become followers of Christ. Educators at the research site have various levels of fervency in their Christian faith. Each educator is a Christian and feels called to be a teacher at the school because it is a Christian institution with a majority of non-Christian students. This provides a unique opportunity to reach students and families who would not otherwise learn about Jesus. The teachers do this in a variety of ways. Many are mentors to small groups that meet weekly after school. Others coach sports, get involved in ministry events, work on community service projects, or volunteer with organizations outside of the school. A few teachers lost their fervor and no longer felt the calling to be at the school. These teachers chose to leave the school, often within one or two years, because they knew they no longer belonged.

Teachers at the school where the research was conducted were recruited in a variety of ways. Every year the headmaster spends several weeks traveling through the United States to job fairs at Christian universities. The headmaster makes connections with many young people who are looking for ways to use their skills as educators to serve in the mission field internationally. Students also are recruited through online platforms that advertise the need for Christian

missionaries in many fields. The most effective form of recruitment, however, is word of mouth from people who work or have previously worked at the participating school. The school encourages native English speakers to apply who have a teaching degree and a passion for serving God and sharing the gospel through teaching.

The students at the research site receive religious instruction every year from kindergarten through Grade 8. Elementary students learn the main stories and characters of the Bible and memorize key verses in the Bible. In middle school, every student learns about the foundations, morals, and values of the Christian faith. In these weekly classes, students are challenged to think critically about their religious beliefs. They engage in discussions about truth, forgiveness, mercy, and justice. Teachers ask them to defend their faith no matter what faith they believe in and to ask hard questions. Students must participate in critical analysis of the biblical themes they learn by answering weekly journal prompts. In high school, students must take two theology classes to graduate. One class is about Christianity and the other is about the worldviews of all major religions. All students must attend chapel every week where a teacher, parent, or community member shares a faith-based message, usually their testimony. The students discuss the messages later in the week during advisory time and in the religion classes.

Many differences exist between Christianity and the other religions of the students, especially Buddhism and Hinduism; however, many of the basic morals are the same. For example, all three religions emphasize community service and helping others (Promta, 2010). The significant differences are in the motivation for following those morals. Following the same example, Christians are motivated to help others because of the help and love they have experienced from God. The love they feel from Him makes them want to share that love with others by helping them whenever they can. Buddhists and Hindus may be motivated out of compassion and kindness, but they are also motivated by karma. They do good deeds to try to

balance any bad deeds they have done. Karma is used to explain why things happen, including grades, popularity, and bullying (Rappa, 2010). Students often question the motivation or reason for things because of the dissonance they feel.

Culturally, asking teachers and parents questions can be complicated for students. In western culture, students are encouraged to ask questions and think critically. In Thai culture, this is not the case. Students are scolded for asking their parents questions about their culture or faith because they should be obeying without question those in a higher position (Komin, 1990; Mann, 2012). Children may be confused because of the dissonance they feel when they hear one philosophy at home and the opposite at school. They can ask teachers questions but not their parents; consequently, they may have to deal with the conflict on their own. Thai culture teaches students to avoid discussing these issues with each other because they must save face. Many Thais believe it is better to pretend they understand things because they should avoid giving or receiving criticism (Hilderbrand, 2016). Most students try to work out the dissonance on their own. Others find non-Thai friends to talk to, seek out teacher mentors, or come to after-school outreach events focused on building community and worship.

People from many different religious and cultural backgrounds comprise the faculty, staff, and students. Teachers and students are aware of the variety of beliefs. Open discussion about these beliefs is encouraged, even if students do not hold the same beliefs as the teachers. Teachers allow students to disagree with, and even argue with them, during a religious discussion if the conversation is done respectfully. The instructors establish clear guidelines for these discussions to teach the students how to defend a controversial point of view without being offensive. Teachers and administrators do not show bias for or against students based on their religious beliefs.

Many students are non-Christians at the research site. However, students from non-Christian homes may become ostracized or punished for choosing to become a Christian. Thai

culture is so closely connected to Buddhism they are often seen as the same thing; to be Thai is to be Buddhist (Khareng, Awang, Machae, Rahman, & Ismail, 2016). Several instances occurred when students decided to become Christians or wanted to explore Christianity as an option, but their friends and parents did not allow it. Some students currently in the middle school are no longer allowed by their parents to participate in life groups or after school outreach events because they showed an interest in Christianity. Each family and friend group have a different perspective on what religions are acceptable. The school has support systems in place for students and their families who are going through that journey of faith.

Even if they are against Christianity, the parents of the non-Christian students send their children to private Christian schools for several reasons. Parents look at international schools for their quality of education, especially English language skills. The school where the study took place is unique for several reasons. One reason is that parents know their children will learn good morals and will have opportunities for community service (Peterson, 2017). From a non-Christian perspective, these resources help their children become better people and earn good karma. After spending time on the campus, the parents and students often choose this school because of the sense of community. They see that the teachers consistently show genuine love and concern for their students, and the students themselves are happy to be at school. The positive community and high-quality education are the main reasons why even non-Christian parents send their children to this Christian school.

Problem Statement

Based on the review of literature in Chapter 2, little research exists that determines the effectiveness of a biblical worldview integration pedagogy, especially with early adolescents. The following two questions drive this study: (a) What is the impact of the pedagogy of biblical worldview integration on the worldview of middle school students who attend a Christian school

in Thailand? (b) What impact does pedagogy have on students of different religious and ethnic backgrounds? This researcher developed these questions into the three research questions that guided the study. The researcher was influenced by the lack of information on the biblical worldview pedagogy impact, as described in the literature review. The purpose of this research is to study this impact in a Christian international school in Thailand.

Purpose of the Study

The purpose of the study is to determine the impact of the pedagogy of biblical worldview integration that occurs in the worldview of early adolescent students in a Christian international school in Thailand. Through the analysis of pre- and post-surveys, student worldviews were compared to determine the change that occurred during one semester at a school implementing biblical worldview integration. Qualitative data was gathered to answer the research questions. Triangulation of data through the combination of qualitative interviews with parents and teachers and quantitative data from the students' survey results will facilitate future Christian educators to make decisions about implementing biblical worldview integration in an international setting. Educators may be able to discover how to implement the pedagogy effectively, without the bias that may be present because Christian educators want their students to become Christians.

Research Questions

To help educators in Christian schools effectively implement a biblical worldview pedagogy, the current practices must be determined to be effective. The research study investigated three research questions:

RQ1: What is the impact of biblical worldview integration on the worldview of Thai

Buddhist middle school students at a Christian international school in Thailand?

RQ2: What is the difference in the impact of biblical worldview integration at this school for Thai Buddhist students and for those from different religious and ethnic backgrounds?

RQ3: What is the impact of biblical worldview integration in each of the three areas of a worldview: emotional/spiritual, propositional knowledge, and behavioral?

Rationale, Relevance, and Significance of the Study

This study is significant for several reasons. Administrators and instructors at the research site may find the results useful for the development or revision of curriculum and implementation of effective teaching methods. The data provides insights into the way middle school instructors implement biblical worldview integration and the worldview of the middle school students. By determining the effectiveness of the biblical worldview integration efforts, administrators will know if they need to address these methods in future professional development efforts or if they are successful in the way they currently implement these methods. Administrators may determine that they need to give support on an individual basis with the teachers who demonstrate a need. Conversely, they may need to lead professional development with the entire staff if the results determine consistent areas that need support.

The study is significant because of the lack of published research on the effectiveness of the pedagogy of biblical worldview integration. Christian educators may benefit from having access to research that addresses the effectiveness of the pedagogy. This access may allow them to make informed decisions about implementing the pedagogy or not. The qualitative interviews with middle school teachers provided examples of the specific methods implemented so educators using the study will have examples of what was or was not effective.

Conducting the research at an international school in Thailand, a primarily Buddhist nation, provides a unique setting for research about Christian religious education (Senasu & Singhapakdi,

2017). Scholars may find the research useful because of the unique setting and the variety of ethnic and religious backgrounds of the participating students. Much of the research that has been conducted in the field of Christian education included students who come from Christian families or are surrounded by Christian culture (Barke, 2014; Burton & Nwosu, 2003; Lawrence et al., 2005; Rutledge, 2013; Schultz, 2012; Sherr et al., 2007). Consequently, determining what part of their worldview development was influenced by their education instead of their family, church, or other Christian influences may be difficult. Conducting research in a non-Christian nation with most students from non-Christian families provides the unique opportunity to study biblical worldview development with few outside influences.

Educators who work with early adolescent students also may find the research useful. Research in IFL focusses primarily on students in high school or university. Early adolescents are in a different stage of development, and educators may be challenged to know what aspects of the current research will apply to younger students and what is influenced by the data on older and more developed age of university and high school students. The IFL and biblical worldview integration pedagogies may have different levels of effectiveness with students of different ages. By comparing the results of this research to published research, educators may be able to compare and analyze the differences as they determine if and how they should implement biblical worldview integration.

The study may be significant to scholars who study worldview development. The study analyzed the results of a pre- and post-survey that measured the worldview of students by comparing the results to a biblical worldview, interviews about implementation of biblical worldview integration with teachers, and interviews with several parents about the impact of the school on their child. Worldview development scholars may find these results useful because of the potential to determine the influence education has on the way early adolescents perceive the

world. The study is unique because it takes place in a non-Christian country in a school in which most students are from non-Christian families. This allows the research to focus on the school's impact because most of the students do not encounter other Christian influences.

Definition of Terms

Scholars have specific terms when describing worldview, faith, and education. These terms will be used in this paper to ensure the meaning is clear for all readers.

Worldview:

A worldview is a commitment, a fundamental orientation of the heart, that can be expressed as a story or in a set of presuppositions (assumptions which may be true, partly true, or entirely false) which we hold (consciously or subconsciously, consistently or inconsistently) about the basic constitution of reality, and that provides the foundation on which we live and move and have our being. (Sire, 2004, p 122)

Biblical worldview: “A biblical worldview is a means of experiencing, interpreting, and responding to reality in light of biblical perspective” (Barna, 2003, p. 5).

Biblical worldview integration: An instructional pedagogy used in Christian schools, in which every content area is taught from a biblical perspective and worldview concepts are intentionally integrated into every area with the intention of developing a biblical worldview in the students (MacCullough, 2012).

Integration of faith and learning: An instructional pedagogy used in Christian schools, in which students learn about the Christian faith while also learning the other content areas. The purpose of IFL is often to teach students about the Christian faith but not necessarily about the Christian worldview.

Religious education: Any form of education that is associated with a religion. This term does not denote a particular pedagogy or faith used by the school or the individual teachers.

Buddhist/Buddhism: Buddhism as practiced by the Thai people, Theravada Buddhism.

Assumptions, Delimitations, and Limitations

Assumptions. Several assumptions are identified in this study. One of the assumptions is that Christian educators who work in a Christian school want their students to come to a saving knowledge of Christ (Boele-de Bruin & de Muynck, 2017). This assumption includes all teachers at the research site. It is assumed teachers at the research site implement biblical worldview integration to the best of their ability, as self-disclosed in the teacher interviews. At the beginning of every teacher interview, each teacher was informed their answers would not be stored with their personal information, and individual details of their responses would not be shared. The results of all the interviews are shared in aggregate to protect the privacy of each participant. Parents who chose to participate in interviews were assumed to give honest answers because they volunteered to participate, knowing in advance that they would be answering questions about their experience with the participating school. The final assumption is that the participating students answered survey questions honestly and to the best of their abilities. To ensure this occurred, it was explained to the students that their responses were confidential and that no incentive or penalty would be incurred because of their choice to participate or their responses. For these reasons, we can assume the data collected represents the participants accurately.

Delimitations. This study has several delimitations. The research site was at a Christian international school in Thailand. It was chosen because of the unique mix of religions and ethnicities among the students and because of the school's commitment to building a positive Christian environment that permeates every aspect of the school. The ethnicity, religion of students, number of students, and age of students are also delimitations. All the middle school students at the research site were invited to participate in the research. The exact blend of age, ethnicity, and religious background varied depending on the current enrollment.

Limitations. Several limitations were identified in this study. One of the limitations was students knowing the purpose of the study. Knowing that their worldview was being studied may have impacted their answers; consequently, the students were told that the purpose of the study was to determine the effectiveness of one of the teaching methods used at the school. Another limitation was that the worldview questions on the survey may have been new to the students. If the students had never thought about these topics before, they may not have known how to answer the questions, leading them to consider random answers instead of ones that match what they believed. To reduce the impact of this limitation, the survey questions were written specifically for early adolescents, touching on issues that they encountered in their daily life when possible. A third limitation of the study was if participating students gave a culturally appropriate answer, or the one that their friends or families expect, instead of what they believed for fear of what their friends may have thought or out of habit of hiding these views from others. To reduce this risk, the researcher emphasized to the participants that their answers were anonymous and their name was not to be identified. Finally, many English language learners in the school may have not understand all the questions or the purpose of the some of the questions. To avoid this, the survey was written with as simple language when possible.

Summary

Biblical worldview integration is a commonly used pedagogy in Christian schools to help students to develop a biblical worldview. The school that participated in the research used biblical worldview integration at all age levels, including early adolescence, which was the age group that participated in the research. At this age level students develop their morals, faith, and worldview. This research studied the effectiveness of biblical worldview integration as implemented in a Christian international school in Thailand. Determining effectiveness occurred through triangulation of data gathered from student surveys, teacher interviews, and parent interviews.

An extensive literature review has been conducted. Chapter 2 includes an in-depth discussion of the conceptual framework used in in this study and a review of research conducted about worldview, biblical worldview, religious education, moral education, and Thailand. These are followed by a synthesis and critique of the research findings. The literature review provides the foundation for the study.

Chapter 2: Literature Review

Introduction

Historically, education in Thailand began as an extension of training by Buddhist monks to the laypeople in the neighboring homes and villages (Singsuriya et al., 2014). Thai education, while extended beyond the role of monks, continues to teach Buddhist morals in an integrated fashion (Hilderbrand, 2014). Educational law in Thailand changed in 1977 to include the teachings of religious and ethical values to all Thai children in public schools (Sangnapaboworn, as cited in Yonemura, 2007). Western missionaries established international education in Thailand in the 1800s and created private specialty schools that also taught Christianity (Jimenez & Lockheed, 1995). King Rama IV, Phra Chom Klao Chao Yu Hua, approved of Western education but believed that teaching should be from a Buddhist instead of a Christian perspective. Higher education in Thailand followed suit and was developed as a response to the colonization of the surrounding nations (Rhein, 2016). Although many aspects of Thai education changed, some missionaries use the indigenous peoples' desire for an international education as a method for spreading the gospel to the Thai people. These Christian international schools often use biblical worldview integration as a teaching methodology so that students can interact with a Christian worldview as often as possible. Due to the importance of biblical worldview integration for the spreading of the gospel, biblical worldview integration must be effectively implemented.

Research focus. Biblical worldview integration is a pedagogical technique that is used in every Association of Christian Schools International (ACSI) accredited school in Thailand (ACSI, n.d.). By teaching every content area from a Christian perspective, educators hope to introduce students to the Christian faith, deepen students' relationships with God, teach students how to think critically, and enable students to understand the world from a Christian perspective. When used in a nation with a non-Christian culture, such as Thailand, biblical worldview integration often

focuses on teaching students how to think critically about themselves, their beliefs, and about the world around them when confronted with conflicting ideas (MacCullough, 2012). Christian international school administrators often use the curriculum to engage students and to encourage them to develop their own ideas about their beliefs instead of blindly following their parents' ideas (Peterson, 2017).

Middle school is an important developmental time in a person's life. Adolescents are moving away from a faith based on the stories that adults told them and when they instead begin to develop their own understanding of their faith (Fowler & Dell, as cited in Roehlkepartain et al., 2006). Studying biblical worldview integration at this development stage helps determine the role education may have on a child's worldview development.

Context. This study was conducted at an international Christian school in Thailand. Thailand is a Buddhist nation with more than 90% of its citizens practicing the Buddhist faith to varying degrees (Roof & Juergensmeyer, 2012). Buddhism is an important part of Thai culture and is closely linked to the identity of being Thai. The pervasive nature of Buddhism caused significant differences between the worldview of most Thais and a Christian biblical worldview. These differences lead to challenges when teaching from a Christian perspective in Thailand and emphasize the importance of determining if biblical worldview integration is used effectively.

The pedagogy of biblical worldview integration is difficult to implement and even more challenging to measure its effectiveness. Biblical worldview integration means teaching every content area from the point of view that the Bible is accurate and to link the educational content to biblical ideas (MacCullough, 2012). Each school integrates a biblical worldview in different ways; however, few assess it to determine its impact. It is difficult to measure the change of worldview that occurs within students and even more difficult to determine if this impact is the result of the teaching methods or the children's natural development. Testing and analyzing this methodology

is important for educators to be more effective in understanding biblical worldview integration and the impact it has in practice.

Significance. As a researcher, I have a personal interest in studying the effectiveness of biblical worldview integration with middle school students in Thailand. I am a Christian missionary and teacher at a Christian international school in Thailand. As a Christian, I believe that salvation only comes through repentance and a personal relationship with Jesus Christ as our Lord and Savior. I also believe that it is my responsibility to share the good news of the gospel and make disciples to the ends of the earth (Matthew 28:18-20, NIV). As an educator, I believe that every child has the right to a high-quality education integrated with the truth. Biblical worldview integration provides this education while incorporating the gospel and the truth of God's character. I believe the Christian message must be delivered consistently and effectively, which is why I think this study is so important.

Studying the effectiveness of biblical worldview integration is important to me and to Christian educators around the world. Most Christian teachers want their students to grow closer to God through their studies (Boele-de Bruin & de Muynck, 2017). The integration model has the specific purpose of developing a biblical worldview in students through their courses (MacCullough, 2012). Educators often use this model; however, it is seldom assessed for effectiveness. It is difficult to measure an individual's worldview and even more difficult to determine to what extent any change that occurred in a student's worldview is the result of the school's efforts, as compared to outside influences. Studying the biblical worldview integration methodology in Thailand provides the unique ability to study the worldview change in students with little to no Christian influences outside of school. This research provides a new perspective in that it studied middle school students and students with limited outside Christian influences. The

impact of the research may help Christian educators worldwide become more effective instructors and mentors.

Problem statement. Many Christian school teachers implement biblical worldview integration but have no clear measurement of the impact it has on students and if it is achieving its purpose. It is important to determine if biblical worldview integration is being effectively implemented at the middle school level in Thailand. The goal of this study was to determine if the use of biblical worldview integration brings the worldview of early-adolescent Thai students into alignment with a biblical worldview.

Organization. The following literature review consists of several parts. First, the conceptual framework for the study is presented as a basis for understanding the perspective of the study. A review of the research literature and the methodological issues surrounding the study of biblical worldview integration will follow. These findings are synthesized. The literature review concludes with a critique of the research.

Conceptual Framework

Most Christian educators who teach in a Christian school want to assist with the spiritual development of their students (Boele-de Bruin & de Muynck, 2017; Schutte, 2008). Many educators do this by incorporating a biblical worldview into their curriculum, often without fully understanding what a worldview is or how individual teachers affect it.

A worldview is a commitment, a fundamental orientation of the heart, that can be expressed as a story or in a set of presuppositions (assumptions which may be true, partly true, or entirely false) which we hold (consciously or subconsciously, consistently or inconsistently) about the basic constitution of reality, and that provides the foundation on which we live and move and have our being. (Sire, 2004, p. 122)

Everybody's worldview guides their individual behaviors and beliefs (Esqueda, 2014). From an educational standpoint, the worldview of an educator guides the way they teach and influences their behavior with students (Holloway, 2014). Educators' worldviews inform contributions to the worldview formation of students as they learn and interact with their teachers. At the participating school, educators agree that they agree with the statement of faith presented by the board, revealing core aspects of a biblical worldview defined by the school. In a Christian school that seeks to integrate a biblical worldview, the teachers' integration of their worldviews is an intentional aspect of a child's education (Badley, 2012). Educators reveal their biblical worldview in the way they teach the content, the themes they draw from the material, and their interactions with the students. Christian educators often want to help their students come to know Christ in a deep and meaningful way and to help students to develop a biblical worldview. "*A biblical worldview* is a means of experiencing, interpreting, and responding to reality in light of biblical perspective" (Barna, 2003, p. 5).

Christian international schools often use biblical worldview integration as a methodology for imparting Christian beliefs to their students. Many methods exist, however, MacCullough's (2012) theory of integration is the best way to describe the ideal biblical worldview integration situation. According to MacCullough (2012), a biblical worldview must be at the core of everything at the school, including the classroom. The teachers and administrators must have a biblical worldview that is developed enough to see the ways that the content areas are connected to truth as described in the Bible. With an understanding of the biblical perspective at the core, all the content areas revolve around it. The role of a Christian teacher is to identify and incorporate aspects of the curriculum that connect the content to the core biblical perspectives that form a biblical worldview.

Integration within a curriculum is not reserved solely for Christian schools. In Thailand, schools must integrate moral education into their curriculum (Hilderbrand, 2014). Most Thai schools teach morality from a Buddhist perspective, but that is not a legal requirement (Singsuriya et al., 2014). Moral education is often perceived to be a secular endeavor but aims to shape students' worldviews by telling them what is right and what is wrong and by attempting to influence their behavior accordingly (Van der Kooij, de Ruyter, & Miedema, 2015). Therefore, teachers can use moral education to shape the worldview and identity of students as they pass through the stages of moral development.

Individuals go through several stages of moral development throughout their lives. Educators significantly impact the children's development because many of these stages take place during the years a child is at school. Kohlberg and Hersh (1977) discussed Kohlberg's theory of moral development; the first stage is the preconventional level, where children understand the roles of good and bad as they pertain to rules and the consequences of following or breaking the rules. The next stage is the conventional level during which children conform to and advocate for the perceived expectations of their family or group, which may include friends or their school. The final stage is the post-conventional stage, during which children can define their moral values and apply them individually (Kohlberg & Hersh, 1977). Other theories of development commonly used are based on the work of Piaget (1959), Vygotsky (1962), and Erikson (1950). Kohlberg's theories of moral development are primarily used because they are more closely aligned with the research that has been done on faith development (Fowler & Dell, as cited in Roehlkepartain et al., 2006).

Worldviews, like moral development, are developed continuously as one learns and grows. Not everyone can explain their personal worldview, but everyone possesses them (Baumann, 2011). Worldviews are the way we form ideas and the ideas inform the way we interpret the

world. People develop worldviews throughout one's life, as seen in the theories of identity development presented by Erikson (1950) and Kohlberg and Hersh (1977). Similar stages of development occur in faith development.

Faith contributes significantly to one's worldview and is distinctly related to the formation of a biblical worldview. The stages of faith development are related to the stages described by Erikson and Kohlberg and Hersh (1977) but are focused on the way religion and faith change as an individual matures and interacts with the world in increasingly abstract ways. The faith stages begin with primal faith from birth to around two years old. Toddlers are commonly in the intuitive-projective faith stage through their early childhood years, where they form their faith through the stories told by their teachers and parents and through the ideas they have of right and wrong (Fowler & Dell, as cited in Roehlkepartain et al., 2006). Middle childhood into adolescence is the start of the mythic-literal faith stage. In this stage, God is often like a consistent but fair parent. Children move into the synthetic-conventional faith stage in adolescence when they discover that good things happen to bad people and bad things happen to good people. In the synthetic-conventional faith stage, adolescents become more concerned with the way others view them because this is the first time they can understand that others see them differently than they see themselves (Fowler & Dell, as cited in Roehlkepartain et al., 2006). Their faith in this stage is commonly formed on the ideas of those around them, just as in the conventional stage of moral development. Later stages of faith may or may not occur in an individual and include individual-reflective faith, conjunctive faith, and universalizing faith (Fowler & Dell, as cited in Roehlkepartain et al., 2006).

Because of the developmental significance during early adolescence, this study focuses on middle school students. Both Kohlberg's theory of moral development, as discussed in Kohlberg and Hersh (1977), and Fowler and Dell's (as cited in Roehlkepartain et al., 2006) theory of faith

development point to the developmental significance of early adolescence. During this time, most students in an American or Americanized school system would be in middle school, between ages 10 and 14 years. This is when children start to develop personal ideas about spiritual matters. Their ideas are no longer based on the stories that have been told by their parents and teachers, but their beliefs become more logical and personal. They become able to deepen their ideas of faith and can start to see the world from multiple perspectives instead of just their own (Fowler & Dell, as cited in Roehlkepartain et al., 2006). Encountering multiple perspectives is common in an international school, as students are challenged by interacting with people who come from many different nations, religions, ethnicities, and socioeconomic positions. They must be able to interact well with these people and share ideas together, even when their beliefs and family structures differ.

Educators and other academics involved in the study of adolescents and identity may find the study useful for several reasons. First, the study of faith and worldview development in early adolescence is important because of the developmentally significant stages of children. Most of the research conducted on the pedagogy of biblical worldview integration was at the high school or university level, which is after children make many developmental changes in their worldview and in their beliefs. Individuals working at Christian schools should be interested in this research because it examines the effectiveness of biblical worldview integration, a theory that researchers have not focused on. Educators may find this study useful because it helps to identify the impact teachers have on their students, especially in teaching from a worldview or perspective and how that affects the way students build their own worldviews. Educators of secular schools can use the research, as teachers' ideas subtly impact their students. This is even more important in an international setting where teachers may hold worldviews vastly different than their students.

Review of Research Literature and Methodological Literature

The reviewed literature will be discussed in several groups. The first group is literature focused on worldview. Next, biblical worldview integration articles are discussed, focusing on theory and literature reviews. This is followed by research articles about biblical worldview integration. A discussion of relevant articles pertaining to religious education is next. Further, a group of literature pertaining to moral development and education will be discussed. Subsequently, a group of research related to faith development is analyzed, followed by relevant research related to Thailand. The final group of literature discussed is dissertations about religious education.

Worldview. Worldview is a complex topic that encompasses many areas about the way people think, what they believe, and how they act. Everyone has a different worldview, even people from the same culture and belief system, because of their different experiences. Little literature exists on worldview. Many papers describe the theory of worldview or differences in worldviews from multiple perspectives. Many published papers are about the theories developed from the literature on this topic, which include Belcher (2005), Kanitz (2005), Schultz and Swezey (2013), Valk, Belding, Crumpton, Harter, and Reams (2011), and Valk (2012). In addition to theoretical articles about worldview, researchers have written many books about worldviews in general or about biblical worldviews (Barna, 2003; Bertrand, 2007; Blamires, 1963; Naugle, 2002; Newport, 1998; Palmer, 1998; Sire, 2004; Walsh & Middleton, 1984; Wilkens & Sanford, 2009). To present the best literature review possible, this literature review includes the books that are most often cited by scholars in the biblical worldview field.

Sire (2004) presented a comprehensive discussion of the nature, components, and definition of worldview. He concluded that ontology came first and is the foundation of worldview. He described the influence that religion and culture have on worldview, especially in that they are so

connected to worldview that one cannot to separate them. He presented a list of existential questions that worldviews answered and defined worldview and how it relates to a biblical one.

A worldview is a commitment, a fundamental orientation of the heart, that can be expressed as a story or in a set of presuppositions (assumptions which may be true, partly true, or entirely false) which we hold (consciously or subconsciously, consistently or inconsistently) about the basic constitution of reality, and that provides the foundation on which we live and move and have our being. (Sire, 2004, p. 122)

Sire's definition of worldview will be used throughout this research because of how thorough it is and how often other scholars use it.

Blamires (1963) wrote about worldview, specifically about the way a Christian should think. This book is a seminal work in the biblical worldview field because it is one of the earliest books to present the differences between a biblical/Christian worldview and a secular worldview. Blamires discusses characteristics of the Christian mind, including thoughts about the supernatural, the awareness of evil, how one thinks about truth, love for people, how to treat authority, and religious sacraments and traditions. Blamires writes from a Western perspective about how the culture is changing from Christian values to secular and or non-religious values. This work comes across as dichotomous in nature (either secular or Christian) without discussion of other religious views. Even from this limited perspective, the book explains the way the Bible says one should think about the world.

To determine the trends in worldview and the field of Christian education, Belcher (2005) wrote a literature review. Her essay grouped prevalent worldview literature, mostly books, by year and identified the trends that they present. Her focus was on the way worldview relates to education. She provided suggestions for teachers who want to develop the worldview of their students or integrate worldview into their teaching. Belcher suggested educators should spend

time reflecting on their own worldviews and bring in real-world application so students can interact with these ideas. Belcher recommended that educators should build relationships with students so they can see that the teachers live with integrity and are mentors to students who want to talk and grow with them.

In her theoretical essay on biblical worldview, Kanitz (2005) addressed some of the assumptions that scholars have made in biblical worldview literature. She raised the concern that most scholars focus on the commonalities found in Christianity but do not address the differences in the way different denominations interpret the Bible. This causes the existing research to assume that one concrete definition of a biblical worldview exists. However, Kanitz claimed that it is impossible to have one standard for a biblical worldview because a worldview is determined by a variety of factors including personal life experiences and culture. No two people hold the same worldview because everyone has unique experiences. Therefore, it is inaccurate that only one definitive biblical worldview exists. Christians interpret the Bible in slightly different ways, so researches must factor in the variety of worldviews that occur in Christian education, especially when multiple denominations are represented in the same group. When teaching from a biblical worldview or about a biblical worldview, educators should address these differences.

Worldview is a complex topic that can be difficult to define and even more difficult to research. Sire (2004) gave a commonly accepted definition of worldview. Schultz and Swezey (2013) analyzed this definition in their literature review about biblical worldview. They focused on the changes Sire made to his definition of worldview over the course of his career and linked it to a biblical worldview and to the Bible. A worldview consists of more than beliefs and knowledge; a worldview involves the motives of the heart and an individual's behaviors. Schultz and Swezey's literature review concluded that Sire's definition is the most biblically accurate way to consider worldview because of its relation to the greatest commandment, "Love the Lord your

God with all your heart and with all your soul and with all your strength and with all your mind”
(Luke 10:27 NIV).

Worldviews are significant in more than in the study of theology or education. Valk et al. (2011) built upon previously conducted research of worldview and leadership and provided a theory for effective leadership. The authors discussed the importance of leaders knowing their own worldview and having an open mind when interacting with people who have different worldviews. Self-awareness is important in leadership because the leaders’ values impact the organization and how it is run. Different generations have different foci or worldview commonalities due to differing circumstances. For example, millennials have proximity and cultural experiences with different groups of people because they grew up with access to the internet and smart phones. Their parents did not have access to the same experiences. Leaders are challenged not to interpret other people’s ideas based on their own worldview and excluding other ideas, because the result may not reflect the worldview of another person. As global interactions are more commonplace, this becomes more important so that conversations can be enhanced, and multiple perspectives can be considered. By studying their own worldview and the worldview of others, leaders will give themselves an edge in business.

Valk (2012) described different parts of a Christian worldview. The author used worldview questions as a tool to organize information and provide detailed responses to the worldview questions. Although not research on its own, the author organized information from other literature sources to summarize the core elements of a Christian worldview. Valk encouraged educators to use these worldview questions to challenge students so that they might become aware of their personal worldview, grapple with the concepts, and incorporate aspects of a biblical worldview.

Neshama-Bannister (2016) created the Worldview Diagnostic Scale that can be used in the field of social work to help train future social workers on how to handle spiritual and religious issues. This tool was designed to help social workers identify their own worldviews so that they are more aware of themselves and how their worldview may impact the way they help clients. The instrument is from a Western and Christian perspective, demonstrated in that it measures the level to which an individual has a biblical worldview across different dimensions of a worldview, implying that the individual has some level of biblical worldview without including other worldview influences. Neshama-Bannister did not claim that this is better than having a liberal and non-religious worldview. Its design is simple but has not been tested for validity or reliability.

As a missionary and researcher, Trull (2015) created a model that shows differences between two worldviews. His essay was written for missionaries who want to connect to the culture and worldview of the people group they work with. He explained the model by drawing a representation of a biblical worldview and one of the worldviews held by Theravada Buddhists. The models include three aspects of worldview: how they think about the physical world, how they think about a higher power or spiritual world, and how the people think the two areas are related. Differences were measured on a scale of zero to five. While this model did not address the nuances of a worldview, it was a simple way to visualize the worldview of people groups, which may be a helpful starting place for researchers or educators.

Another Christian missionary, Mittwede (2013) wrote about his theory for impacting the worldview of those in his ministry using narrative research. He used examples from his time in Turkey and a detailed literature review of worldview to support his theory. Mittwede explained the importance of linking theological training and discipleship with the worldview that a student has because this link would help them connect the information to what was previously known. Students studying Christian theology who are from a non-Christian culture will need this

application to retain the information and connect it to their lives. He theorized that drawing theological connections between their current worldview and a biblical worldview will result in more of a worldview change than programs that only focus on aspects of a biblical worldview.

Bowman, Felix, and Ortis (2014) recognized that most worldview research conducted in the field of education has been from a Christian perspective. The authors conducted quantitative research at the university level to study the differences between students from different religions in measurable areas, such as grade point average, graduation rate, perceived growth, and satisfaction of the college. The 3,098 students who participated in the study were from 28 colleges in the United States and represented many religions. The researchers gave five surveys, one each year beginning the start of freshman year, continuing for the four years the participants were in school. This research found that the scores from Buddhists, Hindus, and Muslims were statistically similar in most areas. Jewish students were more successful academically according to GPA and with perception of religious growth. Another significant conclusion is that the students who do not have a religious affiliation scored significantly lower in questions about satisfaction and perceived growth, often related to skepticism. Conclusions can be drawn that the religious background and worldview of students has a measurable impact on the performance of students at a university level. The validity of these conclusions must take into consideration that the researchers did not discuss socio-economic factors, family academic history, or the nationalities of the participants. These important factors should be considered when conducting research at a university level.

Biblical worldview integration: Theory and literature reviews. Bailey (2012) wrote a theoretical research paper to identify the skills students need to integrate their faith life into a secular society and how the various approaches of faith-learning integration focus on student skill development. Students often think that it is a teacher's job to do the integration. He concluded that faith and learning integration should include aspects of critical thinking skills so it was not a

passive experience for students. He theorized this type of integration would help the students better integrate their faith into their lives. Baily described the proposed critical thinking model of faith-learning integration and provided examples of how to use the model to help develop the worldview of children.

Individuals' worldviews guide their actions and determine the way they think about and perceive the world. Because it impacts thoughts and actions, worldview is directly related to education and the way a student learns content. Esqueda (2014) presented the theory that faith and learning are connected and that a biblical worldview is needed to find the connections between the two. They are not dichotomous entities because everything, including educational instruction, is perceived through one's worldview. The worldviews of the teachers in a Christian school are essential for successfully integrating a biblical worldview. Esqueda explained that the worldviews of teachers impact the way they present content material and, therefore, impact the way their students think about the content. Without a strong personal faith life and understanding of the Bible, teachers will not be able to integrate faith and learning.

To emphasize to Christian educators the importance of a biblical worldview, Baumann (2011) wrote on the theories and research about biblical worldview and the methods that can be implemented into the field of education. He theorized that an education from a distinctly biblical worldview that engages students is transformative by nature. A worldview is developed internally as an individual grows and matures, but the community helps the students learn and develop that worldview. Worldviews change and transform when individuals encounter something that does not fit the previous way of thinking and when they are forced to grapple with a new idea. Christian educators have a responsibility, according to Baumann, to provide their students with these opportunities on a consistent basis and to guide their students to help them develop a biblical worldview.

Badley (2012) wrote a theoretical paper on the integration of faith and learning to determine where the integration occurs in Christian universities. Many Christian universities claim that they use the pedagogy of faith-learning integration but use the integration in different ways and places. Some educators tailor their interactions with students, both in and out of the classroom, to consistently engage students in meaningful ways to allow integration to happen within the students themselves (Badley, 2012). The focus could be on integrating the curriculum, allowing the professor to be intentional about designing the way learning occurs inside the classroom. This can lead to professors doing all the work unless they are careful to include room for students to integrate on their own (Badley, 2012). Integration can take place solely by the professor if students are not required to think about the connections between faith and learning on their own. Everyone on the campus can be involved in integration if the whole academic community is where integration takes place. This would include every staff member finding ways to bring faith into the environment on campus. Finally, the integration can take place in the community of faith by partnering with local churches. A university may focus on any one of these areas or include several of them in different ways. Badley described places that integration can occur but did not discuss best practices for faith-learning integration.

Many theories exist on the most effective way to integrate faith and learning into educational practices. Matthews and Gabriel (2001) wrote of three theories to integrate faith and learning. One theory is through institution building, when teachers create a collaborative, loving, and gentle environment for students so that they can explore faith connections, while the teachers transmit values by building commitments of faith through curriculum integration. Another theory is the deconstruction of dichotomies. Dichotomies exist in people's thinking in many areas of faith. Schools that use this theory of integration hope to build connections between the two issues that are perceived as dichotomous, specifically those issues that hinder a student's understanding

of God and the way God relates to his people. A third theory is integrating faith ideals into actions. Teachers focus on guiding students toward putting their faith into action in practical ways so it becomes an integral part of their daily lives.

In a meta-synthesis, Cosgrove (2015) analyzed some of the methods of faith and learning integration. These models included the worldview approach, the compatibility approach, the modeling approach, the balancing assumptions approach, and the no-integration approach (Cosgrove, 2015). Each approach has a specific purpose and usage, so expectations must be clearly determined before an approach can be implemented in a school setting. The school's administration should determine which faith and learning integration methodology to use based on the mission and purpose of the school so that every staff member is unified and working effectively toward the mission. The administration needs to take into consideration the faith of the teachers and staff because their specific theology directly impacts the way faith and learning integration takes place in the classroom.

MacCullough (2012) described three types of biblical worldview integration. MacCullough's parallel model assumed no connection existed between knowledge and faith, which is the most common dichotomy faced in religious education. MacCullough described the interpersonal and spontaneous model, which assumes that teachers at a Christian school will have a biblical worldview and will be intentional about integrating it into their teaching and interactions with students as opportunities present themselves. This model is dependent upon teachers having a strong faith life, a developed biblical worldview, and the initiative to find connections between the two on a frequent basis. The integrating core model is the most intentional and the most effective. This model puts a biblical worldview at the center of all other knowledge, the way the axle is at the center of a bike tire. The teacher must actively look for, find, and teach the figurative spokes that connect a biblical worldview with other knowledge. The integrating core model is more complex

than the IFL pedagogy because the integrating core model intentionally uses educational content as a method to answer existential questions from a biblical perspective.

Instead of writing a theoretical paper explaining biblical worldview integration, Turley (2009) presented specific examples that could be used in a Christian school. These examples were designed to be used in a traditional Christian school, so the pedagogy is slightly different than that of the biblical worldview integration explained by MacCullough (2012). In this model of integration, Turley focuses on relating history, literature, and the Bible. The connections made in the examples focus on connecting Paul, the Greco/Roman Empire, and classic literature from the same period. Instead of focusing on the integration of faith into content areas, this pedagogy focuses on integrating all content areas together. The idea is to connect the content so that students can make connections consistently and effectively in their own lives.

McCoy (2014) presented another example of integration within a curriculum through a case study. He provided an example of a complete physics curriculum at the university level with details of how the integration of faith and learning occurred in each course. The curriculum focused on several themes of integration with specific topics assigned to different courses. The topics and the application of the themes of integration became increasingly complex as the courses become more difficult so that physics students developed the ability to approach science from a Christian perspective upon graduation. He recommended setting goals with the other professors, establishing themes and topics, and providing as many sources as possible when setting up an integration curriculum across an education department.

Biblical worldview integration: Research. While some researchers focused on student perceptions, others focused on the perceptions of the teachers and professors. Cooper (1999) surveyed 225 professors to determine their attitudes toward faith and learning integration, especially regarding their rank and other demographic differences. In this survey study, all

interactions that professors had with their students were considered. Cooper used a Likert scale with 25 questions to measure the attitudes of the professors and with five additional questions to get demographic information. Cooper found that the more seniority a professor had at the religious university, the more positive his or her attitude was toward faith integration. He noted that integration came from a strong faith on the part of the professor and that all the professors valued building relationships with students to better develop integration within their field of study. Cooper found a generally positive attitude toward IFL.

Sherr et al. (2007) conducted a student perception survey that was broad in scope to determine the aspects of faith-learning integration that had the most impact on the students. Their study used an inductive approach by conducting 120 structured interviews to identify the repeated patterns that emerged from the responses. The students attended Christian universities in several different states from different areas of the United States and were intentionally chosen to represent as many degree programs as possible. This variety was built into the research so that the conclusions were not specific to one location but could be applied to many universities in many contexts. Several themes emerged from the interviews. First, students looked for professors who demonstrated an active faith life outside of the classroom and their faith was evident in their teaching. Professors who were passionate about pursuing a relationship with Christ and demonstrated that in their actions both in and out of the classroom and in their relationships with their students had a significant impact on their students. Conversely, students noticed that some professors talked a lot about faith in their lessons but were unwilling to develop those ideas in their relationships with their students when personal issues came up. This caused students to have a negative view of the faith that professors described because they seemed disingenuous. In addition to a strong personal faith and personal relationships, students wanted their professors to be highly qualified in their fields and able to smoothly integrate faith into their classroom environments and

into their lessons. The authors provided examples that included regularly asking for prayer requests and making their own requests known, encouraging discussions about controversial issues to discuss different perspectives, and identifying areas in the curriculum that makes them notice God. Using these concepts, Christian educators can work toward developing personally and professionally so that they can better integrate faith and learning.

Burton and Nwosu (2003) conducted student perception research through student surveys distributed to 46 university students in an educational preparation class. The surveys were to determine the way students perceived the integration of faith and learning in their teacher preparation course. Overall, the students valued the general atmosphere of the class, the way the professor interacted with the students, and the group activities in the course. Comments often focused on the moments students were engaged in the integration process through working with their classmates. Burton and Nwosu recognized that more research was needed in this area and outlined their proposal for future research as the conclusion of their paper.

Lawrence et al. (2005) conducted additional research on student perception; he gave 31 students an open-ended questionnaire to find out student perceptions of faith and learning integration taught in an instructional methods class. Even though each student could provide examples of integration, the examples were all based on teacher examples, not student examples. This showed that the teacher integrated his or her faith into classroom instruction but that the faith integration process was a passive experience for the students and, therefore, not as impactful as it could have been. The research concluded that the IFL would have a more significant impact if it were a student-centered activity. This would have allowed the professors to guide their students through the process of integration until the students were able to consistently do it on their own (Lawrence et al., 2005).

In addition to the research regarding the teacher and student perception of integrating faith and learning, researchers studied the methodology used in schools to implement a biblical worldview in the classroom. Sabri et al. (2008) twice interviewed 20 high-achieving first-year university students. The researchers interviewed the students in the beginning of their first term and at the end of their third term to determine the students' perceptions of their personal growth in faith after taking theology classes designed to integrate faith into their academic courses. The theology students perceived an increase in their faith when they were given time to make intentional connections between what they believed and the content they were learning. Time was built into the curriculum to allow students to relate the content to their lives and their faith without being assessed on it.

Craft, Foubert, and Lane (2011) conducted a phenomenological study on Christian professors. The authors conducted a case study of nine Christian professors who taught in a non-Christian environment to determine the impact of their faith on how they taught. The research revealed that the main goal of the professors was not to convert their students but to have the professors' faith be seen as a valuable and attractive choice, something that is not common in a university setting. Some of the professors frequently integrated Christian ideas into their lectures. The more spiritual the professor was outside of school, the more likely it was that faith integration took place in his or her classroom.

Headley (2003) recognized the need for more research on professional development practices and conducted survey research with administrators from 60 Christian schools affiliated with ACSI. Headley asked administrators questions about the professional development opportunities at their school, the frequency of staff turnover, and policies regarding professional development. Faculty handbooks were most used as an individual professional development tool. Group professional development tools focused on faculty development courses and biblical

worldview integration preparation. In-service activities at the school were the most common avenue for professional development. Administrators said they needed more time and money to provide more opportunities for teacher growth. Other common needs were found in classroom management and biblical worldview integration.

Horan (2017) conducted an ACSI focused research project that included a mixed-methods survey for teachers in ACSI schools. The goal of the research was to identify methods used in schools to foster spiritual formation in teenage students. There were two parts to the survey: (a) a quantitative portion that focused on what methods were used, and (b) a qualitative section that asked open-ended questions about the effectiveness of each method. Most of the teachers indicated quantitatively that their school had effective methods for spiritual formation. However, responses on the qualitative methods showed that was not always the case. The most effective method was building personal relationships with students, including one-on-one or small group mentoring sessions. Many teachers indicated that they knew this was the most effective method but that they did not do it because of a lack of training or lack of time. More opportunities for relationship building would have allowed these teachers the time to guide student faith development.

Religious education. In the Finnish education system, students are required to take moral or religious education courses during their final school year. Kavonius et al. (2015) interviewed 37 students between the ages of 15 and 16 at the completion of these classes to evaluate their perceptions of the system. The students could understand and articulate that their moral education was vital to understanding the diversity in worldviews that people have. Many commented that the worldview and religion courses helped them understand history and current events because they were better able to understand other people's perspectives. The students would have liked their

ethics or religious education classes to focus more on diversity and to have had the opportunity to discuss and apply the concepts with their peers.

Students in England are required to take religious education courses every year. These courses focus on learning about different religions, respecting each other's beliefs, and understanding people from different backgrounds. McKenna et al. (as cited in Valk et al., 2009) conducted the survey research at 16 schools in England. They surveyed 421 students ages 14 through 16 to learn about their worldviews, religious beliefs, attitudes toward religious education, and their thoughts about diversity and interacting with people who have different worldviews than their own. The survey data showed that students got their information about their personal religion primarily from their families, but religious education taught them how to respect and understand people who had different beliefs than their own. The surveys showed that the students learned how to further develop their personal beliefs and build morals. Students who identified with a personal religion were especially in favor of religious education classes because they found it valuable to learn about other religions and worldviews.

Morris, Smith, and Cejda (2010) focused their efforts on first-year students at a Christian university to determine if their spiritual satisfaction had an impact on student persistence as shown by their continued enrollment in school. The researchers gave the students two questionnaires during their freshman year and combined the data with reenrollment data from the university. Students who felt satisfied spiritually had a higher percentage of persistence, demonstrated by the fact that they stayed in the school until graduation, while those who felt unsatisfied spiritually were more likely to drop out or transfer. One cause could have been that a Christian university often draws students who are Christian and are trying to develop spiritually; therefore, the study concludes that Christian universities should ensure that they have adequate programs in place to help their students develop spiritually.

Understanding the motivation and the ideals of Christian teachers for working in a Christian school is important. Boele-de Bruin and de Muynck (2017) conducted a qualitative survey study in which they asked 107 Christian teachers four open-ended questions. The teachers all worked in Christian schools in the Netherlands. A common assumption is that Christian educators want to pass on their faith to their students because that aligns with a biblical worldview that emphasizes sharing the Gospel so everyone may know the love of God and be saved. The goal of the study was to find out how much faith was a part of a Christian teacher's ideal teaching situation. Some of the themes that stood out in the survey resulted in developing questions about the ideal goal of education focused on faith, knowledge, citizenship, biblical knowledge, social status, morality, and identity development. Self-development, unity with others, being a Christian, and having knowledge were the ideals that educators identified when asked what they wanted their students to learn from them. Overall, the results from the survey indicated that Christian educators wanted to teach their students about their faith and help them build a personal relationship with Christ.

Everyone's worldview can impact more than the way they learn but also their goals and vocation. Schutte (2008) conducted a research study of female Christian professors who worked in Christian universities. The study's purpose was to determine the aspects of worldview that impacted the work-life balance of the participants and the way their worldview impacted their choices of employment. Schutte conducted interviews to gain in-depth data for qualitative analysis. Most of the participants felt a calling to their work as a professor and saw it as their purpose or calling in life. They spoke of the struggle between work-life balance, especially for the women who had children and were married. Their responses showed their Christian worldview provided a sense of purpose and passion that allowed them to create strategies for balancing their responsibilities. Even when a struggle, having a Christian worldview provided guidance, even

though many of the women felt that they were not applying it to their lives as much as they could. The research concluded that when a person combines career and worldview work, a sense of purpose is built that produces determination and grit by providing a sense of purpose.

To determine the impact an educator's hermeneutics has on his or her pedagogical choices, Adams (1997) questioned 152 teachers. The researchers followed up the initial questionnaire with phone interviews with eight of the participants. The participants were Christian teachers who worked in a Christian elementary school. The goal of the research was to determine if the teachers' view of the Bible had an impact on the way they taught students how to read and how they perceived literacy (Adams, 1997). The two areas were often perceived as two separate endeavors, although some teachers used their theology to support their pedagogical choices. Most of them did not see the connection between their teaching methods and their theology. This indicated the IFL as described in the schools' mission statements was not being fulfilled.

Crick and Jelfs (2011) conducted an experimental study of spiritual development in an educational setting by designing and implementing a lesson that combined spiritual principles, self-reflection, and educational content. Year 8 and Year 9 students participated in the research by participation in pre- and post- questionnaires, interviews, and focus groups. The participants engaged in personalized inquiry projects that used meaningful places and objects as the focus of student learning. At the end of the project, participants demonstrated an increased understanding of themselves, including the way they learn and think. This lesson did not increase the spiritual development of the students, but Crick and Jelfs theorized that a similar kind of lesson could be used to help teachers influence spiritual development by engaging students in reflection and inquiry about spiritual matters.

Moral development and education. Education from a religious perspective is not the only kind that has an impact on the students' worldview. Van der Kooij et al. (2015) conducted

theoretical research based on the moral education system in the Netherlands to consider issues surrounding moral education and analyzing pedagogies to determine if students' worldviews were impacted. Van der Kooij et al. determined that moral education tried to change a student's worldview because it held underlying beliefs that some things were right and others were wrong and should be passed on to the students. They established this through examples of typical curriculum in moral education in the Netherlands. Within moral education, an assumption existed about the nature of humanity that was taught to students; therefore, moral education impacted or attempted to alter their worldviews.

The Hong Kong government used this philosophy as a reason to require moral education in its schools as the result of an increase in juvenile delinquency. Cheng (2004) used results from a questionnaire given in Hong Kong to research the impact of mandated moral education. Teachers were to focus on students' moral and intellectual development by integrating moral education consistently into the content and relating it to the students' lives. This pedagogy was often the reason many non-religious parents sent their children to religious schools to ensure their children were taught good morals and that those morals were reinforced consistently.

DeVries et al. (2000) explored the theory of moral development was explored in their theory of early childhood education and moral development. Their theory is based on the work of Kohlberg and Hersh (1977), Piaget (1959), and other relevant researchers and examined educational practices that promote moral development. Autonomy in moral reasoning is developed when children can reflect on rules and moral choices, connect through shared experiences, and use negotiation strategies in increasingly complex ways. The authors cited examples of classroom interactions that promoted moral development through discussion and autonomy given to the students. As the teacher guided self-regulation, development continued, and the classroom became a place where children could grow into morally autonomous adults.

Faith development. Benson and Roehlkepartain (2008) wrote a literature review about the theories of spiritual development in young adults. They did not write the review from any specific religious perspective but focused on the theory that everyone develops spirituality and that it is an important part of who we are as human beings. The research on spiritual development is often from a Western, most often a Christian, perspective. Benson and Roehlkepartain pointed out the lack of research from multi-cultural or multi-religious perspectives. Their research focused on how spirituality is developed from childhood into young adulthood. Spirituality often is closely connected with the traditions of a culture and development tied to the way those traditions are passed on from one generation to the next. Moreover, a primarily individual aspect exists as the child or young adult grows and develops emotionally. The processes include a developing awareness of self, others, and the divine; connecting with others; and building a community. These processes are evident in religion, cultural communities, and the way spiritual traditions bring people together. Another process is living out one's beliefs. Benson and Roehlkepartain had the goal to further the understanding of spiritual development from a multi-cultural perspective by conducting longitudinal research in multiple nations worldwide. This research is in progress and has not been published.

Instead of focusing on a biblical worldview, Fowler and Dell (as cited in Roehlkepartain et al., 2006) focused their research on the way faith and identity develop in both children and adults. They conducted 359 interviews and worked closely with Kohlberg using his theory of identity development. The stages of faith development they discovered included primal faith found in infants, intuitive-projective faith from toddlerhood through early childhood, mythic-literature faith from middle childhood to early adolescence, and synthetic-conventional faith from adolescence to adulthood. Later stages of faith that may or may not be reached are individuative-reflective faith, conjunctive faith, and universalizing faith (Fowler & Dell, as cited in Roehlkepartain et al., 2006).

Most middle school students who participated in my study were adolescents who made the change from a mythic-literature faith based on stories told by parents and teachers to synthetic-conventional faith, which is a personal choice influenced by the important people in their lives but not blindly followed (Fowler & Dell, as cited in Roehlkepartain et al., 2006). Most middle school students are in this stage thus making it a crucial time in their worldview and faith development.

Radecke (2007) based his qualitative research about faith development on the work of Fowler and Dell (as cited in Roehlkepartain et al., 2006). The purpose of the research was to identify the changes that took place in 38 university students after they participated in a service trip to South America. Radecke analyzed papers and journals from the participating students and used the NVivo program to code and group the data. Some of the common themes that students expressed included the way strangers accepted them and loved them, the way that faith was integrated into the South American culture, and the impact the experience had on their Christian faith. The students discussed the new experiences they encountered that impacted their faith. One was the different ways Jesus was represented in art and the contrasting views it held for those raised in a Caucasian church in America. Other students commented on the perplexing trend that the poorest people seemed to have the most joy. This idea goes against what is taught in American culture, so it often confused the students and caused them to reflect on their own lives and their personal faith. Radecke concluded that the trip helped students grow in their faith and perception of the world because of how different the experience was for the students.

Holmes (2016) used Fowler and Dell's (as cited in Roehlkepartain et al., 2006) theory of faith development to explain research that was conducted through observations and interviews with children from Christian homes. Sixty-one children participated in the study from ages 3 to 13. The purpose of the research was not to add to the body of knowledge about the development of faith in children but to test a new tool that can be used to observe and analyze a child's faith.

The researchers observed the children in their homes during 45-minute play-interviews. These interviews were child-directed in that a variety of options were presented to the participating child through toys or activities. When the child chose one of the toys, the interviewer guided him or her through an activity that helped the researcher identify the faith of the child in different facets of his or her faith. The observation method was successful in allowing Holmes to identify the faith of the participants, evidenced by the completed parent surveys to ensure reliability and validity.

Thailand. Senasu and Singhapakdi (2017) conducted survey research in Thailand to determine the causality of happiness for Thai people. They used a telephone questionnaire with 1,004 Thai people from all Thailand provinces. One of the main findings was that Buddhism is extremely prevalent, and its teachings greatly impact the people's happiness. Religious people were happier than others, but their faith was not the cause of their happiness. Those who were the happiest were the Thai people who were satisfied with their family, health, and the environment they lived in. Family was the most important factor for happiness.

Singsuriya et al. (2014) also conducted research in Thailand but focused on the intersection of Western teaching methods and Thai ideas in moral education. This research was a document analysis of teaching materials in Thai schools and on Thai educational laws. The analysis showed that Thai schools focus on obedience and conformity, while Western education focuses on promoting critical-thinking and independence. The concepts of obedience and conformity are linked to Buddhism and its values, which are also outlined in educational laws. Buddhism plays a significant part in the role of moral education that is legally required to be in content areas at every level in Thailand. One may conclude that Buddhism is an important aspect of Thai culture outside of the classroom. In Thailand, moral education is required and is commonly integrated into all subjects. In Thailand, moral education is taught usually from a Buddhist perspective, but freedom of religion does exist.

Thai culture and its impact on the students at international schools in Thailand was the subject of research conducted by Deveney (2005). A mixed-methods research study was conducted at an international school in Thailand, using a combination of interviews, observations, 29 questionnaires, written evidence, and five preconception requests. Teachers, Thai staff, and Thai students participated in one or more study areas. Several aspects of Thai culture were noted as differences that impacted student learning. Thai students' behaviors differ from Western students at the same school by being more passive and playing it safe instead of risk taking, which is sometimes associated with a lack of motivation. Participating teachers and Thai staff described Thai students as respectful, nonconfrontational, and tolerant. Through interviews the Thai staff members discussed the differences between Thai students who attended international schools from early childhood and those who transferred after attending a Thai school. Students who transferred carry more of the passive Thai traits that are expected in a Thai classroom, such as staying quiet in class and not losing face. These traits are often discouraged in Western-style international school settings and can cause a disconnect between the teachers and students. Deveney concludes that international schoolteachers believe these cultural differences impact learning and that educators in this setting should find ways to create classroom environments inclusive of all cultures.

McDevitt, Hess, Leesatayakun, Sheehand, and Kaufeld (2012) conducted further educational research at an international school in Bangkok. The researchers sought to determine the importance Thai students placed on possible career influences. The researchers interviewed 141 students from Grade 4 through Grade 12; 139 of those were Thai. Student participants were to list three careers they would like to have as an adult, draw a picture doing the career they most want to be, and answer questions about careers. The participants listed many different careers and many reasons for choosing those careers. The students placed importance on personal interest, personality, ability to get a job in the field, and salary. The students valued knowing multiple

languages and having technology skills and experience in multi-cultural settings. The researchers recommended that Western teachers of Thai students encourage their students to consider many different careers, not limited to those that fit the stereotypes or those laid out by their parents.

Hayden's research (2010) focused on the growing popularity of international schools and wrote about the history of international schools from a global perspective and the development of the intended population and curricular focus. She presented the modern perspective of international schools. According to Hayden, four types of international schools exist. One enrolls expat students who are from the same home country. Another teaches students from many nationalities. The third uses the term international as a philosophy rather than a description of their student or teacher population. The fourth type is a school with students from many nations who enroll primarily to learn a common language and build an inclusive international culture among the students. This type of school most closely describes the participating school in my research. Hayden wrote of the rising trend of international schools in Thailand and other Asian nations. Hayden's research found the primary reason Thai parents wanted to send their children to an international school was to provide their children the opportunities to become fluent in English, to receive a higher-quality education, to increase their child's ability to interact in a multi-cultural world, and to have an advantage when applying for competitive universities and jobs. For these reasons, many Thais choose to send their children to the best international schools whenever possible.

Komin (1990) conducted an extensive 10-year study to identify Thai culture and values, specifically as related to work. Komin used two questionnaires to gather data, one with a population of 2,469 and the other with 2,149. Komin administered these surveys three years apart and both included people from several occupations, geographical regions, and socio-economic levels. Komin identified nine core values as significant in Thai culture. The most significant value

was ego orientation, which describes the importance Thai people place on saving face, being non-confrontational, and the Thai attitude of *kraeng gai*, which is the Thai phrase describing the attitude of ensuring that no one is uncomfortable or inconvenienced in any way. The second most important value in Thai work culture is “grateful relationship orientation,” (Komin, 1990, p. 691), which is described as the need to always reciprocate another’s kindness because of the gratitude felt. Valued next is the ability to have interpersonal relationships focused on others, ideally by demonstrating humility, kindness, and a non-confrontational attitude. Another core value is the ability to be flexible and adjust the ideas of right and wrong based on the situation. The fifth core Thai value identified by Komin is the strong relationship between the spiritual and the physical worlds, as is demonstrated by the Thai belief that karma and supernatural experiences interfere with daily life. The value of education in Thailand is based on the status or degree that an individual earns, to get something else, and is not based on the learning itself. Another value in Thai culture is community-based collaboration instead of independence that is valued in most western cultures. Thai people also place high value on keeping interactions with people light and fun, so that no one is offended. Finally, Thai people value achievement; however, this was valued least and was the least consistent among Thais from different backgrounds in data.

Hilderbrand (2014) described the differences in the way morals are taught in several religious schools in Thailand. The students were given a quantitative survey in each of the participating schools to measure the morality of students at Buddhist, Christian, Islamic, and secular schools in Thailand. Hilderbrand analyzed the results and looked for areas where the morals of students from one religious school were significantly different from those of another religion. Most of the results were statistically similar, but two items stood out. Students who attended a Buddhist school were more likely to steal from others but indicated more compassion than students from other religious schools (Hilderbrand, 2014). Students from the Islamic school

had the greatest number of differences. They were more likely to smoke, use drugs, and kill animals than any other religious school, and they were more concerned with obeying the law than others. Other results varied slightly but were not statistically significant, indicating that in Thailand similar morals are being learned by students in all types of school (Hilderbrand, 2014).

Religious education dissertations. The IFL can happen at any age level. Jang (2011) conducted research in an elementary school to determine how proficient teachers were at integration, where their greatest struggles lie, and what factors make a difference in their effectiveness. She conducted her quantitative survey research at ACSI schools because it is assumed that teachers at these schools would use the biblical worldview integration as is expected of all ACSI schools. The study participants were 220 teachers from the mid-American and southeast regions of the United States. The survey was self-reporting, meaning the teachers reflected on their own performance level to determine if they were integrating effectively and what would help them perform better in the future. Statistically, it did not matter what kind of college or education background a teacher had; the only influence that increases their ability to conduct biblical worldview integration was if they had taken a theology or religion class. The greatest positive impact was for those educators who could attend integration training. Consequently, Jang concluded that Christian school administrators should provide professional development opportunities in theology, religion, and training to the integration of faith into the classroom.

Lewis (2015) attempted to determine how prepared Christian educators are to teach from a Christian perspective. He conducted a single instrumental case study of nine teachers in one Christian high school using document analysis, classroom observations, surveys, and individual interviews to determine if a teacher had any training in Christian education, had a strong personal faith life, and if the teacher wanted to help his or her students grow in their faith. The research showed that teachers who had an active personal faith-life were the most effective at teaching in a

spiritually transformative way because the instructor's personal faith life spread into their teaching as a consistent part of their lives. Lewis noted that often teachers were asked about their faith life when they were newly hired but that the administration did not follow up to ensure the teachers' spiritual growth was strong. He commented on the lack of training on faith and learning integration and pointed out that all the participating teachers knew that they should be integrating their faith into their classroom but they were unsure how to do that effectively. He concluded that administrators who wanted learning and faith to be effectively integrated should encourage teachers to grow in their spirituality and facilitate training and support to provide necessary knowledge and tools for integration.

Eckel (2009) conducted quantitative research about the impact of attending a Christian university has on an educator's ability to teach using faith-learning integration. The research participants included Christian educators who taught at schools whose mission it was to teach from a biblical worldview. The results of the surveys determined that teachers who graduated from Christian universities were better equipped and more knowledgeable about faith-learning integration. However, a 48.6% variance existed concerning the administrator support. The amount of integration was statistically more significant when administrators specifically supported and encouraged their teachers in faith learning, even if no additional training had occurred.

Instead of testing the worldview of students, Evans (2015) used the Worldview Assessment Instrument as an online survey to determine the worldview of teachers at ACSI accredited schools and some of the relevant factors in determining that worldview. Evans found that teachers with an ACSI teaching certification had a higher-than-average biblical worldview and a strong commitment to a biblical understanding of salvation. The research showed the level of education of the teacher, what kind of undergraduate school the teacher attended, and the amount of previous teaching experience, unless it was at a Christian school, had no significant impact on worldview.

Holloway (2014) focused on a review of models and methodologies for faith and learning integration and on the impact of people's faith on their abilities to make connections between the Bible and content areas. This research was included because he found three ways to categorize the pedagogical methods that educators used to integrate faith and knowledge. Holloway referred to these categories as models of integration. One category was the conflict model, which included all methods in which faith and knowledge are dichotomous and cannot be combined. Conflict model is common in Christian schools that have a Bible class but do not refer to religion or faith in other classes; this is not a true method of integration. The second category that schools use is the compatibility model, in which everything that is true comes from God; therefore, no conflict can exist between content and faith. Conflicts between faith and knowledge arise because we do not fully understand. Biblical worldview integration falls under this category. The third category includes the theologies in which connections between faith and learning exist but humans are unable to find the connections because of our fallen nature and inability to understand the supernatural. These would fall into the paradox model category.

In his doctoral dissertation, Peterson (2017) focused on international school students in Korea. His research examined student perceptions of the personal impact of the Bible curriculum. Although not a peer-reviewed source, this research setting closely matches the research setting for this dissertation, as both were in international Asian schools with students with several different religious backgrounds. The Korean international school students participated in biblical integration focus groups, weekly journal responses, and individual interviews. Students who began the Bible course as Christians entered the course with a negative perception but finished the course with a more personal ownership of their faith than when they began. Non-Christian students began to take a personal interest in their beliefs and learned how to form their own ideas

about faith instead of relying on the faith of their parents. The research addresses the importance of students being active participants in the integration of their faith and what they are learning.

Rutledge (2013) used the PEERS worldview test when conducting research for his dissertation. He gave the worldview test to 91 students enrolled in a Christian high school to determine if their attendance in church-related activities made a difference on their worldviews when compared with their non-attending classmates. This correlation research focused on attendance in youth groups, weekly worship services, Sunday school classes, and their parents' attendance to a weekly worship service (Rutledge, 2013). Although a slight positive correlation occurred, no statistically significant increase existed toward a biblical worldview for attendance in any church-related event.

Barke (2014) conducted research on middle and high school boys in a charter school co-op to determine their change in worldview after taking a biblical worldview course. They were given the PEERS worldview test and several of Barna's (2003) worldview questions as a pre- and post-test exercise. During the course, the students learned about different worldview topics and the biblical way to view those topics. They practiced applying a biblical worldview to their lives by applying a biblical perspective to controversial current events issues. The measures significantly increased in all eight students who participated in the worldview course. They demonstrated that their worldviews had a statistically significant increase toward a biblical worldview and scored higher results than those reported by the Nehemiah Institute when compared to other schools that used the PEERS worldview test.

Lanier's (2010) research was similar to Rutledge's (2013) but had contrasting results. Pre- and post-tests were given to church members aged 18 through 32 to determine if a biblical worldview course changed their beliefs and attitudes. The worldview course was 10 weeks during which the participants studied aspects of a biblical worldview for seven weeks and had a peer-led

discussion during the last three sessions. The tests showed a significant increase toward a biblical worldview with an even greater change for those who attended more frequently. The change shown in the worldview test was indicated by the way the participants' actions changed. They began to attend church more regularly, had a more positive attitude, and spent more of their time serving others. The difference in the research by Rutledge and Lanier suggested that the content of the church activity makes the difference, not simply if a person attends.

In 2012, Schultz conducted research on the study of a biblical worldview's impact by creating an instrument used to measure a biblical worldview as defined by Sire (2004). He created the instrument for use with Christian middle and high school students, a similar age group as this research. This instrument was tested for reliability and relevance, scoring highly in both areas. Schultz's dissertation informed later research that Schultz and Swezey (2013) conducted on biblical worldview, using Sire's definition as their focal point.

Methodological Approaches to Worldview Studies

Researchers have used many methods to study worldview, the integration of faith and learning in schools, and the pedagogy of integration. Some of these studies are qualitative in nature, such as transcendental phenomenologies and interviews. Others, such as questionnaires and surveys, are quantitative in nature. A few studies use mixed methods to capture the best aspects of both methods. To analyze the different research methods most effectively, dissertation research has been included on these topics as they support the findings shown in other literature and because they are similar to this research study.

Lewis (2015) and Tinkey (2010) used case studies to analyze biblical worldview in education. Lewis used a case study because he wanted to determine how prepared teachers were to teach from a biblical worldview. Tinkey researched the student perception of biblical worldview integration in a university level course, so a case study was appropriate. Both researchers focused

on specific classes or schools and made effective case studies. Case studies are a useful methodology when studying the variety of pedagogical tools used in a classroom. Craft et al. (2011) used a transcendental phenomenology, which is similar to a case study. They studied the way Christian faculty members integrate their faith in non-Christian settings. This method works well on a small scale to collect more details but has limited transferability on a large scale.

Interviews are another common tool used for qualitative studies. Peterson (2017) used interviews to test student perception, as did Fowler and Bell (as cited in Roehlkepartain et al., 2006) to determine the developmental stages of faith. Interviews allow the researcher to ask clarifying questions to get more details on pertinent information. Interviews can be biased when the interviewer has a relationship with the interviewees, if there is bias in the selection of who is interviewed, or if there is bias in the way questions are asked.

A questionnaire or survey is the most common quantitative method used when researching faith, worldview, and integration methods in schools. Jang (2011), Eckel (2009), Lawrence et al. (2005), Cooper (1999), and Cheng (2004) used questionnaires to determine the perceived preparedness and effectiveness of the integration of faith and learning. Hilderbrand (2014) used surveys in Thailand to measure the impact of moral education in different religious schools, and Senasu and Singhapakdi (2017) used surveys to measure causes of happiness for Thai people. Questionnaires and surveys were the most common and easiest quantitative tool for analysis. This method allows for widespread research so that hundreds of people can be included; researchers have difficulty conducting that scale of research with an interview or a case study. The disadvantage to using surveys is that they provide limited data and the researcher cannot ask follow-up questions. Also, some people will not answer honestly. A researcher must consider those whose participation would be beneficial but who will not complete the survey due to time constraints, lack of interest, or lack of understanding.

Rutledge (2013) and Schultz (2012) also used quantitative methods in their research.

Rutledge used the PEERS Worldview Test to test the correlation between participation in church activities and a biblical worldview of students who attend a Christian school. The worldview test provided information, but the survey did not address all aspects of the research problem. Students were asked about their attendance at a variety of church events but did not address any of the activities they participated in or how engaged they were in the events. These questions could have helped further the correlation but that could not be answered because of a lack of qualitative feedback. Schultz conducted a reliability study for a new instrument created to test a person's worldview using Sire's (2004) definition of worldview.

Mixed-methods research is used for an in-depth examination of a problem. Barke (2014) used the mixed methods approach when studying the impact of biblical worldview integration in the classroom. He used the PEERS worldview test and the Barna (2003) worldview questions in a pre- and post-test to determine the impact of a worldview course. Lanier (2010) used a pre- and post-test method using a worldview test to determine the change of worldview that occurred after students took a specific course. Lanier conducted interviews with the students to get additional information that would benefit the research.

Synthesis of Research Findings

Thailand. Education in Thailand requires the integration of moral education at every age level. Education comes from a Buddhist perspective; therefore, moral education is commonly taught from that perspective (Hilderbrand, 2014; Singsuriya et al., 2014). However, morals can be considered from other faiths. The public policy in Thailand is written from a Buddhist perspective. However, within the country residents have the freedom to practice any religion, and the policy states that a student's faith should be respected (Hilderbrand, 2014). Big cities in Thailand have faith-based schools from many religions, including Christianity. Many parents send their children

to a faith-based school to expose them to an education that focuses on morality and serving others (Hilderbrand, 2014). Moral education is highly valued in the Thai Buddhist community because it focuses on earning merit and good karma.

The moral education in Thai public schools does not expressly state that the principles are Buddhist. However, they want to mold Thai citizens into good Buddhists (Singsuriya et al., 2014; Van der Kooij et al., 2015). A country like Thailand has many reasons to institute moral education. Moral education in any form aims to shape a student's worldview by shaping their ideas of right and wrong (Van der Kooij et al., 2015). Education in this vein supports families and communities where they fail to teach about desired values and morals (Cheng, 2004). In Thailand, the values primarily come from a Buddhist faith and have strong ideas of civic duty, respect, and service (Hilderbrand, 2014; Singsuriya et al., 2014). Education in Thailand began as a way for Buddhist monks to teach boys a few basic skills and Buddhist values (Hilderbrand, 2014). This continues to be an expected result of public education in Thailand.

Development. Many different theories of education address an individual's development of identity, morals, and faith. Baumann (2011) thought that Vygotsky's theory of development worked the best. Vygotsky (1962) theorized that learning and development are social constructs and growth happens as the result of social interactions and community building. Erikson's (1950) theory of psychological development included a few social interactions as a part of development but did not rely upon them. His theory stated that identity development changed the most during adolescence because this is the period when most people try to figure out their place in society. This is significant as this research studied the change in worldview of middle school students. Worldview is connected to identity and, therefore, is connected to development in many ways. Duerden, Widmer, Taniguchi, and McCoy (2009) used Erikson's theory of psychological development to build on this idea. Researchers can use Piaget's (1959) theory as a theory for

individual development and transformation. He discussed the importance of adolescence while focusing on the individual instead of the society. Peterson (2017) and Baumann used this theory as the basis for their research as they understood that the presence of an internal conflict was important before transformation could take place. Vygotsky and Erikson had similar ideas in the view that some sort of a conflict or pressure had to happen for growth to occur.

Worldviews develop when ideas are authentic and made personal and applicable to an individual's life. Fowler and Dell (as cited in Roehlkepartain et al., 2006) connected their theory of faith development to the theories of Erikson (1950), Piaget (1959), and Kohlberg and Hersh (1977). Adolescence is considered an essential time in development because a person's identity changes continually during this period. These theories state that significant development of people's identity occurs in adolescence as this is the time when they are figuring out who they are and how they relate to those around them. Each theory is clear about the importance of adolescence on how an individual develops.

Worldview. A worldview has simple and complex pieces. Most researchers agree on basic aspects of worldview. The most common aspect of a worldview is that it is a framework from which a person perceives reality and makes sense of the world (Evans, 2015; Kanitz, 2005; Kavonius et al., 2015; Van der Kooij et al., 2015). Another aspect is that worldview impacts a peoples' actions, not just their thoughts or their speech (Esqueda, 2014; Sire, 2004). Some research focused on the fact that a worldview should answer important life questions, such as the meaning of life (Baumann, 2011). The most commonly used definition of worldview in research today is that of Sire in 2004 (MacCullough, 2012; Schultz, 2012; Schultz & Swezey, 2013; Sire, 2004). This definition of worldview was chosen, partly because it was the most commonly used in research on biblical worldview integration but also because it encompassed all the aspects of a worldview held in other definitions.

Critique of Previous Research

The research on biblical worldview integration is limited and leaves many gaps. Research conducted on the development of morals, faith, and personality point to the importance of early adolescence (Erikson, 1950; Fowler & Dell, as cited in Roehlkepartain et al., 2006; Kohlberg & Hersh, 1977; Piaget, 1959; Vygotsky, 1962). However, most research about the IFL or biblical worldview integration has been done at the university level (Cooper, 1999; Craft et al., 2011; Lanier, 2010; Lawrence et al., 2005; Morris et al., 2010; Sabri et al., 2008). Some research was conducted at the high school level (Barke, 2014; Peterson, 2017; Rutledge, 2013; Schultz, 2012). The lack of research conducted on students who went through critical developmental years in middle school means that the research is being conducted on students whose worldview and faith ideas are mostly established. Early adolescents should be studied so that the kind of impact that biblical worldview integration has on their faith development in the long term can be determined.

Another critical area of research missing is research on the effectiveness of integration techniques. Researchers have written on the importance of the topic based on theories (Bailey, 2012; Cosgrove, 2015; Esqueda, 2014; Holloway, 2014; MacCullough, 2012; Matthews & Gabriel, 2001). Other research agreed that the effectiveness of integration techniques is important but focused on the different methods (Adams, 1997; Cooper, 1999; Craft et al., 2011; Lawrence et al., 2005; Morris et al., 2010; Peterson, 2017; Sabri et al., 2008). Even though these researchers agreed that biblical worldview integration was important, none of them conducted research that proved its impact. Without proof that change occurred in the students' mindsets, researchers cannot definitively conclude that any impact occurred with the students or that it is an important component of their religious education. Several doctoral researchers tried to fill this gap at the age levels of university students and young adults (Lanier, 2010) and high school (Rutledge, 2013). The research detailed in this dissertation helps fill the gap in both areas through research on the

effectiveness of biblical worldview integration on early adolescents at a Christian international school in Thailand.

Summary

This literature review focused on several key topics that impacted the study. Within the conceptual framework, definitions of worldview and discussions of the way morals and faith develop were explored. A review was conducted of the relevant literature and focused on biblical worldview, biblical worldview integration, moral education, and Thailand. This was followed with a review of the methodological issues in the literature and a synthesis of the findings from the research. The literature review concluded with a critique of previous research on biblical worldview integration and focused on the gaps in research in key areas.

In this chapter, several important themes emerged. Morality is an important concept to the Thai people, causing the integration of moral education to be mandated by law. Both moral education and biblical worldview integration education philosophies are designed to change the worldview of the student and to impact the students in a way that will help them make better moral decisions and actions. Therefore, biblical worldview integration is a form of moral education. Individuals have biblical worldviews when they perceive the world around them through the truths described in the Bible and when their decisions and actions follow these perceptions. Middle school and early adolescence is a crucial time in an individual's development of worldview. Middle school students in Thailand receive moral education at a critical developmental stage. Therefore, surrounding them with Christian teachers and placing them in a Christian culture will impact their worldview as they attempt to accommodate conflicting perspectives and worldviews.

Chapter 3 examines the methodology used in this study. The purpose of the study is discussed and linked to the research questions. The research design is presented in detail, including both the qualitative and quantitative research methods that were used. The core aspects

of this are the survey instrument used with the participating students and the interview instruments used with the participating teachers and parents. The instruments used are closely tied to the way data was collected and analyzed so the research questions could be answered appropriately. Details are given that correspond to the target population at the research site, and sampling methods that were used, threats to validity, limitations, and any ethical issues that were considered. Chapter 3 gives a complete overview of the methods used in the research.

Chapter 3: Methodology

Introduction

Christian educators who choose to work in Christian schools often want to help their students better understand the Christian worldview. One way to strengthen this worldview in students is through the pedagogical method of biblical worldview integration. Biblical worldview integration involves teaching every content area from the perspective God is truth, the Bible is inerrant, and all knowledge can be linked to the Bible (MacCullough, 2012). An effective use of this pedagogy requires an understanding of a biblical worldview. All individuals have a worldview, whether they can identify it or not, which determines the orientation of their heart, mind, and actions (Sire, 2004). When individuals' hearts, minds, and actions align with what the Bible teaches, they possess a biblical worldview (Barna, 2003). The purpose of this study was to determine whether the use of biblical worldview integration pedagogy with Thai Buddhist early adolescent students at a Christian international school in Thailand brought the students' worldview into alignment with that of the Bible.

Many Christian schools implement biblical worldview integration, but the researcher had limited success finding instruments for measuring effectiveness in this pedagogy. The few instruments discovered were surveys exploring the methods and readiness of teachers to integrate this worldview (Eckel, 2009; Jang, 2011; Lewis, 2015), a worldview survey for educators (Evans, 2015), the PEERS worldview test for students (Barke, 2014; Lanier, 2010; Rutledge, 2013), and a self-created worldview survey instrument (Schultz, 2012). The measurement of the impact of biblical worldview integration would enable Christian schools to evaluate the curriculum within their schools and refine their methods to achieve greater efficacy. It is particularly important to determine whether biblical worldview integration is being effectively implemented at the middle school level because of the significant moral and spiritual changes that naturally occur during this

stage of a person's life (Benson & Roehlkepartain, 2008; Fowler & Dell, as cited in Roehlkepartain et al., 2006). Adolescence is an important developmental period, both morally and spiritually. During this stage of life, most children shift from moral thinking based on the perception of how others will judge them to thinking based on what they perceive will be the best for themselves and others (Kohlberg & Hersh, 1977). Faith develops in a similar way during adolescence, as children begin to realize unfair situations could take place and situations are not as simple as they seemed while growing up (Fowler & Dell, as cited in Roehlkepartain et al., 2006). Children's faith tends to shift as they become more aware of how others see them and become more concerned with the perspectives and opinions of their peers than of anyone else (Fowler & Dell, as cited in Roehlkepartain et al., 2006). Consistent instruction from a biblical worldview during these crucial adolescent changes in the development of morals and faith can have a significant impact on the way an adolescent develops his or her worldview. This study is important because the researcher found no peer reviewed research on the impact of the IFL or of biblical worldview integration pedagogies with adolescent students. The researcher intended this study would determine the effectiveness of biblical worldview integration with early adolescents as taught in a Christian international school in Thailand.

In this mixed-methods study on the effectiveness of biblical worldview integration with adolescent students, Sire's (2004) definition of worldview was used to ask questions focused on the way individuals emotionally process information, how their mind perceives the information, and how they act on the information. The results of the survey were analyzed by comparing the students' answers to the most biblical choice for each question to determine how close or far a student's worldview is from a biblical worldview. Using pre- and post-surveys, this researcher could determine the degree, if any, to which a student's worldview aligned more closely with a biblical worldview after one semester in a Christian international school, which uses a biblical

worldview integration pedagogy. In addition to these surveys, interviews were conducted with 10 teachers and a select group of eight parents to gather perceptions about the way the pedagogy was implemented at the research site and its impact on the students and their families. Using both qualitative and quantitative data allowed the triangulation of the data, which provided opportunities for agreement in the way biblical worldview integration has an impact on these Thai students.

This chapter outlines the methodology used in this research study. First, the purpose of the study, the research questions, and the hypotheses have been described. Second, a detailed description of the research design and methodology of the research has been provided. Third, the method for collecting and analyzing data has been explained. Subsequently, the limitations, validity, and ethical issues were discussed, followed by the expected findings of the research.

Purpose of the Study

Christian schools implement pedagogies that integrate faith and learning objectives in different ways—some do so by teaching with a biblical worldview (Cosgrove, 2015). This research determined the effectiveness of the pedagogy of biblical worldview integration through the analysis of a pre- and post-instructional survey of adolescent students' worldviews and teacher interviews in a Christian international school in Thailand. A Christian worldview shaped the survey used in this study. Worldviews are expressed through decisions made through emotions and spiritual beliefs, propositional knowledge, and behaviors (Sire, 2004). The researcher explored the worldview of students in these three areas and focused on how closely their answers aligned with the Bible to identify a biblical worldview (Barna, 2003). By analyzing the pre- and post-surveys, the results determined if students' worldviews became more aligned with a biblical worldview after six months of attending a Christian international school.

Research Questions

This research study investigated three questions:

RQ1: What is the impact of biblical worldview integration on the worldview of Thai Buddhist middle school students at a Christian international school in Thailand?

RQ2: What is the difference in the impact of biblical worldview integration at this school for Thai Buddhist students and for those from different religious and ethnic backgrounds?

RQ3: What is the impact of biblical worldview integration in each of the three areas of a worldview: emotional/spiritual, propositional knowledge, and behavioral?

Research Design

A mixed-method design was used to address the three research questions. The quantitative aspect of the research used a pre- and post-survey completed by adolescent students at the beginning and end of the second semester of the 2018–2019 school year in an international school in Thailand. Surveys provide data about habits, values, emotions, perceptions, backgrounds, and demographics (Fink, 2017). A worldview impacts an individual's values, habits, emotions, and perceptions because it is the lens through which a student perceives the world; therefore, the survey design was the best fit for research relating to worldviews (Sire, 2004). Furthermore, other research conducted on worldviews used a survey method for collecting data to determine the worldviews of participants (Barke, 2014; Evans, 2015; Fyock, 2008; Lanier, 2010; Neshama-Bannister, 2016; Rutledge, 2013; Schultz, 2012).

The qualitative aspect of this research study was based on the individual interviews conducted with teachers and parents. Interviews provided data about experiences, perceptions, and meaning (King & Horrocks, 2010). Hence, interviewing teachers provided the opportunity to ask questions regarding the manner in which they implemented biblical worldview integration. A

select group of parents were interviewed to gain insight into the reason Thai Buddhist parents send their children to a Christian school and the perceived impact the school had on the lives of the children and their families from various ethnic and religious backgrounds. Together, the two methods provided a more comprehensive picture of biblical worldview integration and its effectiveness at the research site.

A pre- and post-survey design was utilized to determine the impact of biblical worldview integration; this design provided the opportunity to analyze the changes occurring over time. The first worldview survey, conducted at the beginning of the second semester, provided a snapshot of the students' current worldviews. The same students were given the worldview survey when the academic year concluded, allowing the results to be compared and to determine how much of a change, if any, took place. Lanier (2010) used a similar design in his research on the impact of a ten-week worldview course, as did Barke (2014) on a two-semester worldview course. Fyock (2008) used a pre- and post-test design with a worldview survey while conducting research on the impact of the teachers' worldviews on the worldviews of their high school students. These studies were conducted to determine the effectiveness of a course designed to teach students about worldview directly and were completed by Christians who opted to take the course (Barke, 2014; Fyock, 2008; Lanier, 2010). The pre- and post-survey designs of the mentioned studies are similar to this research study, but the pedagogy and population being studied were significantly different and made the conducted study unique.

A survey design also was chosen for practical reasons. A survey allows for quick and easy collection of a sizeable amount of data (Fink, 2017). In this study, the survey allowed the inclusion of every middle school student instead of a smaller sample size. Surveys also allow students to remain anonymous, which may help them feel more comfortable answering questions honestly. This is especially true when an outside relationship between the researcher and the

participants may cause bias, as in this case between teacher and student. If the students are questioned in an interview, they may feel uncomfortable giving answers they do not want their parents to know or would negatively impact the way the researcher views them as students. In a setting where most students are attending a Christian school but come from non-Christian families and live in a non-Christian country, students know the teachers and parents expect certain answers. Therefore, they may feel uncomfortable answering them honestly. A survey allows for anonymity, reduces bias, and protects the emotional wellbeing of the students. For these reasons, a worldview survey was used and given to the same student participants at the beginning and conclusion of the second semester.

The instrument used in this research was a self-created and piloted worldview survey (see Appendix C). The questions were created by referring to Sire's (2004) definition of worldview; therefore, each question related to one of the three aspects of worldview (emotional/spiritual, propositional knowledge, behavioral). The survey included 64 questions, five of which were for identification and to avoid duplication. Of the remaining 59 questions, 16 focused on participants' propositional knowledge, 17 focused on their behaviors, and 18 focused on their emotional/spiritual beliefs. The survey items could be organized into five different categories: Christian faith, religion, relationships, morality, and other existential questions. Statements about the Christian faith included five statements about the Bible, three about God, four about Jesus, and one about heaven. The statements about religion included three about prayer, one about attending religious services, three about truth, two about peace, two about the creation of the world, one about following the religion of a parent, and two about evil. Twelve items focused on relationships with other people, including three statements about friendship, three about romantic relationships, two about confrontation, and five about helping others. Twelve items were about morality, including six statements about the difference between right and wrong, one about making

decisions, one about showing faith through actions, one about following the law, two about performing immoral actions, and one about the importance of money. The remaining statements included two about accepting consequences, two about having a purpose in life, one about feeling happy with oneself, and two about getting what one deserves. The 59 statements are in Appendix D, which includes the most biblically accurate response and the justification for the response from the Bible.

In addition to the survey, interviews were conducted with 10 teachers and eight parents. The teacher interviews included questions about their current understanding of a biblical worldview and the teaching strategies used to implement biblical worldview integration pedagogy. The parent interviews focused on their perspective of the school's mission, curriculum, and worldview of the school. Interviews are effectively utilized when the questions are focused on meaning, experiences, and perception (King & Horrocks, 2010). The interviews in the current study had open-ended questions inquiring about the teachers' and parents' perceptions of biblical worldview integration as implemented in the participating school. These details did not directly answer any of the research questions. However, they provided the details necessary to contextualize the survey results.

Population and Sampling Method

The research study was conducted at a Christian international school in Thailand. During the 2018–2019 school year, approximately 275 students were enrolled in Grade 6, Grade 7, and Grade 8. Of these students, approximately 45% were from Christian families and 45% came from Buddhist families. Other students were Hindu (4%), Sikh (< 0.5%), Jain (< 1%), Muslim (< 0.5%), and those who reported their religion as unknown (1%). The remaining 5% chose not to disclose their religious beliefs. All students were invited to participate.

Having a variety of religions represented in a Christian school could have several implications that directly impact the development of a child's worldview. As noted previously, less than half of the students at the participating school came from Christian families. Many were from missionary families from the United States, Australia, or New Zealand. Most of the other Christian students came from Korean families either living in Thailand because their parents were missionaries or because their parents moved for work opportunities. Buddhism was the other majority religion represented in the school. Buddhism was primarily practiced by the Thai students in several different ways. Families who come from a Thai-Chinese background often combined traditions by incorporating the worship of ancestors into their practice of Buddhism (Davis, 1997). Other Thai Buddhist practices ranged from visiting the temple, making merit (giving gifts or donations to earn good karma), meditation, and monk training camps (Davis, 1997; Jayasaro, 2013). Thai Buddhists hold a variety of beliefs, ranging from those who do not participate in religious activities but focus on the morals taught by Buddha, to those who meditate regularly and visit the temple weekly. A small group of Hindu students often associated with each other, as their families were close and because they could relate to each other's beliefs and religious restrictions such as vegetarianism. Students from these religions, and those who were Sikh, Jain, Muslim, or atheist, constituted the unique community of the school.

In addition to the religious differences affecting the middle school students, several social and cultural issues existed. When people come from different cultures and beliefs, a potential for conflict exists. Adolescents accord a high value to peer relationships, although these relationships may be unstable. Friend groups often change within several months of formation. Subtle forms of peer pressure, identified in body language and word choice, significantly impact the mindset and behavior of those in early adolescence (Lerner & Steinberg, 2004). When adolescents encounter different cultures, they must reevaluate their worldviews and either adjust to accommodate to, or

have a conflict with, their peers (Deveney, 2005). Students who attend international schools must learn how to interact with people who have different perspectives owing to cultural differences. Middle school students are expected to engage in conversations in which they share their opinion, listen to different opinions, and discuss their differences in a respectful manner. Observations of the participating school provide two examples. Sixth grade students who are Hindu, Buddhist, Jain, and Christian compared their beliefs in a Bible foundations course. In a Grade 8 math class, students from Kenya, Thailand, America, China, and Korea discussed business ethics after completing a project, which applied math to starting a business. This discussion pulled together biblical ideas of right and wrong, and the students discussed what they agreed with, what they did not agree with, and the reasons for their beliefs. Students at the participating school learned how to have these conversations in respectful ways, often seeking to learn more about each other than trying to be right. They often expressed their understanding that different people believe different things. However, that did not make one person better than another.

Another unique issue students faced in the participating international school was socio-economic class differences. Most of them came from wealthy families, especially the Thai students. Their wealth is the reason they were able to pay the tuition and attend the school. These students often had maids, nannies, drivers, and private tutors. Thai parents chose to pay for private education because they believed attending a good international school would provide opportunities for their children as they became fluent in English and receive a high-quality education, which would help them to gain admission to good universities (Hayden, 2010). In contrast, the students from missionary families were often in a very different position. They received financial assistance to pay tuition fees to the school and lived a simple lifestyle, which did not include the extra support their peers experienced. This did not seem to impact student relationships as much as ethnicity and religion did. This may be because many students from missionary families were also

the students from western countries and Christian families. Friend groups were often based on language and cultural backgrounds.

The researcher observed that students formed different affinity groups based on language and culture. Most of the time, students became friends with those in their grade from the same cultural background because they spoke the same native language and found it easier to understand each other. Someone who is not fluent in the language might find it difficult to become a part of that peer group (e.g., an American who wanted to be friends with a group of Korean students). As the students grew up and explored new interests, their friend groups often changed to include peers who were in the same sports or clubs as them. These more inclusive groups were open to others who enjoyed the same activities (Lerner & Steinberg, 2004). In this manner, worldview can seem rather fluid in this school setting and in the process of development due to religious and cultural differences and cocurricular interests.

Of the 26 middle school teachers at the participating school, 10 volunteered to participate in this research. The teachers were from five different nations, with the majority coming from the United States (18), followed by Thailand (four), Canada (two), China (one), and New Zealand (one). All were Christians and worked at the school because they felt they were called as a part of their mission to serve God. The 10 teachers were asked to participate in the study based on the subject and grade level they taught. Therefore, a variety of perspectives were represented in the research. One teacher from each subject area was interviewed (math, science, social studies, language arts, Thai language, visual art, learning support, performing arts, foreign language, and physical education), resulting in a more comprehensive description of biblical worldview integration and its implementation was obtained.

Furthermore, eight parents of middle school students were interviewed as a part of the research. All parents of Grade 8 students were invited to participate in the research through three

emails and a letter sent home with their child. The emails and letter were written in Thai and English to ensure that all parents understood and were able to consider participation. An interpreter was available upon request, although one was not needed for any of the interviews conducted in person. One Thai parent and one American parent chose to answer the interview questions via email because they were unable to make it in to the school for a face-to-face interview. This Thai parent chose to answer the questions in the Thai language; therefore, a professional translator was used. Parents of all ethnicities and backgrounds were invited to participate in an effort to obtain a comprehensive view of the school and its impact on students from the parents' perspectives.

Related Procedures

Several steps were implemented to get the approval of the participating school staff. First, speaking with the middle school principal, the curriculum specialist, and the headmaster about the research was necessary. These conversations focused on answering questions about the research including students' participation, questions the research hoped to answer, and queries about the methods to be used. All three administrators agreed the research would benefit the school and volunteered to help. The headmaster gave his consent regarding conducting research at the school if he were able to approve the survey instrument prior to distribution. He wanted to reduce the amount of Western bias in the survey and ensure exclusion of potential culturally offensive questions. Several survey instruments were discussed before settling on a self-designed survey. A self-designed survey was selected because other tests were deemed too difficult for the students to understand or too biased toward a Western worldview or toward a Christian worldview.

Before conducting any research, the parents of the middle school students were informed of the scope of the study and their permissions were obtained for their child's participation. Within the second week of the second semester, a letter was sent to the homes of all students written in

both Thai and English languages. Through the inclusion of these languages, the parents were able to read the information, thus increasing the chance of understanding the research details. The letter, which can be found in Appendix A, explained the research to the middle school parents and included a permission slip, which needed to be returned with their child. Before the students completed the first survey, the purpose of the survey was explained in a weekly assembly. This process allowed for informed consent in the study.

The first worldview survey was conducted during an advisory time in January (Grade 8) and February 2019 (Grade 6 and Grade 7) and the second and final during an advisory time the last week of May. The participating students were sent to a computer lab to complete the surveys under teacher supervision; the surveys were administered at the same time as often as possible. The researcher intended to have all participating students take the survey on the same day. However, a technical problem with the survey resulted in only one Grade 8 survey being submitted completely. Also, because of an unexpected school closing, Grade 6 and Grade 7 students took the survey one week after the Grade 8 students. Students who were absent and whose parents allowed them to participate took the survey at their convenience upon their return to school. The second survey was taken by all participating students on the same day at the end of May, one week before the end of the school year. The researcher was available by email and phone to respond to any problems when the participants were completing the surveys. Once the surveys were completed, the researcher was the only person who had to access the data, which was stored on an encrypted file on a flash drive locked in a secure location. The data will remain for three years and then be destroyed. Signed consent forms, a list of participating students in each grade, and a backup flash drive were also stored in the secured location. The first survey results were not analyzed until after the final survey was taken to avoid the survey results triggering any intervening changes in teaching method.

Teacher interviews were conducted during the 2018–2019 second semester. A random sample from each department was selected to be interviewed with one participating teacher from each department for a sample size of $N = 10$. The participating middle school teachers had been teaching for at least three years and were not first-year teachers at the participating school. Most had been teaching at the school for at least five years. These teachers were personally invited to participate in the research. When they agreed, they were given a consent form (see Appendix B). If a teacher did not want to participate, another teacher in the department was asked to participate in his or her place. This process continued until every department was represented. After a teacher returned the consent form, a one-hour appointment was made to conduct the interview in February, March, or April at the convenience of the interviewee. The interviews were conducted on the school campus and were audio recorded to ensure accurate transcription. Moreover, the researcher took written notes. After completion, each interview was transcribed as quickly as possible to ensure accuracy. As the interviews were conducted and transcribed, they were coded and analyzed using Dedoose coding software.

Interviews with eight parent volunteers were also conducted. In April, the parents of Grade 8 students were sent a letter inviting them to participate in this research study. The letter was written in both Thai and English and was sent in an email and in a paper form. All of the parents who responded positively were interviewed to ensure the most diverse and comprehensive possible sample size. As with the teacher interviews, the parent interviews were conducted on the school campus or via email for the parents who were unavailable for an in-person interview. The interviews were audio recorded, transcribed, and coded using Dedoose software. The combination of surveys and interviews provided a holistic view of the use of biblical worldview integration at the research site.

Instrumentation

The primary instrument used in this research was a worldview survey created specifically for the needs of the study (see Appendix C). When individuals have a biblical worldview, they align their thoughts, feelings, and behaviors with the Bible (Barna, 2003). This survey aimed to determine how closely a participant's worldview aligned with a biblical worldview as defined by the participating school through their statement of faith. Five descriptive questions were in the survey to identify the ethnic and religious background of each student and his or her family and one additional question for identification purposes. A worldview comprises the way an individual thinks (propositional knowledge), feels (emotional/spiritual), and acts (behavioral; Sire, 2004). Each of the 59 questions comprising the remainder of the survey fell under one of these three areas of worldview.

There were 16 questions to identify the alignment of an individual's propositional knowledge with a biblical worldview. Worldviews help address life's existential questions (Baumann, 2011; Sire, 2004). Some of these were addressed in the survey, including two questions about the purpose of life and two about how one can feel peaceful. In early adolescence, faith development occurs in large part because people begin to realize that good or bad things do not always happen to those who deserve it (Fowler & Dell, as cited in Roehlkepartain et al., 2006). Therefore, one question was about good and evil, two questions about what the participants believed they deserve, and one about when the participants felt happy with themselves.

Morals are also being developed during early adolescence, primarily influenced by the worldview an individual holds (Kohlberg & Hersh, 1977). To determine if the morals of the participating students aligned with those laid out in the Bible, the students were asked three questions that addressed how they determine what is right and wrong and if those values should be the same for all people. The biblical answers to the questions were determined by overarching

themes found in the Bible, as opposed to specific exceptions that may exist in a Bible story. It should be noted, however, that these exceptions and the variety of interpretations they may cause, are the reason Kanitz (2005) discussed the differences in biblical worldviews between any two Christians. Two of these questions about morality focused on confrontation because of the importance in Thai Buddhist culture to avoid confrontation at all times. Students who participated in the survey were asked eight questions about several morally challenging situations to determine how consistently their moral values aligned with a biblical worldview. For example, is it okay for someone to steal if he or she needs food or medicine but has no money? Questions such as these challenged the students' way of thinking. These questions made it more difficult for participating students to answer by simply stating what they thought the researcher wanted them to say.

Seventeen questions were asked to determine if the participants' behaviors were in alignment with a biblical worldview. The way individuals perceive the world influences their actions, therefore, it is important to understand if the participants' behaviors aligned with a biblical worldview (Sire, 2004). The participants were asked questions about their behaviors and the motivation for their actions. For example, three questions were about helping others to understand why the participant would choose to help someone else. Another set of three questions focused on a participant's actions in ethical situations. Were participants able to admit when they were wrong? Did they freely accept the consequences they faced? Would they lie to get out of trouble? These questions sought to determine if the participant's ethical values aligned with the Bible.

Certain behaviors of an individual are related to religion or spiritual activities. Some behaviors may be motivated by faith or emotions; however, a difference exists between believing something and letting the belief lead your actions (Sire, 2004). Participants were asked how often they pray and what they pray about and were asked about their motivation for attending religious services. As Buddhism places a major emphasis on respecting and following those who are older,

one question asked about blindly following the faith of a parent. Three additional questions about faith and actions were asked to participants inquiring if their faith helped them make decisions, if their behaviors demonstrated their faith to others, and whether they talked to their friends about spiritual matters. Together, these questions exhibited the way behavior was shaped by a student's faith. There are other aspects in which a worldview guides one's behavior.

Esqueda (2014) stated, "A worldview is a conceptual framework of our view of the world, a belief system that guides individual behavior" (p. 93). Individual behaviors often involve interactions with other people, something that holds importance in the Bible (Isaiah 1:17, Mark 12:31, Luke 6:27–30, Romans 13:9, 1 Thessalonians 5:11, Hebrews 13:1–2). Participants were asked to consider several specific interactions. They were asked if they would give money to those suffering from poverty because it was common in Thailand to pass beggars on the sidewalk. They were also asked if they were willing to go out of their way or go against their friends to help someone in need or to do what they knew was right. Dating relationships were addressed, specifically two questions about the role faith has in choosing who to date. According to Fowler and Dell's (as cited in Roehlkepartain et al., 2006) theory of faith development, early adolescence is when an individual begins to make his or her own faith decisions. Questions about the role faith plays in their relationships helps to determine if the students' individual faith is strong enough to impact their friendly and romantic interactions. If not, then it is not an essential part of their worldview.

Questions that focused on spiritual beliefs accounted for the final 18 questions in the survey. Five of these questions addressed the Bible to determine the participant's perspective of the Bible. Participants were asked to respond to the statements about the purpose, the accuracy, the holiness, and the applicability of the Bible. These questions about the Bible were chosen

because a biblical worldview is based on the foundation that the Bible is the inerrant word of God and is applicable to life today (Johnson, 2010).

One of the core beliefs of the Christianity is the existence of one triune God (Father, Son, Holy Spirit) who is holy, loving, all-knowing, all-powerful, and the perfect creator (Barke, 2014; Evans, 2015; Johnson, 2010). For this reason, three questions about God were included in the survey: if the participant believed there is one God; if God is living; and if God participates in the happenings of the world today.

Spiritually, individuals with a biblical worldview believe Jesus, the Son of God, is their advocate, a real person who died for their sins and rose from the dead before ascending into heaven (Evans, 2015; Johnson, 2010; Lanier, 2010). Four questions included in the survey focused on Jesus to determine if the participant held these core Christian beliefs. These questions inquired if the participant believed Jesus is the Son of God, He is a real person, rose from the dead, and rules from heaven. These beliefs are the basis for salvation in Christianity and are the defining characteristics of a biblical worldview (Johnson, 2010).

One of the differences between Buddhism and Christianity is the belief about the world and its origin. Buddhists believe the world always has been and always will be, but Christians believe the world was created by God (Jayasaro, 2013). Two questions were included to address this topic. Specifically, participants were asked if the world was created by God and if the world has a beginning.

Other spiritual questions in the survey were about prayer, truth, heaven, peace, evil, and religious traditions. Worldviews form the answers to existential questions (Baumann, 2011). These survey questions focused on some of the existential questions that dealt with spirituality and religion. They were modified from the questions in Sire's (2004) book about worldview. Two questions asked students about truth: if it is possible to know the truth about religious matters and

if there is one truth or many possible truths. To understand the participant's view of evil, one question was about Satan, asking if the participant believed he is real or merely a symbol. One question asked participants if people of all religions pray to the same god; another that asked if there is more than one way to get to heaven (Barke, 2014; Baumann, 2011; Johnson, 2010; Lanier, 2010). These questions aimed to explore the orientation of the heart in the worldview of participants. All 51 statements are in Appendix D with the most biblically accurate response and the justification for that response from the Bible.

Every question in the worldview survey was written as a statement with 5-point Likert scale responses, ranging from strongly disagree to strongly agree. Each response corresponded to a number from one to five, with five being the answer most closely aligned with a biblical worldview (see Appendix D). A student could have had up to 295 possible points, which would mean every response reflects the most biblical answer possible. The score was subdivided into the three areas (emotional/spiritual, propositional knowledge, and behavioral) to answer the third research question. The results from the first survey of every student was compared with the results from the second survey of the same student by using a dependent *t*-test to determine if, and how, his or her worldview changed. The comparison of the two scores helped to answer all three research questions.

Creating the survey was a multistep process. First, worldview literature was reviewed and the common questions researchers asked were identified. Second, the broad worldview questions were broken down into several very specific questions, which could be answered in one or two sentences. Third, the most biblical and least biblical answers to these statements were recorded, to ensure they were written simply for easier comprehension by middle school English-language learners. When the list was complete, the survey was sent to the headmaster and the curriculum director of the participating school, who was in charge of biblical worldview integration training.

The curriculum director suggested several wording changes. He suggested adding the statement, “I primarily help others because I want good karma” to balance the statements, “I primarily help others because I have to” and “I primarily help others because I want to make their lives better.” He recommended changes in the wording for 11 statements, which were subsequently revised for clarity. Four statements were separated into multiple statements based on his suggestions. The headmaster responded positively, not recommending any changes but did suggest a pilot should be run with several students to make sure they understood the wording of all of the questions.

After the second revision, the survey was sent to two theology professors and one psychology professor at Concordia University to ensure the questions were not ambiguous, unnecessary information was not included, and nothing essential was missing. Of the three professors, two responded and confirmed the questions were appropriate for this research. One professor did not recommend any changes. The other recommended running a Cronbach Alpha test to ensure internal consistency/reliability but agreed the questions were appropriate for measuring a biblical worldview. The Cronbach’s Alpha of the worldview survey was .920, indicating high reliability. A survey pilot was completed prior to implementation.

The survey was piloted with nine Grade 9 student volunteers; five Americans, three Thai, and one Australian student. The students were asked to pilot the survey and provide feedback. They were emailed the survey and filled it out at their convenience. Students were asked to comment on the amount of time it took to complete, the working of questions, and if they had multiple answers for any questions. They were given the opportunity to make other comments. All students completed the survey in less than 15 minutes, which is the ideal time frame for the study because advisory periods were 20 minutes long. The students wrote that they understood the wording of the questions, indicating they were written at an appropriate reading level for the target audience. Two other comments explained the reason the student had more than one possible

answer for a question. One comment revealed a confusion she had about what answer to give as a new Christian. The other comment was an explanation of the internal struggle faced while thinking about the answer to one of the worldview questions about dating. None of the questions in the worldview survey were changed as a result of the pilot.

An instrument for conducting teacher interviews was pretested prior to conducting research. The purpose of teacher interviews was to determine the teachers' understanding of biblical worldview integration and its implementation in their lessons. The interview instrument consisted of eight items and allowed some variance depending on the answers provided in the survey to ensure clarity and depth of understanding (see Appendix E). The first question inquired about the impact of Christianity on the interviewee's philosophy of education to gain an understanding of the way the interviewee perceived the difference between a Christian and a secular education. This allowed the researcher to gain insight into some of his or her past experiences in education. The second question asked the interviewees about their understanding of the pedagogy of biblical worldview integration. Analyzing the similarities and differences of the answers to this question in the 10 interviews provided information about how the participating school approaches the pedagogy. Interview items three through seven focused on the methods and strategies the teacher used to plan for and implement biblical worldview integration in the classroom. True biblical worldview integration occurs when the content areas being taught are intentionally and consistently connected to the truths found in the Bible (MacCullough, 2012). Through asking teachers about the way they implemented biblical worldview integration, it was possible to determine if biblical worldview integration was being integrated in every content area. The last interview item was an open-ended question, which allowed the interviewees to add information they wished to share or clarify.

A total of six interview questions were developed for the participating parents (see Appendix F). First, parents were asked details about the children they had currently enrolled in the school and the reason he or she chose to send his or her child to a Christian school. These two questions helped determine the parents' backgrounds and goals for their children and helped gain an understanding of why Thai Buddhist parents chose to send their children to a Christian school. Next, two questions about the mission of the school were asked. These questions required the parents to explain the mission in their own words and to describe three instances in which the school mission had impacted their family. The answers provided insight into the effectiveness of the school in fulfilling its mission. The fifth question asked the parents to describe three things they valued about the school curriculum. The curriculum is taught from a biblical worldview, so one would expect if biblical worldview integration is done successfully, one would expect the parents to talk about the Bible or Christian values during this section of the interview. Finally, the parents were asked to describe the worldview of the school in their own words. The answers to this question provided details about the effectiveness of biblical worldview integration conducted at the research site.

Data Collection

The survey method was utilized to determine the worldview of participating students in the completed study. A worldview assessment can only measure an individual's worldview at a specific moment in time. Moreover, an individual's worldview changes continuously based on the experiences that confirm or challenge how he or she views the world (Sire, 2004). Measuring the student worldview at the beginning and at the end of the semester measured the effect of biblical worldview integration on the worldview of middle school students. These two surveys provided insight into student worldview at two specific times. By comparing the results of the two surveys, it was possible to determine what changes, if any, took place.

To gather data for the study, two worldview surveys were conducted among middle school students who chose to participate. One of the surveys was given at the beginning of second semester, in January (Grade 8) and early February 2019 (Grade 6 and Grade 7). This survey was considered a pretest. The participating students took the same survey at the end of May, when the school year was concluded, as a post-test. The students completed both surveys online during school hours in one of the computer labs. The results were analyzed after the completion of the second survey.

In the time between the pre- and post-surveys, 10 interviews were conducted with middle school teachers from different departments and eight interviews with Grade 8 parents. These interviews were conducted in a one-on-one setting and were audio recorded so an accurate analysis could be made. Coding the interview responses for similarities and differences helped identify the way biblical worldview integration was understood and implemented at the research site. The Dedoose coding software was used to assist in identifying common themes. Each interview was transcribed. Transcripts were read at least three times: once to identify common themes within the interview individually; once to identify themes common to the other interviews; and at least once after the interviews were completed to ensure all commonalities were identified. Teacher interviews provided information on specific methods and the common understanding of a biblical worldview and the impact teachers thought they had in this area. Parent interviews focused on the impact the school had on families and the way Christianity emerged in the parent responses. The themes that emerged from these interviews provided the depth and understanding for the worldview survey results.

Operationalization of Variables

The survey used for both the worldview pre-survey and the post-survey measured two types of variables: nominal and ordinal. The nominal variables that were measured were age,

ethnicity, parents' religion, and personal religion. The students' answers to these questions provided information that helped investigate the second research question. The majority of the worldview survey measured three ordinal variables by using a 5-point Likert scale to measure statements and responses. These variables are considered ordinal because their responses are able to be put in order, but there is no possibility of determining the distance between each response. The worldview questions measured one of three aspects of a worldview: emotional/spiritual, propositional knowledge, and behavioral. Each response was given a number value based on its closeness to a biblical worldview. When the numbers were added, a higher sum indicated the participant potentially had a stronger biblical worldview. The nominal variables, when combined with the data provided by the ordinal variables, determined if there were any trends between them and the amount a student's worldview changes over the course of one semester.

To answer the first research question, the overall worldview scores on the pre- and post-surveys were compared using both a Wilcoxon Signed-ranks test and a paired *t*-test to determine how much change occurred over the course of one semester and if the change moved closer to a biblical worldview or further away. The second research question focused on the difference in worldview between Thai students and those from other cultural or religious backgrounds. A Wilcoxon Signed-ranks test and paired *t*-test were used to analyze the data from the pre- and post-surveys grouped into three categories; Thai, non-Thai, and American participants. The three variables or areas of a worldview to be measured were summed up and analyzed separately using descriptive statistics, a Wilcoxon Signed-ranks test, and a paired *t*-test to determine if a greater change occurred in one area compared to another. This data answered the third research question.

Data Analysis Procedures

Two tests were used to analyze the quantitative data from the student worldview surveys, the Wilcoxon Signed-ranks test and the paired *t* test. A Likert scale produces ordinal data. For that

reason, the Wilcoxon Signed-ranks test was used to analyze the data from the pre- and post-survey using SPSS software. This test is a nonparametric test, meaning it does not require a normal distribution of the data, used for paired data (Corder & Foreman, 2009). As a nonparametric test, it can be used with ordinal variables. Barke (2014) used the Wilcoxon Signed-ranks test to analyze the pretest and posttest when studying the impact of a biblical worldview course on the worldview of the participating students. The qualitative data from this study was paired and came from ordinal variables. For this reason, the Wilcoxon Signed-ranks test was used to analyze the student data.

The data from the two worldview surveys was also analyzed using a paired *t*-test analysis. According to Fink (2017), *t* tests are used to measure the change that occurs over time with the same group of participants. Fyock (2008) and Lanier (2010) used *t* tests in their analysis of worldview survey results to determine the change that occurred. SPSS was used to analyze the data using descriptive statistics and the paired *t*-tests. This test is used when testing the same participants at two different times, comparing the means from the two surveys, and determining if the difference is statistically significant (Morgan, Reichert, & Harrison, 2002). A paired *t* test helped measure the change that occurred in worldviews from the first survey to the second, determining if a significant change in worldview occurred.

There is some academic debate about the ability to use a *t* test with the data gathered from an instrument using a Likert scale. One of the assumptions necessary for a *t* test to be used correctly is that the variable is continuous, either interval or ratio. There are scholars who argue that data from Likert scales, especially when scores are summed and when the sample size is large enough, act as interval data and therefore may be used with parametric tests like the *t* test (Carifio & Perla, 2008; de Winter & Dodou, 2010; Norman, 2010; Sullivan & Artino, 2013). One of the benefits of using the paired *t* test is the power of the test, which is greater than its counterpart the

Wilcoxon Signed-ranks test (de Winter & Dodou, 2010). As a result of the academic debate surrounding the issue, both tests were used to analyze the data.

The qualitative aspect of this research, the teacher and parent interviews, were coded and analyzed using Dedoose software. The answers for each interview were coded according to emerging patterns, especially in the areas of implementation methods, teacher and parent perspectives, perceived impact on students, and the biblical worldview. Additional themes were identified as needed. The information gathered from the teacher and parent interviews was used to supplement the data from the surveys by providing depth and understanding, which comes from comprehending the context in which the students were learning.

Limitations and Delimitations

Several limitations and delimitations may have affected this study. One limitation was that students who participated in the study were being asked to report on their personal worldviews. Everyone has a worldview, but most people do not think deeply about it and might find it difficult to explain it to others (Barna, 2003). Although the students at the participating school engaged in classroom discussions about worldview topics frequently, students might not have thought about some of the questions or topics before and might not know how to answer. Furthermore, they may have been unsure how to answer if they were aware their personal ideas conflicted with the ideas of their parents and/or their teachers. Language is another limitation of the research because more than half of the students at the participating school speak English as a second language, which could have impacted their ability to understand some of the items on the survey. To reduce the chance of this occurrence, a worldview survey was created using simple words and phrases. The headmaster and the curriculum director were asked to read the instrument and provide feedback to ensure it was both culturally sensitive and the language was at par with the English literacy level of the students.

In addition to the limitations of the research, some delimitations were established for the study. First, a school in Thailand was chosen as the setting because Thailand provides a unique setting of an environment in which the culture is predominantly based on Buddhism instead of Christianity. Another delimitation was the use of a Christian school, specifically one in which more than half of the middle school students followed religions other than Christianity, which lessened the positive impact of outside variables on the development of a biblical worldview. Most of the students were influenced by their parents, religious leaders, and Thai culture to develop a worldview opposing biblical truth (Hilderbrand, 2016; Khareng et al., 2016). The school selected was an international school, another delimitation, because of its unique blend of cultures from the student population including students from many religious and ethnic backgrounds. I chose this specific school in Thailand because I was a teacher there and had access to the site and an inner perspective of the way biblical worldview integration takes place.

Other delimitations considered included the number and age of participating students. At the time of the research, 282 students were enrolled as middle-school students. All were asked to participate in the research. The researcher chose to focus on middle school students because they are in their early adolescence. During this stage, many changes take place in an individual's spiritual and moral development (Fowler & Dell, as cited in Roehlkepartain et al., 2006; Kohlberg & Hersh, 1977). By focusing on this age group, it was possible to determine how biblical worldview integration impacted the way a worldview changed during this important stage in development.

Internal and External Validity

Internal and external validity must be analyzed to reduce the threats to validity as much as possible. Several threats to internal validity exist, which may occur within a research study. Research conducted using a sample of the population may impact the validity of the results

because some of the people are excluded, potentially excluding essential information, which is why all middle school students were asked to participate in the research (Merlter, 2016).

The students may have answered in the way they thought they should to please others or follow rules rather than answering according to their worldview. It is possible students may have been used to answering questions in a Christian manner at school, assuming it is how the teachers and the researcher want them to answer, threatening the validity of the conducted research by answering the survey in a way that did not reflect their true worldview. To reduce the risk of this occurrence, the students were informed of the purpose of the research, which is to determine the way they think about things, which would help their educators to teach them more effectively. They were reminded to be honest, and their answers were not linked to them in any way because their names and email addresses were not be recorded with the results.

Students' worldviews naturally change and develop during this developmental period in their lives; hence, it is important to consider the impact of maturation (Erikson, 1950; Kohlberg & Hersh, 1977). Some changes may have occurred between the pre- and post-survey due to this natural development. While not a threat to the validity of the study, this outlying variance was taken into consideration. This research helped determine if it is more, less, or equally likely any natural change will be more toward or away from the biblical worldview held at the beginning of the semester.

Some external factors may have influenced students to develop a biblical worldview outside of the school's use of biblical worldview integration. These factors include parental influence, influences in pop culture, attendance of a religious service, or attendance in a youth group. Due to the culture and religious backgrounds of the population of students, less than half came from Christian homes and have outside Christian influences directing them towards a biblical worldview. The other half of the students likely had similar influences, which draw them further

from a biblical worldview. Comparing the results of students who come from Christian families to the results of those whose families practice other religions determined the impact of these outside influences.

A final threat to internal validity may have stemmed from the nature of the pre- and post-survey itself because students were asked to answer worldview questions they may not have previously considered. Seeing these questions and being asked to think about and answer them for themselves could have caused the students' worldviews to develop in a different way than they would have without the questions. Students may have become curious about some of the questions and may have asked teachers or parents about them, causing them to think more deeply about the questions. To reduce the threat to internal validity, questions were based on students' Bible classes and used words they may have encountered previously. The researcher did not discuss the items on the survey with any of the other teachers to reduce the risk of the teachers from talking specifically about any of the questions, even unintentionally. Even though the researcher worked to reduce the threat of internal reliability, these threats were taken into consideration when analyzing the results and drawing conclusions.

External validity should be considered with respect to the generalizability of the study to other situations (Adams & Lawrence, 2015). This study took place in a unique setting because of the conflicting nature of a Christian school in Thailand, where a majority of students came from non-Christian homes. This made it difficult to generalize the findings to many situations. This research took place in a Christian international school in Thailand; therefore, it may be possible to draw inferences on the impact of biblical worldview integration on the worldview of students in Christian international schools in other nations, specifically those having an influential Buddhist culture. The only way to ensure the results can be generalized would be to repeat the study in different settings and compare the results.

Expected Findings

The research measured the change that occurred in middle school students over the course of one semester to explore the potential impact of the pedagogy of biblical worldview integration. Over the course of one semester, a wide variety of changes were expected, ranging from students whose worldview became less biblical, to those who decided to become a Christian. Based on the research of Belcher (2005), it was expected educators who integrate a biblical worldview into their teaching and plan these moments of integration would be more effective in teaching a biblical worldview to their students. Research suggests effective implementation of biblical worldview integration occurs when teachers provide opportunities for students to participate in relating their coursework to biblical themes and ideas (Lawrence et al., 2005; Sherr et al., 2007). The researcher expected to find results supporting this theory through the analysis of teacher methods and a trend toward a more biblical worldview in the results of student worldview surveys.

The results from this study add to the body of literature on worldview development and biblical worldview integration. Little research has been discovered on the impact a Christian school can have on the worldview of a student from a non-Christian background. The research brings new knowledge into the field by showing how students' worldviews develop after attending an international Christian school using biblical worldview integration. The results inform scholars who study worldview development in adolescence, educators who work in international settings with multiple cultures and worldviews, and Christian educators who use biblical worldview integration with the intent of helping their students develop a biblical worldview.

Ethical Issues

Several ethical concerns might arise while conducting research. One concern is confidentiality (Adams & Lawrence, 2015). To protect the participants' identities, each student participant chose a five or six-digit code, unknown to the researcher, so no name was associated

with the results. Teacher and parent participants' participants confidentiality was protected by ensuring no identifying information was revealed, primarily detailing trends instead of specific information or quotes pertaining to only one or two people. All the files pertaining to the research, including consent forms, were stored in a locked filing cabinet, and all the digital files were encrypted and stored on an encrypted flash drive, which was also kept in the locked filing cabinet. The results were analyzed in aggregate to avoid the possibility of identifying an individual from the reported findings. After three years, all files will be shredded and destroyed.

Most participants in the study were minors; so parental consent was mandatory for students to participate (see Appendix B). The participants were old enough to decide if they felt comfortable participating; if they did, then they were also asked to sign a consent form. Some of the survey questions might have made students uncomfortable; thus, the students and parents could withdraw from the study at any time, even in the middle of taking the survey. This was explained in the consent forms and orally before the surveys were conducted. No known deception was used in the study.

An ethical issue concerns a dual role as I was both a researcher and had a professional association with the school. This may have pressured some students who chose to participate, even if they did not want to, out of a desire to please the researcher or avoid any imagined penalties. Similarly, the researcher's professional role at the school may have made some students not to want to participate because they did not want the researcher to know their answers to the survey questions. They may have been fearful they would be seen differently if the researcher learned of their identity. Such issues were explained in writing and verbally that no identifying information was stored, so responses could not be corresponded to an individual person. Students were informed there were no benefits to participating in the study and no penalties for declining participation.

The role of the researcher on site included giving a verbal explanation in an assembly of the study before students took the survey and addressing all of the middle school students at one time. When the students were taking the survey, the researcher was available for questions but was not in the room to avoid any potential bias (e.g., hearing the students react to one of the questions or unintentionally seeing some of the results of a student). I was available for questions via e-mail or telephone. I was contacted during the first survey taken by the Grade 8 students, when I was informed that an error message occurred when several students attempted to submit the survey. After several minutes of problem solving, it was discovered that these students would need to take the survey a second time; however, these students had already left because they thought their survey had been submitted. The implications for this are discussed further in Chapter 5.

Upon completion of the study and analysis of the results, the researcher debriefed the school administration. These results can be used in the future to inform the way biblical worldview integration can be implemented. No one-on-one results were given to students because their names were not collected with the data. Participating students, teachers, and parents had access to the final study results upon request. The copy of the study will be printed and published in the school's library and will be available to any currently enrolled student, teacher, or parent.

Summary

Using mixed methods research, the researcher attempted to identify the change that occurs in the worldview of adolescent students from Thai Buddhist families to determine the effectiveness of the pedagogy of biblical worldview integration in a Christian international school in Thailand. The results of two worldview surveys have been analyzed using the Wilcoxon Signed-ranks test and the paired *t*-test analysis to answer the three research questions. The instruments used were created for the purpose of this research, and efforts were made to ensure the results are reliable and

valid. Interviews were conducted with teachers who implemented this pedagogy to identify the trends in the methods currently being implemented and their perception on the effectiveness in their classroom experiences. Several parents were interviewed to determine the impact of the school curriculum on their child and their family. Analyzing the results from the student questionnaires and the interviews helped determine the effectiveness of biblical worldview integration.

Chapter 4 begins with an introduction to the research and a review of the way it was conducted. This is followed by a detailed description of the sample of students, teachers, and parents who participated. Next is a description of the methodology used and a presentation of the data and results. The data are presented in three sections; student surveys, teacher interviews, and parent interviews. Chapter 4 concludes with a summary of the data and results of the study.

Chapter 4: Data Analysis and Results

Introduction

The purpose of this study was to determine if early adolescent students developed a biblical worldview because of learning in a school that used biblical worldview integration. The completed study specifically focused on Thai Buddhist students studying at a Christian international school in Thailand during the second semester of the 2018–2019 academic year. A worldview survey was given to participating students at the beginning and end of the semester to determine how much of a change, if any, occurred. Eight parents and 10 teachers of middle school students were interviewed for more data about the perceived change in the worldview of early adolescent students and the teaching methods used at the participating school.

Three research questions that drove this study focused on the impact of biblical worldview integration on the worldview of middle school students, either Thai Buddhist students specifically, or the comparison of early adolescent students from different religious backgrounds. The purpose of biblical worldview integration is to develop a biblical worldview in students; therefore, their worldview should develop to become more biblical as time progresses. While no statistically significant change in worldview was found in the student surveys, analysis of parent and teacher interviews revealed a perceived change toward a more biblical worldview. This study primarily focused on Thai Buddhist students to minimize the effects of outside influence of biblical worldview from parents, churches, youth groups, and other cultural experiences. Much of the research previously conducted on biblical worldview integration was in a Western environment in which the participants were students who had Christian families and experienced a variety of outside influences. Focusing the research on Thai students from Buddhist families reduced the Christian influence outside of school and was the reason for the distinction in the research questions.

I was motivated to research biblical worldview integration because of my experiences working in Christian schools. Most recently I had a professional relationship with the participating school and wanted to know if biblical worldview integration was a worthwhile pedagogy teachers should continue to invest time developing. I wanted to know if this pedagogy made a difference in how the students thought, believed, and lived their lives. I wondered if the pedagogy worked the same for students from all backgrounds or if it were most effective for students who came from a particular culture or religion. Most of the research found in the literature review focused on students who came from Christian homes, in which they were raised with a biblical worldview and went to church where that was reinforced (Barke, 2014; Evans, 2015; Horan, 2017; Jang, 2011; Lanier, 2010; Lewis, 2015; Rutledge, 2013; Sabri et al., 2008; Sherr et al., 2007). If biblical worldview integration was researched with only these participants, how can one be sure the changes in worldview are the result of the pedagogy at the school and not due to other influences outside the home? Working with an international population with mostly non-Christians in a non-Christian culture provided a unique demographic for research. I had access to the participants as a result of my professional relationship to the research site, which allowed me to administer the surveys and interviews. These factors were the foundation for developing this study.

This six-month study took place at an international school in Thailand and consisted of three main parts. The first part was a pre- and post-survey designed to determine if the participating students' worldviews changed to become more oriented toward a biblical worldview over the course of one semester. The students took the same worldview survey at the beginning and at the end of the semester. The scores from the two surveys were compared to determine if a statistically significant change occurred. During the time between the pre- and post-surveys, interviews were conducted with teachers and parents. Ten middle school teachers from different content areas were interviewed to determine their perspective on biblical worldview integration

and its effectiveness at the research site. Eight parents of middle school students were interviewed to gain their perspectives on the impact biblical worldview integration had on their children. These three sets of data allowed for triangulation and provided a more complete look at the impact of biblical worldview integration.

Three instruments were used in this study, one for each of the three parts of the data collection. Each of the three instruments was self-created. The worldview survey was created with Sire's (2004) definition of worldview in mind and used the existential worldview questions he posed as a guide. The survey consisted of 59 statements with 5-point Likert-scale responses and five demographic questions at the beginning of the survey. The questions were written with the target population in mind, using language and situations the participating students would know. Credibility was ensured by receiving feedback from one psychology and two theology professors from Concordia University and by conducting a pilot survey with eight Grade 9 students who provided feedback on timing and clarity. Some minor changes were made based on the feedback. The interview instrument used with teachers was created to match the research questions by focusing on the perception of biblical worldview integration and its effectiveness, specifically with students from Thai Buddhist families. The interview instrument was piloted with two teachers and was slightly adjusted based on their feedback. The parent interview instrument was created to obtain the parent's perspective on the curriculum impact and the school's mission on their family and their child. This instrument was not piloted but the headmaster of the research site reviewed it.

The worldview survey and two sets of interviews provided qualitative and quantitative data. Numeric data were gathered from the pre- and post-surveys taken by the student participants. Each survey provided data about each student's worldview in the areas of emotional/spiritual, propositional knowledge, behavioral, and worldview overall. The data in each of these areas were compared between the two surveys using the Wilcoxon Signed-ranks test, as well as a paired *t*-test

to determine if a statistically significant change occurred in any area of a student's worldview over the course of one semester. SPSS software was used to run both tests. The qualitative data from the teacher and parent interviews were coded and analyzed using Dedoose. Themes were identified related to biblical worldview integration by identifying the participants' perspectives of what it is, how it is measured, its effectiveness, and its impact on children outside the classroom.

The findings of this study revealed several trends. When analyzing the numeric data gathered from the pre- and post- surveys, no statistically significant change appeared in any of the four areas. Comparing students from different cultural and religious backgrounds did not show any statistically significant change. However, some discoveries stood out when analyzing the parent and teacher interviews. The teacher participants had a common definition of biblical worldview integration but different understandings of the desired student outcomes and how to measure biblical worldview. They provided details of both positive and negative observations of students during times of biblical worldview integration. Both the parents and teachers found the teacher/student relationships had the greatest impact on students, either positively or negatively. The parent interviews revealed biblical integration and Christianity were a priority at the school, and their children had experienced positive changes in their spiritual and moral development through their experiences at the participating school. Details of these findings are provided below.

Description of the Sample

This study on the effectiveness of biblical worldview integration with early adolescents had three distinct stages, each with its own sample size. The stage with the largest populations was the student surveys that had a possible sample size of $N = 282$. Ten teachers were interviewed and eight parents chose to participate in the parent section of the interviews. More specific information about these sample sizes follows.

Student surveys. Several steps were taken to encourage the 282 middle school students to participate in this study. At the end of January 2019, each student was given a permission slip in their advisory and was told briefly about the research. The permission slips were written in Thai and English for maximum level of understanding by students and their parents. The following day, during the weekly assembly, the researcher gave the students a brief explanation of the study and what their roles would be if they chose to participate. Their advisory teachers reminded the students every day to return their permission forms, up to the day of the first survey.

Of the 282 students enrolled in the middle school of the participating school, 66 students participated in this study. Included in the participants were 24 in Grade 6, 23 in Grade 7, and 19 in Grade 8. Unfortunately, not every student who participated successfully completed both the pre- and post-survey with the same PIN. The same PIN on the pre- and post-surveys was a requirement for the surveys to be included in the data analysis so that the results could be partnered for the Wilcoxon Signed-ranks test and the paired *t*-test. There were 26 surveys submitted that did not have a partner because the student did not use the same PIN for both the pre- and post-surveys or because the participant completed only one of the two surveys. It is probable the students did not remember the PIN they used and did not record it as recommended, so they may have used two different PINs. Also included in these 26 surveys without a partner were five surveys using the same PIN 12345. The demographic information was not unique enough to determine which of these surveys were true partners.

There were 45 surveys with partners using the same PIN that could be analyzed. Seven different nationalities were represented in the surveys, demonstrating the international demographics of the participating school: 22 Thai, 12 American, two Australian, two Indian, two Korean, one Chinese, and four other. More students represented Grades 6 (21) and 7 (18) than from Grade 8 (six) because of technical difficulties that occurred on the day the Grade 8 students

took the pre-survey. Some of the participants' surveys were not recorded and the students whose surveys were missing were unwilling to take the survey a second time. During the time the Grade 8 students were taking their first survey, it was announced school was canceled the following two days, which may have affected the number of completed surveys. The personal religions of student participants were recorded as 29 Christian, 12 Buddhist, one Hindi, three other, four no religion, and 13 not sure. Some participants recorded more than one religion, which is why more than 45 personal religions are recorded. The parents' religions were recorded as 27 Christian, 16 Buddhist, one Hindi, one Jain, two other, three no religion, and three not sure. Six students recorded a different religion than their parents, and 13 students changed their personal religion from the pre-survey to the post-survey. Details of these changes can be found in Table 1 and Table 2.

Table 1

Student Participants Personal Religions (When Change Occurred)

First Recorded Religion	Second Recorded Religion				
	None	Not Sure	Buddhist	Christian	Hindi
None		x		X	
Not Sure			xx	X	x
Not Sure & Buddhist		x			
Not Sure & Christian				X	
Buddhist		x			
Christian					
Buddhist & Christian			x	xx	
Other	x				

Note. Table 1 describes the change in students' personal religion from the pre-survey (on the right-most column) to the post-survey (on the top row). Each x represents one student and is placed at the intersection of their pre- and post-survey personal religion.

Table 2

Religion of Participating Students and Their Parents (When Different)

Student	Parent Religion			
	Buddhist	Buddhist & Christian	Hindi	Jain & Christian
Not Sure	x		x	
Not Sure & Christian	x	x		
Christian	x			x

Note. Table 2 shows the difference between the student's religion (on the right-most column) and their parent's religion (on the top row). Each x represents one student.

Teacher interviews. Interviews were conducted with 10 middle school teachers who worked at the study site. Each of the educators taught a different content area and were asked to participate because of their content area and their years of experience at the school. The content areas represented were fine arts, foreign language, language arts, learning support, math, performing arts, physical education, science, social studies, and Thai language. Each content area had multiple teachers, so the teacher with the most experience was asked to participate. The participants were asked through personal notes in their faculty mailbox, accompanied by the consent form. Then, a follow up request was done in person. If the person agreed or needed time to think about participating, an email request to participate was sent within one week. In three instances, the teacher with the most experience declined to participate, so this process was repeated with the teacher who had the next highest seniority in that content area until all 10 areas were represented.

The demographics included eight Americans, one Canadian, and one Thai teacher. Four of the teachers were women and six men. Teachers were asked to participate based on their seniority in their content area at the participating school to get the best possible understanding of the way

biblical worldview integration was implemented at the school from those who had more experience with it. The teacher with the most experience in each content area was asked first to participate. No one with less than three years of experience at the school was asked to participate. Two participants had taught at the school for more than 10 years, five had taught between seven and nine years, two had taught between four and six years, and one teacher had taught at the school for three years. All of the teachers were practicing Christians who had participated in training related to developing a biblical worldview and biblical worldview integration.

Parent interviews. The parent participants were recruited through the Grade 8 students. Three emails were sent to parents of Grade 8 students and two physical letters sent home with the students. All forms of communication were written in English and Thai. The third set of emails were sent to Grade 7 Thai parents to increase the number of Thai participants; however, none of these parents chose to participate. Of the participants, five were American Christians, two Thai Buddhists, and one Thai Christian. Three of the eight parents were a part of the school community as the wife of a board member, the wife of the curriculum director, and the husband of an elementary teacher. This was kept in mind when analyzing their answers. Seven participants were women and one was a man. It was difficult to recruit Thai parents to participate, possibly caused by the high work load and long hours common in Thailand. Most Thais work 12 hours per day, six days per week. To compensate for this, the final push for interviews included an option for filling out the questionnaire and emailing it back to the researcher, either in Thai or in English. This option provided the opportunity for one Thai Buddhist parent to answer the questions in her native language and on her own schedule.

Research Methodology

Research was conducted using a combination of surveys and interviews in a mixed-methods study. Qualitative data were gathered through survey research to determine if any change

occurred in the worldview of participating students. This followed the example of Barke (2014), Lanier (2010), Rutledge (2013), and Schultz (2012) who conducted research on worldview using surveys. Interviews with teachers and parents were conducted to triangulate data and provide a more comprehensive view of biblical worldview integration and the perceived impact it had on middle school students at the participating school. Peterson (2017) and Fowler and Bell (as cited in Roehlkepartain et al., 2006) used interviews in their research to determine the perception of students and the stages of faith development. It was determined that a mixed methods study using survey and interview designs was the best fit for the completed study.

The researcher used several methods to analyze the data gathered in the three stages of the research. The pre- and post-surveys taken by the student participants were analyzed using the Wilcoxon Signed-ranks test and a paired t test. The Wilcoxon Signed-ranks test was used because it compares ordinal data from two paired groups of data in order to determine the significance of the differences between the two groups. In this case, it was used to determine the statistical significance, if any, of the change from the pre-survey to the post-survey. The paired t -test was also chosen because it is a way to measure the change in numeric data from the same group of people taken at two different times. An analysis of the interviews was conducted by coding transcripts of each interview using Dedoose and identified themes in the data. Each interview was read through and analyzed at least three times, identifying common themes and differences. Analysis focused on themes surrounding the definition of biblical worldview integration, the perceived impact on students, implementation methods used, and issues unique to Thai Buddhist students. Other themes were included as they presented themselves during the analysis.

Presentation of Data and Results

Three research questions guided gathering and analyzing data from student surveys, interviews with teachers, and interviews with parents at the participating school in Thailand. The

Wilcoxon Signed-ranks test and paired t test were used to analyze the numeric data from the student surveys. Parent and teacher interviews were coded and analyzed based on trends that emerged through the interview process. The key findings are presented below.

Problem and research questions. Biblical worldview integration, a commonly used pedagogy in Christian schools around the world, is often implemented without a clear assessment of its effectiveness. It is unclear if the methods being used to implement a biblical worldview have the intended impact on students. This study examined if biblical worldview integration was implemented effectively in a Christian international school in Thailand through the following research questions:

RQ1: What is the impact of biblical worldview integration on the worldview of Thai

Buddhist middle school students at a Christian international school in Thailand?

RQ2: What is the difference in the impact of biblical worldview integration at this school

for Thai Buddhist students and for those from different religious and ethnic backgrounds?

RQ3: What is the impact of biblical worldview integration in each of the three areas of a

worldview: emotional/spiritual, propositional knowledge, and behavioral?

Student surveys. To answer the first research question, an analysis was done of the scores on the pre- and post-surveys taken by the 22 participating Thai students (see Table 3). The mean for the pre-survey ($M = 195.14$, $SD = 28.217$) was 1.091 less than the mean for the post-survey ($M = 196.23$, $SD = 21.754$) indicating a slightly more biblical worldview on the post-survey. However, a change of 1.091 out of a possible 295 was slight, indicating consistency more than change. The Wilcoxon Signed-ranks test indicated that no statistically significant change occurred between the pre- and post-survey, $Z = -0.341$, $p = 0.733$. A paired t test showed no significant difference in the scores for pre- and post-survey for Thai students, $t(21) = -0.292$, $p =$

0.773. The t score described the number of standard errors away the means are from a difference of zero. In this case, the t value of -0.292 was small, indicating no statistical change. The p value was the probability that the difference between pre- and post-survey means was due to sampling error. In this case, the p value indicated that the change may be due to chance as often as seven out of 10 times. It was significantly higher than the $p < .05$ needed to reject the null hypothesis.

Table 3

Paired Samples t Test: Thai Participants

Category	M	SD	SEM	LL	UL	t	df	Sig. (2-tailed)
Behavioral	.455	7.136	1.521	-2.710	3.619	.299	21	.768
Emotional/Spiritual	-1.636	15.189	3.238	-8.371	5.098	-.505	21	.619
Propositional	.091	5.098	1.087	-2.169	2.351	.084	21	.934
Total	-1.091	17.517	3.735	-8.858	6.676	-.292	21	.773

Investigating the survey data further to answer the second research question, the data were analyzed (see Table 4) with all the non-Thai students (see Table 5) and with only the American students (see Table 6). The second research question required a comparison of the impact of biblical worldview integration on Thai Buddhist students with students from other ethnic and religious backgrounds. When studying the survey results of all 45 students, the mean for the pre-survey ($M = 206.58$, $SD = 29.501$) and post-survey ($M = 209.96$, $SD = 24.998$) increased by 3.378, indicating a very slight change toward a biblical worldview. The results of the Wilcoxon Signed-ranks test demonstrated no significant change in the results of the pre- and post-survey results of all students, $Z = -0.649$, $p = 0.516$. The paired t test analyzed the differences in the outcomes of student surveys, resulting in $t(44) = -1.255$, $p = 0.216$. The p values from both tests were greater than the $p < .05$ required to reject the null hypothesis. Therefore, no significant difference existed for the scores of the pre- and post-surveys of all 45 student participants.

When analyzing the surveys taken by the 12 Christian American students, the mean of the pre-survey ($M = 229.33$, $SD = 23.558$) and post-survey ($M = 234.75$, $SD = 11.079$) had an increase of 5.42, a less than 2% change. The Wilcoxon Signed-ranks test indicated no significant change in the pre- and post-survey results, $Z = -0.432$, $p = 0.666$. A paired t test of the data from Christian American students showed no significant change, $t(11) = -0.864$, $p = 0.406$. The t score of -0.864 was close to zero, and the p values of both tests were greater than 0.05, indicating no significant difference.

The surveys for all 23 non-Thai students were analyzed together to complete the data analysis required to answer the second research question. The difference in the mean for the pre-survey ($M = 217.52$, $SD = 26.915$) and post-survey ($M = 223.09$, $SD = 20.721$) had a difference of 5.57, a 1.89% increase towards a biblical worldview. However, the results of the Wilcoxon Signed-reanks test indicated no significant change in the pre- and post-survey scores, $Z = -1.187$, $p = 0.235$. Likewise, the results of the paired t test showed no significant difference in the scores $t(22) = -1.429$, $p = 0.167$. Although smaller than the other p values, the difference was still greater than the $p < .05$ necessary to reject the null hypothesis.

Answering the third research question with the students, surveys required separate analysis of each part of a worldview: emotional/spiritual, propositional knowledge, and behavioral (see Table 4). Each survey provided a point value in each of the three categories to determine if one area changed more than another. The mean of the emotional/spiritual aspect of worldview increased from ($M = 75.36$, $SD = 18.110$) for the pre-survey and ($M = 76.69$, $SD = 14.198$) for the post survey, an increase of 1.3. The Wilcoxon Signed-ranks test indicated no statistically significant change in the emotional/spiritual section of the survey for all participants, $Z = -0.453$, $p = 0.650$. A paired t test was also used to analyze the emotional/spiritual section of the surveys, $t(44) = -0.781$, $p = 0.439$. The p values of 0.650 and 0.439 from both tests were greater than the

Table 4

Paired Samples t Test: All Participants

Category	<i>M</i>	<i>SD</i>	<i>SEM</i>	LL	UL	<i>t</i>	<i>df</i>	Sig. (2-tailed)
Behavioral	.844	6.782	1.011	-1.193	2.882	.835	44	.408
Emotional/Spiritual	-1.333	11.446	1.706	-4.772	2.105	-.781	44	.439
Propositional	-2.889	11.146	1.662	-6.238	.460	-1.739	44	.089
Total	-3.378	18.053	2.691	-8.802	2.046	-1.255	44	.216

Table 5

Paired Samples t Test: Non-Thai Participants

Category	<i>M</i>	<i>SD</i>	<i>SEM</i>	LL	UL	<i>t</i>	<i>df</i>	Sig. (2-tailed)
Behavioral	1.217	6.564	1.369	-1.621	4.056	.889	22	.383
Emotional/Spiritual	-1.043	6.449	1.345	-3.832	1.745	-.776	22	.446
Propositional	-5.739	14.363	2.995	-11.950	.472	-1.916	22	.068
Total	-5.565	18.674	3.894	-13.640	2.510	-1.429	22	.167

Table 6

Paired Samples t Test: American Participants

Category	<i>M</i>	<i>SD</i>	<i>SEM</i>	LL	UL	<i>t</i>	<i>df</i>	Sig. (2-tailed)
Behavioral	2.167	6.293	1.817	-1.832	6.165	1.193	11	.258
Emotional/Spiritual	.333	6.125	1.768	-3.558	4.225	.189	11	.854
Propositional	-7.917	17.794	5.137	-19.222	3.389	-1.541	11	.152
Total	-5.417	21.715	6.269	-19.214	8.380	-.864	11	.406

necessary $p < 0.05$ indicating no significant difference in the emotional/spiritual aspect of worldview. The mean of the propositional knowledge section of the worldview survey increased from the pre-survey ($M = 54.04$, $SD = 11.943$) and post-survey ($M = 56.93$, $SD = 6.887$), an increase of 2.89. The Wilcoxon Signed-ranks test used to analyze the propositional knowledge section of the student surveys gave the results $Z = -1.458$, $p = 0.145$. The paired t test run on the same section yielded the results $t(44) = -1.739$, $p = 0.089$. The p values were both higher than the necessary $p < .05$, indicating no significant change. The final category, behavioral worldview, had a slight decrease of 0.84 in mean from the pre-survey ($M = 77.18$, $SD = 9.230$) to the post-survey ($M = 76.33$, $SD = 7.087$) indicated no significant difference in the scores for the pre-survey and post-survey. A Wilcoxon Signed-ranks test indicated no statistically significant change in the behavioral worldview of the participants, $Z = -1.012$, $p = 0.312$. The paired t -test analysis of the behavioral worldview data provided the results, $t(44) = 0.835$, $p = 0.408$. No significant change occurred in the behavioral category of worldview, evidenced by p values of 0.312 and 0.408, higher than the necessary $p < .05$ needed to reject the null hypothesis.

Although no evidence of statistically significant change in worldview was demonstrated in any group, other comparisons could be made. The post-survey means for each group were Christian American students $M = 234.75$, non-Thai students $M = 223.09$, all students $M = 209.96$, and Thai students only $M = 196.23$. The mean score was highest in the surveys of the Christian American students, indicating a higher overall biblical worldview than their Thai peers who come from Buddhist families. Of the groups, the Thai students had the lowest overall mean scores. The pre- and post-survey results for the Thai students were the most consistent. These differences reflected the significant differences between the worldviews of Christian and Thai students, even though no significant change was found in either group.

Teacher interviews. Interviews were conducted with 10 middle school teachers at the participating school, each teaching a different content area. These interviews helped provide meaning and substance to the numeric data from the student surveys. The definition and purpose of biblical worldview integration, methods of integration, student and teacher perceptions, and perceived effectiveness were some of the themes discussed with teacher participants.

Teachers were asked to define biblical worldview integration and its purpose. Biblical worldview integration was defined as “incorporating biblical principles in everyday subjects and relating things in the classroom to the foundational principles in the Bible” by the physical education teacher, a definition that includes several agreed upon concepts. Seven of the 10 teachers mentioned the concept of incorporating the Bible or biblical principles. The math teacher’s explanation was, “I have to find ways to bring out biblical concepts, biblical understanding through my subject area by bringing up connections between the two, between mathematics and scripture, between mathematics and the character of God.” Parallels can be made between the math teacher’s definition and that of the foreign language teacher, who said biblical worldview integration is, “A mix of biblical principles and a biblical understanding with the subject area that I’m teaching and the content of that subject.” Both teachers focused on incorporating principles or concepts found in the Bible into their lessons, rather than specific Bible verses. The fine arts teacher said biblical worldview integration is, “Making sure what we teach is in line with the Bible.” This could be interpreted as simply not using anything in the class that contradicts the Bible, without the necessity of including connections to the Bible or biblical concepts. However, she later provided details that demonstrated an understanding of how biblical principles can be integrated into her curriculum, “I try to teach the kids that it’s not just . . . about making a Christian scene when doing an art project. It’s about using materials wisely, taking care of the environment, showing respect for each other and the world.”

Another common aspect of teachers' definitions of biblical worldview integration was viewing the content through a biblical lens/worldview. For example, the language arts teacher described her understanding of biblical worldview integration:

This idea of seeing that there are multiple worldviews. We all come from different perspectives, but there is something about, kind of having a lens of how we view the world and how we view situations and our content area through the lens of scripture and what it teaches.

The science teacher described biblical worldview integration as, "Viewing the world through the Bible's lens and looking at your content through the Bible's lens." Comparatively, while not specifically using the word worldview, the social studies teacher spoke of perspectives, "It's allowing a certain lesson to be plugged into a greater understanding of God's hand and God's will in this world while also understanding our human inability to understand that at the same time." These definitions showed that teachers believed there are many ways to interpret what we experience and learn and that an intentional decision should be made to use the Bible as the source for interpreting those experiences.

Nine teachers said biblical worldview integration is a connection or pathway between the content, God, and the Bible, either generally or through content specific statements. As an example, the science teacher said, "It's about sharing the whole story of the Bible and the Gospel interlinked with your content, as opposed to just on top of your content." Imagery of a pathway was used to describe the connections made in biblical worldview integration by the learning support teacher, "Biblical integration is simply the process of taking students from whatever is happening in world events or any idea or concept and creating a pathway that leads towards really God's truth." These ideas of linking content to the Bible is like the way MacCullough (2012) explained biblical worldview integration. She described it as a bike wheel with the Bible in the

center and the content area circling it on the outside. An educator's job is to provide the spokes that connect the content to the Bible.

Individuals' worldviews determine their actions (Sire, 2004). Consequently, that part of biblical worldview integration should include the intentional integration of actions that align with the Bible. The importance of teacher actions and modeling the Christian lifestyle was emphasized throughout the interview with the performing arts teacher, beginning with his definition of biblical worldview:

We're trying to apply the Bible or the ideas of the Bible in a way we are taught into our classroom. Trying to get the beliefs, the lifestyle, that Jesus teaches us to the kids in the class. Either by our behavior, our actions, or our words.

The importance of actions over words was understood as a significant aspect of biblical worldview integration by the physical education teacher as well. He said, "I think it's very important for me as a PE teacher to live out the biblical principles as much as it would be to sit down and talk about it. To display kindness and tenderness and understanding to the kids." The teachers who spend most of their time teaching their students behaviors, such as physical education and drama, spoke more about the importance of modeling appropriate behaviors than the other teachers who were interviewed.

The definitions of biblical worldview integration were consistent for many of the teachers; however, a wide variety of ideas existed as to its intended purpose. The most common purpose, stated by seven of the 10 teachers, was to help students understand that God and the Bible are relevant to their lives. For example, the language arts teacher said, "I think that basically the goal is for the students to see that the Bible is relevant, that God is relevant to their lives." The sentiment was echoed by the foreign language teacher, who said, "I think it's to help students see that every area of life, or every area of study that they're encountering in school, has a connection

to a biblical worldview.” The Thai teacher gave an example of learning more than knowledge, including the ability to apply the knowledge and use it in their lives in ways that glorify God. “Like recently I teach the numbers so that they can count. I say, ‘Okay, how can you count,’ and they can use that to count the blessings that God blessed them.” Not only is biblical worldview integration used to teach different worldviews but also, according to the learning support teacher, so “they can see that it’s not just a book of stories. We can associate with it.”

Half of the teachers mentioned changing the worldview of the students or helping the students develop a biblical worldview as the purpose of integration. Even though he didn’t use the word “worldview,” the concept of changing the way students see the world was evident in the math teacher’s description of the purpose of biblical worldview integration:

I think it’s good for the kids to see connections between what they’re learning and life. The Creator that made them and His purposes and what their purposes could be; and they know him, then for them to see that there’s a greater connection between everything that happens around us and what we teach in a classroom.

The learning support teacher stated it more concisely when he said the purpose is to “help students see a biblical worldview.” At the end of the interview, the foreign language teacher described examples of methods he used and said, “Whether that translates into actual change in their worldview over time, I’m not sure.” This demonstrated that he believed a change in worldview was one of the goals of integration, even though it was not stated that way directly.

The purpose of biblical worldview integration for four teachers was to share the gospel with students. The performing arts teacher explained the purpose is, primarily, “To save these kids.” While not the only purpose he stated, the science teacher agreed that the purpose is, “To defend the gospel. But I think it goes deeper than that. The purpose is to connect the hope of Jesus to the world that we are educating our students about.” Reflecting on his own practice, the

math teacher echoed the research of Boele-de Bruin and de Muynck (2017) when he said, “I think that would be every Christian teacher’s heart’s desire, is that their kids would be constantly . . . given the opportunity to hear the truth and the connections and that sort of thing.” These teachers demonstrated a perception that biblical worldview integration is about their students becoming Christians.

The physical education teacher described a similar purpose, “The purpose, first and foremost, is to connect kids to the Creator of everything they’re studying.” Similarly, the math teacher stated, “Well, I think it’s good for the kids to see connections between what they’re learning and life. The Creator that made them and His purposes and what their purposes could be.” Without the connection between God and the subject area, the foreign language teacher said, “There’s no connection in the student’s mind between what they’re learning in class and what’s contained in God’s Word, then they’ve divorced those two in their mind and God’s Word may not seem relevant to them in various areas.” Therefore, the idea is not only for teachers to make connections between the content but also for students themselves to be able to make those connections, coinciding with the research conducted by Burton and Nwosu (2003) and Lawrence et al. (2005).

A theme brought up by two teachers was dispelling myths students may have about Christianity. The foreign language teacher, when speaking about the effectiveness of his methods for using biblical worldview integration with Thai Buddhist students, said, “I think the main impact . . . is just dispelling certain misunderstandings about Christianity. And whether that translates into actual change in their worldview over time, I’m not sure.” The language arts teacher, speaking of all students, said, “Oftentimes people will think that science disproves God . . . the kids are able to see—well wait a minute, the evidence and the information doesn’t contradict or conflict with the Bible, it actually supports it.” “It enriches our students’

understanding of the world,” stated the social studies teacher. These descriptions of the purpose of biblical worldview integration impact the methods the teachers use for integration and for determining the effectiveness of their strategies.

The middle school teachers at the participating school used several methods to integrate a biblical worldview into their classes. Six of the teachers integrated biblical themes into their class discussions and lessons through content specific topics. The physical education teacher said, “I heavily integrate the Bible with health lessons. I talk about taking care of our bodies, taking care of the earth, taking care of pollution—why, and the purpose of it.” In one part of his interview, the math teacher described difficulties he had previously finding ways to integrate a biblical worldview. He found it easier when using biblical themes, “Especially when you bring in the character of God and how we’ve created these things in the Math SACT [Subject Area Curriculum Team] to use this characteristic to try to connect what’s going on in the classroom.” To bring continuity and a natural feel to biblical worldview integration, the science teacher integrated the theme of design into each unit throughout the year. This integration involved asking questions like, “How do you know if density was designed? How do you know if the earth was designed or the atmosphere was designed?” These thematic explorations may or may not directly quote the Bible, but they do incorporate aspects of the Bible and apply them through critical thinking and discussion.

Half of the teachers used the method of asking serious questions to their students and then exploring the answers to those questions as a class. The science teacher’s quote gives an example of questioning. The social studies teacher asked serious questions to guide discussions throughout a unit that lead to exploration of biblical ideas. She gave an example from her unit on the U.S. Constitution:

The Lord made us creative, the Lord has given us dominion and stewardship. So, we need to thoughtfully, intentionally create a society that is organized, that protects its people. And so, I love asking open ended questions of just like, “Why do we have government?” “Why do we have laws?” “What are rights?” “If we give everyone the freedom of speech, are there limitations on that?” and have the kids just creatively think, like “How do we organize a society that is good?” And so, I see a lot of the Lord’s giving us as humans dominion and power but also huge responsibility.

Using serious questions with no obvious answer provided opportunities to think about and challenge aspects of worldview while thinking more deeply about the content.

All but one of the teachers used discussions as a primary method for integration. For example, the language arts teacher used a biography about Harriet Tubman to start a full-class conversation. “We talk about how there are various freedom fighters and people who have made a difference in the world, Harriet Tubman being one of them, but then ultimately Jesus is like the freedom fighter for us as well.” The students could use information they learned from science, history, and Bible class to work through the assignment, demonstrating to their teacher the effectiveness of integration in making connections across the curriculum.

Discussions were the most commonly mentioned method of integration, often used spontaneously as subjects come up in class. The learning support teacher gave an example:

I had a BWI that I did with 6th grade and that one was good there was actually conversations that came up. . . . I had the students do a monologue and the guy . . . was talking about how the concept of creation and science kind of fit together and he could see the beauty of all these things and actually the students started talking to each other. Not to me but to each other. . . . I chose this specific example so that they would have those conversations and they did.

This demonstrated a knowledge of the Bible and a habit of drawing connections to the Bible. Instead of a student-led discussion, the foreign language teacher led a spontaneous biblical worldview integration through storytelling, “The spontaneous and explicit, that’s almost like life lessons or story time, you know, like ‘Oh that reminds me, actually this relates back to an experience I had’ . . . those spontaneous times can be really valuable for the students.” Sometimes the conversations with students were not focused on the content area but come up from things happening in the students’ lives. For example, the fine arts teacher said, “Even today, something came up in conversation. It had nothing to do with the lesson. . . . That’s the nice thing about art class. There’s a lot of conversation that’s off topic, because we can do that.” The discussion might be planned, as was the case given by the social studies teacher, “A really good example is slavery and discussing what have traditionally been the Christian’s views of slavery.”

Teachers mentioned other methods of integrating a biblical worldview integration using specifically designed activities. The Thai teacher incorporated specific Bible verses into a lesson. After learning body parts and doing an activity, “We will come up with, we are the body, you know the body of Christ. And then I give them a topic to discuss, you now like, ‘When some part is weak the whole body is weak.’” The performing arts teacher incorporated biblical worldview integration activities. He used biblical themes to design activities and stated, “Trying to get these guys in other people’s shoes to see what it’s like to be, I don’t know, an elderly person who’s got dementia. . . . And then they get an appreciation for or Christ-like view of what people are.” Teachers used several methods to integrate the content with a biblical worldview and to assess the effectiveness of their integration.

- i. One of the interview questions asked teachers how they know their methods for biblical worldview integration were implemented effectively. As teachers reflected on this area, two themes emerged. The first was that half of the teachers said they did not know if they were

effective and were unsure how to measure effectiveness. The math teacher said, “I think it’s difficult to say how we know how effective we know that it is. I think we have the little moments when we see those things that stand out to us.” Similarly, the foreign language teacher responded:

It’s hard to tell, honestly. . . . Like, they may have an assessment and it will demonstrate their understanding of it. But again, this is an intellectual understanding for the most part. Like, many of them may express some understanding but I don’t really know if they’re being honest about it or if it’s a bit disingenuous. Like they’re trying to write what I want to hear.

These teachers’ responses demonstrated the difficulty of determining an individual’s worldview, as the individual may have chosen to be disingenuous. This is of particular concern with regard to Thai students because they do not consider it morally wrong to lie in many situations (Komin, 1990).

The other finding from this question of effectiveness was all 10 teachers had some form of formal student performance relating to biblical worldview integration. Most commonly, the teachers asked the students to participate in a graded discussion or to complete a graded writing assignment. The performing arts teacher and social studies teacher used journaling as a form of formal integration. The social studies teacher said, “I am able to kind of gauge where is their thought process on it, are they kind of following it. . . . I want to be able to see kids working through the lesson and building on understanding.” Journaling and writing assignments were often followed up by discussions to deepen students’ understandings. With writing assignments in language arts, the teacher said, “I try to make sure that I ask a question in a way that they need to explain it. . . . And then, also, I like having some type of follow up discussion.” Teachers who lead discussions or read an essay were searching for moments where students demonstrated their

abilities to integrate biblical ideas into the concept. The performing arts teacher described one of these moments:

Oftentimes we have class discussions and I can gauge what is happening. For example, we had an Indian kid in one of our spider-webs who was not a believer who sat there and argued for Christianity in one of our things, even though it wasn't really the main topic but the subject matter was close enough to it.

As the math teacher said, "Those happen few and far between for the most part, but when you do see them, there's no doubt that those kids got what it was that you were talking about."

Four of the teachers said they could only determine effectiveness when they saw a change in the way the students acted long-term, implying they looked for a change in the students' worldview enough to impact their behavior. However, the performing arts teacher said it best, "We're more the seed planters, . . . In middle school. A lot of times we see some fruit in the—we see some kids become Christians, like [redacted], but a lot of times, . . . we see a lot of it happen later." Worldviews develop over time, and these teachers thought of the long-term effect of biblical worldview integration for lasting change. The foreign language teacher said, "Sometimes we hear after the fact that it has had some impact. That the nature of our teaching . . . will point to the fact that it has been beneficial. But it's not always immediately obvious." Persistent change in students' worldviews, while pointing to effectiveness in biblical worldview integration, was difficult to determine because most teachers only taught their students for one or two school years.

Effectiveness in worldview integration was also difficult to determine, as three teachers pointed-out, because of the possibility students may say and write what they think the teacher wants to hear, not what they believe, so any method for evaluating effectiveness would be irrelevant. The foreign language teacher recommended using caution believing the change in students because, "I have seen a tendency of students to write or say things that they think the

teacher wants to her rather than what they actually believe.” The math teacher echoed this sentiment, “Oftentimes, you get just a sort of that Sunday school answer, ‘I know the teacher wants me to talk about this, so I’m going to give that to him.’” These teachers knew that it was important to remember that some students would do things just for a grade or to try to impress the teacher, but effectiveness was about real, lasting change. The methods used to evaluate the perceived effectiveness of biblical worldview integration by teachers related to the range of purposes described by teachers earlier in the interviews.

The perspective the teachers had of biblical worldview integration determined effectiveness. Teachers indicated some negative perceptions of integration; three teachers described their uncertain techniques for implementation and five teachers expressed concern they would like to integrate more but did not have the time to do so. Some of the teachers described the lack of time as being due to having too much content to get through. The math teacher said:

I think oftentimes things get so bogged down by trying to meet certain deadlines and trying to fit certain criteria and curriculum into the amount of time that we have that it can be very easy to lose that connection.

Others commented they did not have enough time to focus on planning new ways to integrate. This was the biggest concern of the science teacher, who said that he doesn’t integrate as often as he wants. “It’s probably like grading mixed with other things that I’ll put on my priority list like exercise and other business.” This was followed by a statement about “feeling a little unoriginal too with how to put it in well, or feeling like I don’t have ideas with how to seamlessly put it in.” Teachers felt that time and lack of knowledge hindered their ability to plan more opportunities for implementing biblical worldview integration, so they depended on spontaneous moments in class.

Even though they found it challenging, five of the teachers talked about the value of integration and expressed concern they were not doing it as well as they should be. The math teacher said:

I think in the long run, if we as Christians and teachers are being honest with ourselves, we need to be in prayer as we doing our lesson plans and as we're actually teaching the lesson, looking for those connections.

The physical education teacher talked about the importance of integrating the Bible into our actions and carry that into the way he taught. He stated, "I think it's very important to bring it back to the foundational reason of why, which is based in the Bible, rather than just teaching good principles for the sake of teaching them." The theme that emerged when teachers talked about their ability to integrate effectively was its importance and the lack of time to do it well.

Teachers perceived differently students reacting to biblical worldview integration. Four of the teachers talked about the neutral attitude of students, demonstrated by student comments that focused on how many sentences need to be included in the writing assignment or their blank stares during discussion. The science teacher gave this description of Thai Buddhist students during a biblical worldview integration lesson, "There's, we all see this general glazing over of the students. Some of the parents are telling them not to listen." The physical education teacher gave a similar description but of student responses in general, "I think some people just totally tune out and they probably get frustrated because they don't understand why you would talk about God and the Bible in a PE class." Eyes glaze over and students tuning out not necessarily uncommon in a middle school classroom, but it was one of the outcomes teachers experienced in their attempts at integration.

Five of the 10 teachers thought students had an overall positive attitude toward biblical worldview integration; most of them could cite specific examples of successful discussions

assignments or observations of students. The learning support teacher said, “With some students I’ve seen an openness to seeing Christianity as something that’s good. . . . They feel like okay this is a good teaching. This is good morals. I never see them feeling that opposed to it.” The Thai teacher spoke of when the class was learning about Thai culture and were relating it to experiences the students had when they first moved to Thailand. A student shared about feeling left out and said, “One student invited that student to come and stand in the middle and all together and they all come and pray for that student.” Teachers gave examples of students who hate, are neutral toward, or enjoy biblical worldview integration. The perception a teacher had of student responses to biblical worldview integration may have influenced the examples chosen to share during the interview.

The language arts teacher shared differentiation methods to support the students who were new to the school. She noticed the students who have been at the school since early elementary have a strong foundation of biblical knowledge but the newer students, especially those from non-Christian families, needed support when completing biblical worldview integration assignments. “I try to organize those groups in a way where I know that they’re the same. You know, that it’s not all the kid who are super familiar with the Bible are in the same group.” She followed this up:

My 6th graders, if they’ve been here since the beginning, they have 2 years less compared to the 8th graders if they’ve been here from the beginning, so there just the amount of practice they’ve had or the familiarity with the Bible may have been longer or stronger. This showed the effectiveness of integration efforts at the participating school, at least in their ability to ensure students have a factual knowledge base for the Bible and the ability to use that knowledge in a variety of contexts.

The teachers often described more explicit methods when working with Grade 6 students and implicit strategies with Grade 8 students, citing the ability of the older students to make deeper

and more complete connections than their younger peers. The foreign language teacher said, “I feel like with the younger students that I teach I have to be more explicit for them to actually get the point.” Similarly, the performing arts teacher said, “With the younger grades I might be more specific. With the 8th grade I might be a little bit more ambiguous and not really say it. Hopefully wait for the lightbulb to go off, so to speak.” Teachers who had students of multiple grade levels agreed that the biblical ideas in Grade 6 and Grade 7 might not be different than what was used in Grade 8, but the expectation was that Grade 8 students were able to think more deeply than their younger peers.

Examples of biblical worldview integration with Thai Buddhist students were described with different outcomes. Several teachers described experiences with Thai students that demonstrated a lack of desire to incorporate a biblical worldview. Several teachers gave examples of students avoiding the core part of an assignment by evading aspects of the question related to Christianity. The foreign language teacher recalled, “Reading some essays from Thai Buddhist students that . . . took a very historical tack to their essays, which actually were intended for them to reflect on biblical principles that were imbedded in the lesson.” Another example of Thai students avoiding the biblical part of an assignment was given by the learning support teacher, who said, “In the reflection they, for example, might not even talk about the Bible verse at all even though that’s like a big part of what the assignment is to do.” Some Thai students simply chose to avoid the biblical worldview whenever possible. Other teachers gave examples of Thai students who seemed to have a negative perspective of biblical worldview integration. The science teacher, for example, described Thai students having eyes glazed over as soon as the Bible is mentioned, “Overall, blank stare. If there’s eye contact at all. Usually, a kind of general stare over or gaze away. ‘When will this be over?’ mentality. Although that changes throughout the year.” He

explained that Thai students reacted differently later in the year based on a developing relationship with him as a teacher.

Some of the teachers described the importance of teacher and student relationships when they gave examples of the impact of biblical worldview integration with Thai Buddhist students. Five teachers, such as the social studies teacher, described an openness Thai students had when they developed a positive relationship with the teacher: “I’ve seen my Buddhist students engage in it well and best if they, if I have a good report with them. But I see that with a lot of lessons, especially if I’m wanting to take them deep into something that’s uncomfortable.” These students were more willing to listen, engaged in a class discussion, and asked meaningful questions. The social studies teacher gave an example of a specific Thai student:

Student A who loves me, I love her, we love each other. And she is curious. Her family is very Buddhist and so it’s very important to her as well but whenever we begin to discuss things in this world that are affected by human sin and how this is not the way the world is supposed to be and that there is hope and there is movement away from it and there is redemption. I can see that she’s not turning off. She’s not closing off her ability to approach discussion and to discuss things that are important to both me and to her.

The science, physical education, performing arts, and math teachers talked about these important relationships. This correlated with the findings of Sherr et al. (2007), whose research found that students responded more positively to faith and learning integration when they had positive relationships with their instructors.

Conversely, the performing arts teacher described the impact of negative interactions a student may have had with a teacher that caused the student to view Christians as hypocrites and therefore, doubted the ability of the gospel to change the lives of believers:

I'm a watch how I act rather than always how I speak. Which I've learned in my long time teaching it's almost goes more so than just speaking. Because we screw up too many times. We say we're one way and then we go out and do another thing. And the kids have seen it and told me about it.

Students watched the behaviors of their teachers to find out if they were following the same rules they laid out for their students. The importance of positive teacher and student relationships was a common theme throughout the teacher and parent interviews.

Parent interviews. Eight parents chose to participate in this study by volunteering to be interviewed. Of these eight parents, three were Thai and five were American. Transcripts from their interviews were coded and analyzed for emerging themes, such as the mission of the school, the impact the school had on a child's personality and academics, and the positive influence of strong parent and teacher connections.

More than half of the families who attended the participating school are non-Christian, and yet they sent their children to a Christian school where daily they were taught about the Christian faith and the Bible. For this reason, parents were asked why they sent their children to the participating school when they had hundreds of international schools to choose from. The most common reasons were Christianity and community.

Five parents said the main reason they sent their child to this school was because it was a Christian school that emphasized faith and the Bible. One of these parents was a Thai Buddhist mother who said, "From what is seen from the outside, it is a Christian school teaching Bible. . . . We do believe that all religions want us to be a good member of the society by teaching how to behave well and live happily" (quote translated from Thai). Another Thai parent said, "I'm the first-generation Christian, so my husband is still not. He's not a believer. So, since we have

children, we just—I want to raise the children in the Christian way.” Whether Christian or not, all but one parent made references to Christianity in their interview.

Five parents said community was an important factor when choosing the school. They observed that the community of the school was positive and nurturing, helped children feel valued, and helped students feel happy about going to school. Parent D, a Thai parent, said, “I also like the first time I came to [name redacted] just for the survey for observing the school, I fell in love with the community that [name redacted] provide.” Parent B said, “the environment and the community is very positive and nurturing overall to students and to their identity as people.” Other reasons for sending their children to school parents mentioned included it was an American school, the academics and activities available, the location, financial reasons, friend recommendations, and agreeing with the mission of the school.

Parents were asked about the mission of the school from their perspective. A school that implements biblical worldview integration should have the Bible and Christianity as a part of their mission and core values. If Christianity or the Bible were consistently not mentioned by the parents, it may mean biblical worldview integration was not being effectively implemented. All but one of the Thai Buddhist parents mentioned the Bible, biblical worldview, or Christianity as a part of their explanation of the school’s mission. One of the Thai Buddhist parents said:

[The participating school] presents Christian perspective leading us to believe in the love of God. . . . School is expected to be a community for learning and knowing the love of God. With God guiding your way, the student will become a lifelong learner who can set their own target and know how to evaluate their own progress.

This parent understood the purpose of the school was to focus on God from a Christian perspective and to let that lead everything else, which was what one would expect for a school that implemented biblical worldview integration.

In addition to Christianity, four parents mentioned a high-quality education and building lifelong learners, three mentioned working with parents, and three included the necessity of teaching the whole child as opposed to focusing only on the child's intellect. Parent B said the mission of the school was, "To provide quality education with the foundation of a biblical worldview, creating students who will be responsible citizens of the world and lifelong learners." One of the Thai Buddhist parents, Parent H, said:

School is expected to be a community for learning and knowing the love of God. With God guiding your way, the student will become a lifelong learner who can set their own target and know how to evaluate their own progress.

The parents understood the way the teachers and staff focused on teaching from a Christian perspective.

Worldviews develop over time and influence the thoughts and actions an individual has. A change in worldview of a person should be evident to the people closest to the individual, in this case the parent should be able to see a change in their child. For this reason, the parents were asked about the perceived impact of the curriculum and mission of the school on their child.

Five parents, including both Thai Buddhist parents, said the school had a positive impact on the personality of their child. A Thai parent, Parent D, said:

He love[s] his friends, he love[s] his teachers. He always—it reflect[s] his personality.

From the start he becomes to have a leadership. He becomes to know how to manageable his schedule too. . . . A lot of confidence in him.

Some of the parents said their children were happy to go to school, gained leadership skills, were more confident, prouder of themselves, willing to sacrifice for others, and valued coexistence with others.

Several Christian parents mentioned their children becoming stronger in their faith, being willing to talk about their faith to their peers who were not Christians, and having a stronger personal relationship with God because of the discipleship and curriculum opportunities at the school. This was evident in Parent E's comment, "My son has become more aware of those around him who don't know Jesus. He has voiced his concern for friends and has engaged with others about their beliefs with a desire to share Christ with them." Parent F said, "Because the other students aren't Christians, it gives them opportunities to be self-examining in their own faith and what does that look like in terms of a secular student body." Many of the Christian parents are missionaries, so this was an important aspect of their children's development.

Another noteworthy theme was in all three of the interviews with Thai parents. The parents placed great value on the morals and values their children demonstrated since going to the school. One parent gave an example of her son pointing out social issues and talking about ways to help, even when doing something routine like going to the grocery store. Another, Parent A, said, "I can see that she [my daughter] knows how to serve. That is important. And she knows how to forgive. And she learned to be a leader in something." Like many parents in Thailand, Parent D sent her son to extra lessons and tutoring sessions after school and on the weekends (Assana, Laohasiriwong, & Rangseekajee, 2017). She said that it was important for her that she has good teachers, because her son is with them for many hours every day. "A good teacher doesn't just provide good academics, but provide kindness. They have to provide, to give a child a good example to be a good adult. That's what I want, and I think I got that from here."

All the parents mentioned the difficulty of the curriculum. Some parents commented that their children were more confident learners and were more driven. Parent F said, "One of our kids who struggles academically to feel like he has such a great support network that he is growing up confident even though he has struggles with academics because there're so many avenues for

growth.” Other parents said their children were more stressed about school because of the high expectations of achievement. Because of the nature of a competitive school, Parent C said, “I like that, but I have to constantly balance that out. . . . I think it’s impacted them positively by making them work harder but also in certain classes and in certain teachers I think as well make it more difficult.” Finding balance between pushing children to succeed and giving them the opportunity to try new things was a goal in the middle school of the research site.

A final theme that was identified in six of the eight parent interviews was the importance of teachers who cared for their students, similar to the interviews with teachers. The parents identified teacher relationships as an important aspect of their child’s growth and development, specifying specific aspects of this relationship that impacted their child the most. Teachers build strong relationships with students by mentoring them, being available to talk through emotional and spiritual issues, and being an example of what is right to their students. Parent F commented on teacher relationships, “I think one of the biggest things has been outside of the classroom, teachers really engaging with our kids in areas of service but then like spiritual growth and leadership.” These relationships helped positively impact the children of three participating parents in areas of emotional and spiritual development. Two parents said the teachers caring for their students helped their children grow academically because of the extra support they can get after school, like Parent E. “We appreciate that our son is given the opportunity to go in to his classrooms after school to improve his understanding of the curriculum. . . . We are really thankful for this extra effort by the teachers.” Two parents said they could tell their children were loved well by their teachers and were given opportunities to thrive in a safe environment. This was a highlight for Parent C, “I’ve seen certain teachers come along side my kids and really love on them well. And I think that has been huge for individual teachers to really take notice of my child.”

Strong relationships with teachers seemed to be an important factor in having the maximum impact on students from the perspective of both parents and teachers.

Summary of the Results and Findings

Student surveys. Student surveys provided numeric data to help answer the three research questions through a Wilcoxon Signed-ranks test and a paired *t*-test analysis of pre- and post-survey data. The data were grouped in different ways according to the ethnic and religious backgrounds of the participating students. No matter which way the data were grouped, the analysis indicated no statistically significant change occurred in the worldview of the early adolescent students over the course of one semester, confirming the null hypotheses. This will be discussed in more detail in Chapter 5. More data were gathered in the teacher and parent interviews to triangulate the data and provide meaning to the results.

Teacher interviews. Interviews from participating teachers revealed several themes in the ways biblical worldview integration was perceived and implemented. Teachers at the participating school agreed biblical worldview integration was sharing the story of the Bible through every content area by incorporating biblical principles and making them applicable to the lives of the students. They stated a variety of purposes for biblical worldview integration, including making the Bible relevant, changing the worldview of students, making students think, dispelling myths about Christianity, and helping students understand the world. Most stated they were unsure how effective they were in implementing biblical worldview integration in their classroom, perhaps because of the large variation in the expressed purposes of biblical worldview integration. Although half of the teachers expressed concern that they did not know how to determine effectiveness, common methods to determine this were writing assignments, observation of students, and discussions. Almost all teachers wanted to use biblical worldview integration more often but were hindered by a lack of time or knowledge. Overall, teachers thought they were being

at least partly successful but would like more guidance in how to implement more effectively and more consistently.

There were several other significant themes identified in the teacher interviews. A common recurring theme was the importance of strong teacher and student relationships in effectively implementing biblical worldview integration, primarily because of the perception students were more open to listening and participating when they had a positive relationship with the teacher. This may also have led to the fact that most teachers used spontaneous discussion as their primary method of implementation. Questions focused on Thai students from Buddhist families had a variety of responses, indicating students responded in a variety of ways from very negative to very positive, demonstrated by the wide variety of examples provided by teachers in the interviews. There was no unifying theme presented by the interviewed teachers to indicate their belief that biblical worldview integration was being effectively implemented with Thai Buddhist students. However, most teachers agreed students were more willing to engage with a biblical worldview when they had a strong positive relationship with the teacher.

Parent interviews. Eight parents were interviewed to determine the impact of biblical worldview integration seen outside of the classroom. Three of the parents were Thai and five were American. Of the Thai parents, two were Buddhist, and the other was Christian. Seven of the eight interviewed parents mentioned Christianity, the Bible, or biblical worldview integration when describing the mission of the school. They also highlighted community, working with parents, teaching the whole child, and developing lifelong learners. Community was one of the main reasons five parents chose to send their children to the school. Five parents, including two of the Thai parents, decided to send their child to the participating school because of the Christian perspective. Other reasons for enrolling at the participating school included financial considerations, friend recommendations, and the quality of academics and after school activities.

Parents were asked about the impact of the school's curriculum and mission on their child. All but one of the parents talked about an increase in Christian faith when discussing the impact of the school on their child through either the mission of the school or the curriculum. They described positive influences on students' personalities, including their morals, leadership, and willingness to serve. Parents discussed the importance of positive relationships with their child and teachers, consistently indicating the impact this had on the development of their child. This stood out because it was often referenced in the teacher interviews at the school.

Chapter Summary

Student surveys, parent interviews, and teacher interviews provided results that worked together to provide a comprehensive view of the impact biblical worldview integration had on Thai Buddhist students. The pre- and post-surveys did not show any statistically significant change in student worldview over the course of a semester. Parent and teacher interviews provided a more comprehensive view of the impact integration had, with examples of students demonstrating a variety of attitudes and experiences with biblical worldview integration.

A thorough discussion of the data comprises most of Chapter 5. First, the results are summarized. These results are interpreted to give them meaning and correlated to the research questions. Results are related to the context of the study, allowing a more in-depth understanding of the data. Next, the results are discussed in relation to the literature found in the Literature Review section of Chapter 2. Limitations from the study are followed by the implications the results have for practice, policy, and theory. Recommendations are made for future research in the areas of biblical worldview integration. Finally, conclusions of the study are presented.

Chapter 5: Discussion and Conclusion

Introduction

Chapter 5 interprets the findings laid out in the previous chapter. This chapter is organized by first summarizing the results of the research study. Then, the results are presented in detail, interpreting the findings, and discussing the implications. Next, the results are discussed in relation to the literature in Chapter 2. Limitations of this study are discussed, followed by the implications of the results. Finally, recommendations are shared for further research along with study conclusions.

Summary of the Results

Three questions were used to guide the study.

RQ1: What is the impact of biblical worldview integration on the worldview of Thai

Buddhist middle school students at a Christian international school in Thailand?

RQ2: What is the difference in the impact of biblical worldview integration at this school

for Thai Buddhist students and for those from different religious and ethnic

backgrounds?

RQ3: What is the impact of biblical worldview integration in each of the three areas of a

worldview: emotional/spiritual, propositional knowledge, and behavioral?

Research was conducted in three parts to answer these questions. First, students completed a pre- and a post-survey to determine if a significant change occurred in their worldview over the semester. The worldview questions were grouped into three categories; emotional/spiritual, propositional knowledge, and behavioral based on Sire's (2004) definition of worldview. Second, 10 middle school teachers were interviewed. The interview responses answered questions about biblical worldview integration, including a definition, the purpose, the methods used, and perceived effectiveness of the integration. Third, eight parents of middle school students were

interviewed to determine what impact the mission and curriculum had on their children. Through the analysis of data gathered from these three groups this study sought answers to these guiding questions.

The results are grounded in theories of worldview and biblical worldview integration. Worldviews are comprised of the beliefs, thoughts, and actions of individuals (Sire, 2004). They develop over time, changing when individuals encounter a new view or theory, which challenges their previous way of thinking (Baumann, 2011). The worldview evolution follows the development of faith and identity, which are the core aspects of one's worldview. Educators' worldviews are expressed to their students in the way they present information and through their behaviors, often unintentionally (Esqueda, 2014; Holloway, 2014). Christian educators, however, often choose to intentionally integrate a biblical worldview into their teaching because they want their students to become Christians (Badley, 2012; Boele-de Bruin & de Muynck, 2017). Biblical worldview integration is a pedagogy used by Christian teachers who incorporate a biblical worldview into every aspect of their curriculum, no matter what subject they teach (MacCullough, 2012). This study took place at a Christian school in Thailand, whose teachers are all professing Christians who use the pedagogy of biblical worldview integration to develop a biblical worldview in their students.

The research gathered in this study seeks to answer an important question because it incorporates the worldview theories and the pedagogy of biblical worldview integration into a non-Christian culture. The results of the research, like the literature written about biblical worldview integration, highlight the importance of student-teacher relationships (Belcher, 2005; Lewis, 2015; Sherr et al., 2007). Literature also highlights the importance of students engaging in the integration process (Bailey, 2012; Baumann, 2011; Burton & Nwosu, 2003; Lawrence et al., 2005; Sabri et al., 2008). In their interviews, the eight participating teachers discussed this integration

method 14 times and gave examples of the effectiveness of the pedagogy. Some of these examples include students being able to give their own examples of connections between the Bible and the curriculum, students making connections to their own life, or the students' ability to answer questions that link the Bible and curriculum. The study results show no significant change in worldview over one semester, which correlates with Baumann (2011), who found worldviews take time to develop and require grappling with ideas, which conflict with preconceived notions. Parents and teachers possibly perceive change in students that does not exist, which is why no significant change was found in the results of the student surveys. Most of the results from the current study correlate with previous research.

This research took place during the second semester of the 2018–2019 school year and consisted of three parts. The first part was conducting a pre-survey with the participating middle-school students at the beginning of the semester. Five months later, at the end of the semester, the same students were given a post-survey. The two surveys were compared to determine how much change, if any, occurred in the student worldviews. The second part of the research involved interviews with 10 middle school teachers, each teaching a different content area. These interviews provided information about the teachers' understanding of biblical worldview integration, their methods for integrating a biblical worldview into their classes, and their perceptions on the impact it has on their students. Interviews were conducted with eight parents of middle-school students, the third part of the research. Parents provided insight into the way they perceive the mission, curriculum, and impact the school had on their children. The three methods of data collection provided a more complete picture of biblical worldview integration and its effectiveness as it was implemented at the participating school.

Results from the student pre- and post-surveys came in the form of numeric data. A higher number indicated a worldview that aligned more closely with a biblical worldview. Student scores

were analyzed using Wilcoxon Signed-ranks tests and paired *t*-tests, which were used to determine if a significant change occurred in the worldview of students from their first survey to their second. The surveys were analyzed in three groups: Thai participants, non-Thai participants, and American participants. The analysis revealed no significant change in the worldview of any group of students. The surveys were also analyzed as a group with all participating students, that also did not reveal a significant change in worldview. A final analysis was done of the student surveys by dividing them into three sections of worldview: emotional/spiritual, behavioral, and propositional knowledge. Data from each of the four groups of students were analyzed for change in these three areas of worldview. No significant change was found in any aspects of worldview during one semester.

Ten interviews with middle school teachers were conducted to provide context and meaning to the student survey results. Several trends were identified within the interviews. The participating teachers agreed on the definition of biblical worldview integration but had different understandings of its purpose. Most teachers described the purpose as guiding students into an understanding of the relevance of God and the Bible in their lives, although other purposes were described. These purposes included changing the worldview of students, sharing the Gospel with students, connecting students with the Creator, and dispelling myths students have about Christianity. Most teachers felt they did not have enough time or training to integrate a biblical worldview as often as they would like. Most of the participating teachers expressed concern they did not know how effective their integration was. A theme that emerged from the teacher interviews is the importance of strong teacher–student relationships. Teachers gave examples of students being more willing to challenge their personal worldview and to ask meaningful questions when they have a strong relationship with the teacher. This sentiment was a strong theme in parent interviews as well.

Interviews were conducted with eight parents of Grade 8 students. The parents talked about the importance of teacher–student relationships in their children’s development. These relationships were part of the reason some of the parents chose to send their child to the school. Positive teacher–student relationships were cited as the cause of many positive changes parents experienced with their children in the areas of morality, spirituality, and academia. Parents gave examples of the school positively impacting their child’s spirituality, morality, and personality through the school’s mission and curriculum. Some of the positive impacts included students developing leadership skills, becoming more confident, developing a stronger Christian faith, and learning to forgive others. These themes describe some changes in the worldview of students due, at least in part, to their enrollment at the school.

Discussion of the Results

In this section the results are interpreted, then focus is brought back to the three research questions. The purpose of this study was to determine if the pedagogy of biblical worldview integration is effective in developing a more biblical worldview in middle school students at an international school in Thailand. The results must be analyzed in the context of the study, including an analysis of why the results may have occurred as they did.

Interpretation of results. The student survey results showed no significant change in students’ worldviews during one semester, likely because of the study’s short time frame. Baumann (2011) and Sire (2004) claimed worldviews take time to develop. This study took place over five months, limiting the amount of change that could take place in an individual’s worldview. However, these results may mean the pedagogy of biblical worldview integration is ineffective and has no impact on the students. The researcher believes a more accurate claim is the study was inconclusive due to the limited time frame.

Survey results were similar from the pre-survey to the post-survey but demonstrated differences among the worldviews of different student groups. Christian American students had a mean score of $M = 234.75$, while Thai students had a mean score of $M = 196.23$. The lower score of Thai students indicates a less biblical worldview than their Christian American peers. This difference was expected because of the cultural differences between Thai and American subjects and significant differences between Buddhist and Christian beliefs. These differences were evident in the results of the worldview survey and may indicate the survey instrument was valid.

Findings from teacher interviews point to how teachers are trained in biblical worldview integration. Interviews revealed common definitions of biblical worldview integration but different intended purposes of the pedagogy among the teachers. Expressing similar definitions of biblical worldview integration suggests the need for staff training that focuses on the purpose of biblical worldview integration and how to implement it. Most of the teachers used common methods of integrating including discussions, adding biblical themes, and asking impactful questions. The training may not focus on the reason for integration other than reaching students for Christ. Teachers commonly expressed a lack of clarity on how to determine if biblical worldview integration was being implemented effectively or not. However, teachers wanted their students to become Christians, which correlates with research by Boele-de Bruin and de Muynck (2017). These findings indicate biblical worldview integration training focuses on what it is and some examples of how to do it, without spending a lot of time training teachers on what makes the training effective and how to measure the results.

Thai culture may have a significant impact on measuring biblical worldview integration through discussion or written assignments. Saving face is an important aspect of Thai culture, as well as ensuring those in a higher respect level than you are not losing face (Komin, 1990). Thai students are taught to defer to their teachers and to respect them, not to challenge them. (Deveney,

2005). Therefore, Thai students may say or write with a biblical worldview because they think teachers want them to, not because it is what they believe to be true. Three teachers felt the students were simply repeating what the teacher believed to get a good grade or to please the teacher. The culture of saving face and respecting elders may also be the reason student-teacher relationships were described as a key aspect of helping students change their worldview. Students who have more respect and affection for a particular teacher may be more willing to accept his or her guidance about issues of faith and worldview. Saving face and respect through obedience are two concerns, which highlight the importance of knowing the culture of the students, building a relationship with them, and looking for long-term change.

A key finding of the study is the importance of strong teacher–student relationships, which was emphasized in both teacher and student interviews. Parent F said, “For one of our kids who struggles academically to feel like he has such a great support network that he is growing up confident even though he struggles with academics.” Teachers often discussed relationships with their students in the context of student receptivity to discuss spiritual or personal questions and opening the door for more in-depth conversations, which integrate a biblical worldview. Parents said strong relationships with teachers influenced their children to develop spiritually, morally, academically, and personally, which are important aspects of an individual’s worldview (Sire, 2004). Therefore, teachers who want to help their students develop a biblical worldview should invest in building strong relationships with their students. This includes interactions outside of the classroom and living the principles they teach their students. As stated by the performing arts teacher, “Kids look at us a lot and how we act, especially in bad situations.” Biblical worldview integration is more effective with strong teacher–student relationships.

The evidence of student worldview development is based on changes that parents perceived; however, the change is not consistent enough to claim biblical worldview integration is

effective. Parents gave examples of change in their children's personality, faith development, and morals. For example, Parent A said that her daughter learned how to serve and forgive others because of her education at the school. Another parent gave examples of her son wanting to share the Gospel with his peers who are not Christians. Moral and worldview development are linked because morals are a part of an individual's worldview (Van der Kooij et al., 2015). The morals of Thai students showed evidence of change based on the interviews of Thai parents. When talking about her son, Parent D said, "I think he learned to provide help, to provide support the others." She gave examples of his new awareness of social issues and his desire to help solve them. Some parents, like Parent E, gave examples of their children developing a biblical worldview through growing stronger in their faith. "My son has become more aware of those around him who don't know Jesus. He has voiced his concern for friends and has engaged with others about their beliefs with a desire to share Christ with them." The examples parents gave of change in their children demonstrates a change in worldview because it impacts the children's actions. Therefore, student worldviews appear to become more biblical because of biblical worldview integration. However, insufficient evidence exists to state all or most students will be impacted in the same way.

Results based on the research questions. Answering the RQ1 requires an interpretation of the results based on the effectiveness of biblical worldview integration with Thai Buddhist students. The worldview survey shows no significant change in worldview over the course of one semester for Thai participants. However, changes occurred as described by both teachers and parents that pertained to Thai students. Parent H, a Thai Buddhist parent, said her child grew in the areas of leadership, generosity, being sacrificial, and co-existing. Parent D, also a Thai Buddhist parent, identified changes in her child in areas of community service, social awareness, confidence, and leadership. Teachers gave several examples of Thai students who demonstrated change or willingness to alter their actions, discussions, and thoughts. For example, the social

studies teacher found one of the Thai students was willing to engage in deep conversations about biblical matters because of their strong relationship. However, some Thai Buddhist students actively avoided any change. Some were unwilling even to engage with Christian ideas, like the example given by the language arts teacher whose student would skip parts of an assignment because they were about the Bible. The results show some Thai students may develop a more biblical worldview. However, insufficient evidence exists to conclude biblical worldview integration impacts the worldview of Thai Buddhist students.

RQ2 focuses on the difference in the impact of biblical worldview integration between Thai Buddhist students and students from other ethnic and religious backgrounds. The student worldview survey data were analyzed in four groups: Thai students, non-Thai students, Christian American students, and all students. Comparing the pre- and post-survey scores in each group revealed no significant change in student worldview of any group. The mean worldview scores were highest for the Christian American students and lowest for the Thai Buddhist students, indicating a difference in worldview between these groups of students. However, the impact of biblical worldview integration shows no significant change in any group of students.

RQ3 focuses on the three areas of worldview; emotional and spiritual, propositional knowledge, and behavioral. An analysis of student survey results showed no significant change in any of these areas during the semester. Teacher interviews showed more signs of change in propositional knowledge than in other areas. The teachers cited examples of students gaining biblical knowledge or knowing what to say about a biblical worldview than they showed in their actions. For example, the performing arts teacher gave an example of a Hindu student who chose to defend a biblical argument during a debate, which illustrated his knowledge of the Bible and biblical concepts. Parents gave examples of their children thinking and acting differently. For example, two parents noticed their children took their faith more seriously and started to

evangelize to their non-Christian friends. Thai parents gave examples of their children taking the initiative to do community service, forgiving others, and becoming a leader. These examples show some students demonstrated a change in worldview. However, not enough data exists to conclude one area of worldview is impacted more than any other when implementing biblical worldview integration.

Context of the study. Within the context of the study, unforeseen circumstances may have impacted the results. At the end of January, participating Grade 8 students were in the computer lab to take the pre-survey, which was sent through a link to their email accounts. Within five minutes of the period starting, the principal announced an unexpected school closing for the next two days. This situation disrupted data collection. During the same time period, technical difficulties caused more than half of the surveys to be lost. When evident the surveys could not be recovered, I asked the participating students through email and through their advisory teachers to retake the survey. Only a few students elected to do so, resulting in significantly fewer Grade 8 students participating than students in Grades 6 or 7. This may have impacted the results of the study because the Grade 8 students are at an age where children often develop to a more advanced stage of religious and moral reasoning (Fowler & Dell, as cited in Roehlkepartain et al., 2006; Kohlberg & Hersh, 1977). This may also be the reason the participating parents, all of Grade 8 students, were able to cite evidence of their children changing because of their experiences at the participating school. Therefore, students in Grade 8 may have been the group that would have showed the most change in their worldview.

Another unexpected situation arose in the process of data conduction. Only a few Thai parents were willing to be interviewed. Parents were sent physical forms written in both Thai and English and three emails to invite parents to participate, also in Thai and English. Few parents responded, perhaps due to one of three probable reasons. The first may be cultural differences.

Thai parents may feel uncomfortable being interviewed because they do not want to lose face or do not want to have a confrontation about anything that may cause offense. Secondly, some Thai parents may have chosen not to participate because of the language barrier, even though they were told a Thai translator would be available. A third reason may be the common Thai practice of working 10 to 12 hours each day. This schedule leaves little time for extra activities, making an interview impossible. To account for these problems, I gave the parents the option of answering the research questions through email and in their native language. One Thai parent chose to participate this way. The lack of Thai parent participants may have impacted the results by missing important examples, which would point to students' worldviews being developed. It is unclear if more Thai participants would have resulted in a higher percentage of Thai students who were positively impacted or of Thai students who experienced no change in their worldview.

Discussion of the Results in Relation to the Literature

The results of the study correspond to previous research conducted on biblical worldview integration, religious education, and Thai culture. The unique setting and population limit the ability to apply these results to other situations. There is, however, value in results that confirm the findings of previous research. The connection between the results of this study and the literature are discussed in the following section.

Worldview. The results of this study show no significant change in the biblical worldview of early adolescent students during one semester. Baumann (2011) emphasized worldviews take time to develop, therefore the lack of change in students' worldviews could be expected. The worldview survey with students was considered an important aspect of this study because adolescents experience a lot of change in the areas of faith and morality (DeVries et al., 2000; Fowler & Dell, as cited in Roehlkepartain et al., 2006; Kohlberg & Hersh, 1977). Almost all the discovered research on biblical worldview integration and worldview was conducted with students

in high school or college, so it was unclear if the worldviews of adolescents would change more quickly during this important developmental time. Ideally, the study would take place over a longer time period; however, the one-semester time frame was chosen because it was the length of time the researcher had access to the research site.

Worldviews change when students are encouraged to work through an issue or theory, which challenges what they previously believed. Sire (2004) described the process of developing worldview as beginning with intuitive assumptions about the world based on the beliefs and culture of one's parents. Worldviews change as individuals challenge the ideas of their parents and community, either intentionally or unintentionally. In some instances, as seen in the results of this study, those changes come from working through challenging questions in science and social studies. In other students, change occurred after seeing issues from another person's perspective in a skit in a performing arts class. Most commonly, students' perceptions changed because of interactions with teachers with whom they have a strong relationship. These relationships likely build the trust necessary for students to be willing to critically analyze their own thought patterns and beliefs. Baumann (2011) encouraged teachers to provide opportunities to grapple with these difficult or challenging topics on a regular basis. Even encountering differences daily, worldviews will likely change more slowly than can be measured in a few months.

Biblical worldview integration. One of the study findings demonstrated teachers' desire to have more time and training devoted to biblical worldview integration. Half of the teachers expressed this concern. Similarly, the results of Horan's (2017) study showed teachers, also using biblical worldview integration, felt they needed more training or more time to be effective. Horan recognized personal relationships were the most effective method for reaching students, but a lack of time and training hindered the development of those relationships. Many of the teachers in this study gave examples of personal relationships they had with students and the impact those

relationships have on effectiveness. The social studies teacher gave an example of a strong relationship she has with a Thai Buddhist student, allowing her to have meaningful conversations about faith, suffering, and other difficult topics. Another example was given by the performing arts teacher, who said that no teacher can be close with every student, but every teacher can be close with a group of students, thus increasing the possibility of every student having close teacher–student relationships. Having more time and training set aside for biblical worldview integration may allow teachers to incorporate integration methods that also develop relationships.

Teachers and parents agreed personal relationships between teachers and students were a key component to positive change in students. Parent E said, “Our family has been encouraged by the teachers; their desire to impact their students with Christlikeness, genuine love and care gives us confidence that [our son’s] character as well as his knowledge is being impacted positively.” In her literature review, Belcher (2005) discussed books and articles on worldview, specifically written for educators. One of the suggestions she made to educators who want to integrate worldview in their class was to build relationships with students. By forging strong relationships, a teacher becomes a mentor who leads by example (Belcher, 2005). This relates to the findings of this study of the importance of relationships as told by the teachers. The social studies teacher, for example, provided an example of a student who was open to ask questions about Christianity and aspects of a Christian worldview because she was comfortable with the teacher. The performing arts teacher said, “Some students are never going to be my friend or my close little confidant. No, but I’m going to have my group that is close to me and that I can sit and have a conversation with.” These teachers cannot be mentors to each of their 100 students, but they can forge intentional relationships with as many students as possible and pray for their other students to build those relationships with other teachers or coaches. It is possible these personal relationships are effective in changing the worldview of students, as opposed to the pedagogy of biblical worldview

integration. The combination of biblical worldview integration and positive student-teacher relationships may be the key to successful worldview change in students.

Personal relationships with students and a strong faith life were the two significant findings of Sherr et al. (2007) when researching the use of the pedagogy of the integration of faith and learning. Teachers must have a personal relationship with God, which is evident in their actions outside the classroom. Lewis's (2015) research echoed these findings, which found teachers' personal faith was a key factor in successful integration of faith and learning. Lewis concluded administrators should encourage a strong faith life in their teachers because it will help the school. A personal relationship with the Lord that is regularly being developed through Bible studies, church attendance, worship, and personal prayer allows teachers to continually develop their personal biblical worldviews. The parents who were interviewed found this to be an important aspect of how teachers impacted their children. "Since there is a focus by the faculty and staff to shine the light of Christ in a world who doesn't know him, my son has become more aware of those around him who don't know Jesus" (Parent E). These actions must carry into positive relationships with students, including the willingness to help students work through personal problems. Parent A said, "The teachers care about the students. If any kind of a problem, the teachers always are there for them and help our kids grow." The combination of strong personal faith in Christ and strong relationships with students, make biblical worldview integration more effective.

Bailey (2012) theorized it is more important for students to actively participate in the integration rather than only hear teachers make the biblical connections. Burton and Nwosu (2003) confirmed this research by determining students found more value in actively participating in integration efforts than simply listening to the teacher explain biblical connections. Lawrence et al. (2005) found evidence students need to have their own examples of integrating, as he found

most students were passive participants and did not get much out of the experience. Sabri et al. (2008) found theology classes designed to help integrate were effective when students had time to work on their own academic integration efforts, specifically when given time to apply the theological content to their personal lives.

In this study, teachers gave examples of effective implementation when students were actively engaged. The language arts teacher described when students were engaged in small group discussions and explorations finding connections between old songs and the Bible. Bailey (2012) stated students should integrate these interactions into their own lives to further develop their worldview. Teachers asked students to connect the content and the Bible to their lives. Some examples of this were of avoidance of applying biblical concepts to their life by Thai students, as described by the foreign language teacher. Other examples were of successful integration, like the social studies teacher who saw students make connections between racism during the Trail of Tears and modern racism in Thailand. When students were given time to relate the content to their own lives, they often demonstrated effectiveness of biblical worldview integration.

Religious education. Boele-de Bruin and de Muynck (2017) found Christian educators were united by the desire to help their students develop a personal relationship with Christ. The results from teacher interviews in my research corroborate this finding. The math teacher said, “I think that would be every Christian teacher’s heart’s desire, is that their kids would be . . . given the opportunity to hear the truth.” The aspiration to help students become strong Christians was evidenced in the way teachers described the purpose of biblical worldview integration. The Science teacher said, “It’s about sharing the whole story of the Bible and the Gospel interlinked with your content, as opposed to just on top of your content.” Parents also commented on how important building a Christian faith was to the teachers. All but one said the mission of the school is, at least in part, to strengthen the Christian faith of students.

Thai culture. Thai culture emphasizes conformity and obeying leaders, not critical thinking (Singsuriya et al., 2014). Komin (1990) researched aspects of Thai culture, including significant factors such as saving face, avoiding conflict, and being grateful. Deveney's (2005) research concluded Thai students at an international school have different expectations than students at a traditional Thai school. Consequently, the students who go to a Christian international school from the beginning of their academic studies act differently in the classroom than Thai students who transfer in. Teachers in this study commented on Thai students' responses to integration and parents talked about the importance of Thai students having good leaders to follow. The language arts teacher noted teachers need differentiation techniques for Thai students who had been a part of the school for a long time, as opposed to those who were new. Several teachers discussed Thai culture and gave examples of students taking the path of least resistance or avoiding a topic they disagree with. The foreign language teacher, for example, described a situation in which Thai students decided to ignore half of an assignment because they did not want to reflect on the biblical principles that they were being asked to incorporate. Half of the teachers commented they did not know how effective their biblical worldview integration was because Thai students tended to say what they think the teacher wants to hear. Thai culture influences people to do this with leaders so no one loses face. Therefore, the effectiveness of integration with Thai students is difficult to determine.

Hayden's (2010) research on international schools included the reason Thai parents send their children to international schools, which was to help their children become more multi-cultural, have a quality education, and learn English. This study showed similar reasons for Thai parents to send their children to this school. For example, Parent D said, "I really like the school that has lots of activities but never leave the academic behind." However, the Thai parents also

wanted their children to attend this international school because of the community, faith, and morals taught.

Limitations

This study's short time frame of six months was a significant limitation. A more substantial amount of time is needed for an individual's worldview to change (Baumann, 2011). Therefore, a longitudinal study should be used to determine if worldviews have changed. Access to the research site was only available for one semester, which is why the time frame was chosen. If this study were to be replicated, a time frame of two or three years is recommended, which would provide time for participating students to grapple with difficult concepts and work through challenging content. A longitudinal study would allow enough time for students' worldviews to change.

Another limitation was Thai culture. One of the strongest forces in Thai culture is the need to save face at all costs (Komin, 1990). An individual in a lower position of authority is expected to find a way for a person of higher authority to save face (Komin, 1990). In the teacher–student dynamic, students in Thai schools are expected to listen and observe without asking questions (Deveney, 2005). Thai students will say or do things to honor the teacher, even if it does not represent what the students think. This limits the research results of the Thai students, especially the examples drawn from parent and teacher interviews. This was described by the Foreign Language teacher who expressed doubt about the authenticity of student responses because of Thai culture. Culture may have impacted Thai students to say or do what they thought the teacher wanted them to, even if it did not align with what they believed. It is possible, for example, that the journal responses assessed in science or social studies represent ideas the students believe the teacher wants to hear, rather than the true beliefs of the students. This cultural influence may also

apply to the survey but to a lesser extent as the students knew the surveys were anonymous.

Further research in Thailand must be done with these cultural aspects in mind.

Implication of the Results for Practice, Policy, and Theory

Implications for practice. One implication of the study results is the importance of teacher–student relationships. Parents, teachers, and previous research agree strong, positive teacher–student relationships significantly impact the development of a student (Belcher, 2005; Lewis, 2015; Sherr et al., 2007). Conversely, negative relationships are detrimental to student growth. Educators should commit to know their students beyond their academic abilities. Teachers can maximize their impact by building relationships with their students, especially by providing opportunities for those students to talk about important personal issues when they need a mentor. Integration techniques can also be conducted in a way that builds relationships. For example, teachers can be vulnerable and share stories from their own lives, as described by the foreign language teacher. Informal discussions that incorporate biblical worldview ideas, as conducted with the fine arts teacher, may also help teachers build relationships and integrate a biblical worldview at the same time. Administrators and teachers should maximize their impact by using transitions, passing time, and lunch as opportunities to get to know their students more. These efforts will increase their ability to help students develop a more biblical worldview.

Biblical worldview integration should be implemented using instructional methods that engage students. The teachers in this study described many situations in which students were actively engaged in integration through discussion, writing assignments, and activities. When teachers gave examples of biblical worldview integration being effective, they had used these methods. For example, the social studies teacher uses journal entries and conversations to debrief biblical worldview topics, their integration into the content, and how they apply to the lives of the students. Other scholars who studied this pedagogy agreed student participation is the key to

success (Bailey, 2012; Burton & Nwosu, 2003; Lawrence et al., 2005). Consequently, worldview develops when an individual is encouraged to address an issue or theory previously held to be true (Sire, 2004). If a teacher is the one who makes every connection between the subject and the Bible, students are not being asked to confront anything in their own worldview. However, if the students are the ones asked to engage in the integration, they are encouraged to confront what they believe to be true and look at issues from a Christian perspective. Therefore, teachers should implement biblical worldview integration using methods that engage students and encourage them to integrate and apply a biblical worldview on their own.

Implication for policy. Another result of the findings is a worldview changes over time; therefore, a teacher should be consistent in the implementation of biblical worldview integration. The results of this study showed no significant change in worldview in one semester, which is consistent with the views of Sire (2004) and Baumann (2011) who discussed the development of worldview over time. The decision was made to conduct research over the course of only one semester for this study because it was the final semester the researcher had access to the research site. Worldviews change as individuals are confronted with ideas and situations which challenge their way of thinking (Baumann, 2011; Sire, 2004). It is possible that the lack of change in students' worldviews, as demonstrated in the survey results, means biblical worldview integration is ineffective. However, in this study, some evidence appeared of students' worldviews changing over time through the examples in teacher and parent interviews. For example, Parent A said that her daughter has learned how to forgive and serve others because of her education at the participating school. It should be considered that these examples were based on the perceptions of teachers and parents, which may be unintentionally biased. Educators who want to challenge their students' worldviews and help them develop a biblical worldview must do so consistently over many years. Teachers need consistent training, support, and time to be consistent in their

implementation efforts. They need to be prepared to see limited progress until several years have passed, as a person's worldview develops slowly. Administrators should find time to address these concerns in practical ways, so teachers and staff are united.

Implication for theory. The findings of this study have implications for the theory of biblical worldview integration. MacCullough (2012) developed a theory of biblical worldview integration that states the most effective method of integration is for teachers to intentionally integrate aspects of a biblical worldview into every lesson. The intent is that students will begin to understand connections between the world as the creation and the hand of the Creator, God (MacCullough, 2012). The findings of this study point more to the importance of personal relationships between teachers and students than integration in the content areas. This challenges the theory of biblical worldview integration, which focuses on curriculum development and implies that more time and energy should be used to develop relationships.

Recommendations for Further Research

Further research is recommended in biblical worldview integration. This research was conducted over a short period of time, which limited the amount of change that could occur in a student's worldview. This researcher recommends a longitudinal study be conducted over three years, which will provide ample time for students' worldviews to change. No research was found on biblical worldview integration spanning a time frame of more than one year; therefore, a multi-year study would be an important addition to the body of literature.

Further research should be conducted on the impact of biblical worldview integration, and other forms of religious education, in multicultural settings. One of the unique aspects of this study was its setting and population, because most research done on religious education is conducted with populations whose families and communities are predominantly Christian. Further

research be conducted in Christian schools in an international setting whose student populations are primarily non-Christian to determine what impact the school has in these areas.

Further research is needed in biblical worldview integration with early adolescents. Much of the research done on the integration of faith and learning and biblical worldview integration is conducted at the high school and university levels. This study is one of only a few studies conducted at the middle school level. Early adolescence is a formative time in a person's life and is important in determining the worldview the individual will have as an adult (DeVries et al., 2000; Fowler & Dell, as cited in Roehlkepartain et al., 2006; Kohlberg & Hersh, 1977). Additional studies at the middle school level will help determine the potential impact educators have at this critical level of development.

Further study on the relationship between biblical worldview development and student-teacher relationships is recommended. This study found a possible correlation between positive student-teacher relationships and changes toward a more biblical worldview in students. Biblical worldview integration focuses on a cognitive approach to changing worldview, while it may be more effective to focus on a relational approach. The impact of student-teacher relationships should be studied, specifically in regard to student worldview development, as it may be the aspect of education that impacts students the most.

This researcher also recommends that more research be conducted on biblical worldview as a topic. Many different definitions of biblical worldview exist and a variety of ways those definitions are interpreted. Individuals have their own experiences, causing them to interpret the Bible in a variety of ways (Kanitz, 2005). Before conducting further research on the development of a biblical worldview, more research is needed defining precisely what a biblical worldview entails. This would allow more specific questions to be asked to determine how biblically aligned an individual's worldview is. Must an individual with a biblical worldview believe that stealing is

wrong in every instance? Is there a time when lying is okay? Is it a requirement that an individual believes the world was created in exactly six 24-hour days for them to have a biblical worldview, or can they believe each day in the creation story represents a span of time much longer than 24-hours? How much should an individual's culture be considered? Should we expect a Thai Christian to have the same core worldview as an American Christian or a German Christian? Answering these questions and identifying the non-negotiable aspects of a biblical worldview is important for further study on the way worldview is developed.

Further study on the development of worldview is also recommended. Sire (2004) claims that individuals' worldviews, their core convictions about reality, guide their thoughts, beliefs, and actions. Conversely, Smith (2009) states liturgies, meaningful actions guided by desires, shape an individual's thoughts and beliefs. Sire's definition implies that teachers can change the worldviews of their students through cognitive pursuits such as teaching facts or challenging discussions. Smith's definition implies teachers who want to change their students' worldviews should find ways to engage their students in meaningful actions that will in turn guide their desires and, therefore, their worldviews. Further research is needed to determine which of these views most accurately correlates to the way worldviews are developed and which is more effective to implement in an educational setting.

Conclusion

Biblical worldview integration was studied during the second semester of the 2018–19 school year at a Christian international school in Thailand. Three elements of research were used. In the first element, student participants took pre- and post-surveys to identify changes in their worldview. The second and third elements were interviews conducted with 10 teachers and eight parents. Teacher interviews focused on the teachers' understanding of biblical worldview integration, methods they used, and their perception of effectiveness. Parent interviews focused on

their reasons for choosing the school, their understanding of the school's mission, and the perceived impact the mission and curriculum of the school have had on their child. The data gathered was used to answer the three research questions.

This study was guided by three research questions. RQ1 asked about the impact of biblical worldview integration on the worldview of Thai students. RQ2 focused on the impact of biblical worldview integration on different groups of students based on religious and ethnic backgrounds. RQ3 asked about the impact in each of the three areas of worldview; emotional and spiritual, propositional knowledge, and behavioral. Data demonstrated no significant impact on the worldview of any participating students in any area of worldview over the course of the study. The interviews provided evidence some students' worldviews change because of biblical worldview integration over time. However, insufficient evidence existed to determine how frequently worldview change occurs or how long it takes. It is also possible the examples provided in the interviews show teacher and parent bias based on their desire for students to develop biblically. Using this data from the study, researchers may not be able to determine that biblical worldview integration is effective as implemented at the participating school.

One of the key findings from the data is the students need to engage in integration if it is to be effective. Worldviews change as the result of confronting preconceived notions and grappling with new ideas (Baumann, 2011; Sire, 2004). When teachers use methods that provide opportunities for students to engage in integration by applying aspects of a biblical worldview to their learning and to their personal life, the students are forced to grapple with these new ideas in meaningful ways. Teacher interviews provided examples of students demonstrating this through writing assignments, discussions, and group work. Students must be active participants in biblical worldview integration for their worldview to change.

Another important finding is teacher–student relationships are essential for positive student change. Any positive impact on students’ worldviews may occur because of these relationships as opposed to biblical worldview integration. Interviews from the majority of both parents and teachers provided data demonstrating the importance of teacher–student relationships. Students who have strong connections with their teachers showed positive growth in academics, personality, morality, leadership, and spirituality. These areas are some of the key parts of an individual’s worldview; therefore, strong teacher–student relationships can change the worldview of the student (Sire, 2004; Valk, 2012; Van der Kooij et al., 2015). These findings corroborate the research conducted by Belcher (2005), Lewis (2015), and Sherr et al. (2007). Educators who want to make a positive and lasting impact on their students must be intentional about forming strong relationships.

The third key finding from this research is Thai culture makes it difficult to conclusively determine change in worldview. A large part of Thai culture is saving face, including helping others to save face (Komin, 1990). Thai students are taught to be obedient and never to question the teacher, as it would cause the teacher to lose face (Deveney, 2005). In the case of international schools in which teachers express a desire for students to ask questions, Thai students may begin to feel comfortable doing so over time (Deveney, 2005). These cultural norms mean the words and actions of students are often dissimilar around different people. If a teacher is looking for evidence of a biblical worldview in a Thai students’ writing assignment or graded discussion, they must be careful as the student may say what they think the teacher wants to hear. Consequently, it is difficult to determine the worldview of Thai students because of the cultural norm of saving face.

This study adds to the body of research on biblical worldview integration by providing research on the impact of biblical worldview integration in early adolescence, a commonly overlooked age group in the study of the integration of faith and learning. Educators can increase

their ability to positively impact their students' worldviews by increasing the active engagement of students in the integration process and forming positive interpersonal relationships with students. While the findings were limited, due in large part to the short time frame of the study, educators and scholars may use these findings in collaboration with other studies in the field.

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Appendix A: Student Participant Consent Form

Dear Parents and Guardians,

I am writing because I will be conducting research at [redacted]. I will ask your children to answer some questions in a survey. Working with your child's advisory teachers, I will ask them to complete a survey in the beginning of second quarter, and again in May. The reason I am doing this is to determine if specific teaching methods we use are effective. I am working in this study, as the lead investigator, as my graduate level research with Concordia University–Portland, with Professor David Kluth as my faculty advisor.

Your child will take a survey twice, once in January and once in May. This will be done during advisory time in school. Your child will not miss instructional class time. If your child does not want to this, or you do not want your child to do this, then your child can do his/her homework as an alternative during this time. This activity will take approximately 20 minutes for each session.

Your child does not have to do this. It is optional. There will be no penalty for not participating. In the same way, there is no advantage or favoritism for your child participating. If your child wants to stop participating, he or she can stop even if he or she is in the middle of the activity.

The activity for this study is scheduled for January 2019 and May 2019. We expect 260 students to participate.

The results will be collected in a way that protects the student's identity. The name and other identifying characteristics of your child will not be stored with the answers/observations specific to you or your child. To do this, your child will choose a five-digit code. The code, and not the name or other identifying characteristic, will be stored with this private information. Reports will be made in group aggregate form; such as, the average and general group findings, with no individual identifying information linked to the information. The information will be stored in a password protected computer while using file encryption to keep the data secure. The paper documents, such as this form, will be kept in a locked file cabinet. Three years after the study is completed, the study documents will all be deleted and destroyed.

The results of the study could benefit children and the school system by helping us learn more about the way our teaching methods impact our students so that we ensure the methods being used are effective.

I will ask your child if he or she wants to participate. In order to ask your child, I need your permission, or consent.

Please read the parental consent form on the next page. If you agree, please fill out the form below and return this page before 21 January, 2018.

Sincerely,

Lisa Deprey; Email: [redacted]

Parent Consent Form

Research Study Title: The Impact of Biblical Worldview Integration on the Worldview of Middle School Students
Principal Investigator: Lisa Deprey
Research Institution: Concordia University–Portland Oregon
Faculty Advisor: Dr. David Kluth

As the parent or guardian of the child _____, I consent.

Parent/Guardian Name: _____

Parent/Guardian signature: _____

If you have any questions or concerns, you can call me at [redacted] or send me an email [redacted]. You can also let your child's advisory teacher know if you have questions.

I have also attached a second copy of this page for you to keep for your records. This study was approved by the Concordia University–Portland IRB. If you want to talk with a participant advocate, you can contact Dr. [redacted]. (email [redacted] or call [redacted]).

Sincerely,

Lisa Deprey;
Email: [redacted]

Child Assent Form

Research Study Title: The Impact of Biblical Worldview Integration on the Worldview of Middle School Students
Principal Investigator: Lisa Deprey
Research Institution: Concordia University–Portland Oregon
Faculty Advisor: Dr. David Kluth

This school year, I will be conducting research and would like your help. If you agree to participate, you will be asked to answer some questions in a survey that will help me to figure out your worldview (the way you think about the world). You will answer the questions once in January and again in May so that I can study the difference between the two in order to figure out how your thinking has changed over the course of one school year. You will choose a number to use, instead of a name, so that the surveys will be anonymous (not linked to your name). The information will be kept secret and secure so that no one will be able to figure out what your answers were. These surveys will not be for a grade and you do not need to participate. If you start, you may stop at any time. You will not be given any consequence for deciding not to participate.

Sign this page, if you assent (agree to participate):

Name of Student: _____

Signature of Student: _____

Date: _____

Name of Investigator: Lisa Deprey

Signature of Investigator: _____

Date: _____

Investigator: Lisa Deprey; email: [redacted]
c/o: Professor Dr. David Kluth
Concordia University–Portland
2811 NE Holman Street
Portland, Oregon 97221

Appendix B: Teacher Participant Consent Form

Research Study Title: The Effectiveness of Biblical Worldview Integration Pedagogy with Early Adolescents
Principal Investigator: Lisa Deprey
Research Institution: Concordia University–Portland
Faculty Advisor: Dr. David Kluth

Purpose and what you will be doing:

The purpose of this survey is to determine the effectiveness of the biblical worldview integration pedagogy. We expect approximately 10 volunteers to participate in the teacher interviews and 260 students to participate in the survey portion of the research. No one will be paid to be in the study. We will begin enrollment of participating teachers on January 20, 2019 and end enrollment on March 1, 2019. To be in the study, you will answer several interview questions about biblical worldview integration in a one-on-one setting. It should take less than 45 minutes of your time.

Risks:

There are no risks to participating in this study other than providing your information. However, we will protect your information. Any personal information you provide will be coded so it cannot be linked to you. Any name or identifying information you give will be kept securely via electronic encryption. When we or any of our investigators look at the data, none of the data will have your name or identifying information. We will refer to your data with a code that only the principal investigator knows links to you. This way, your identifiable information will not be stored with the data. We will not identify you in any publication or report. Audio recordings of the interviews will be deleted following transcription/member-checking; all other study-related materials will be kept securely for three years and destroyed upon the conclusion of the study.

Benefits:

Information you provide will help determine if the pedagogy of biblical worldview integration is effective. This will help the school teach students about God more effectively, and may influence future training and implementation. It will also help inform other teachers and administrators who want to use biblical worldview integration in an international setting. You may benefit from this study by having more information about best practices, learning new teaching strategies, and receiving encouragement for teaching methods already being used.

Confidentiality:

This information will not be distributed to any other agency and will be kept private and confidential. The only exception to this is if you tell us about abuse or neglect that makes us seriously concerned for your immediate health and safety.

Right to Withdraw:

Your participation is greatly appreciated, but we acknowledge that the questions we are asking are personal in nature. You are free at any point to choose not to engage with or stop the study. You may skip any questions you do not wish to answer. This study is not required and there is no penalty for not participating. If at any time you experience a negative emotion from answering the questions, we will stop asking you questions.

Contact Information:

You will receive a copy of this consent form. If you have questions you can talk to or write the principal investigator, Lisa Deprey at email [redacted]. If you want to talk with a participant advocate other than the investigator, you can write or call the director of our institutional review board, Dr. [redacted] (email [redacted] or call [redacted]).

Your Statement of Consent:

I have read the above information. I asked questions if I had them, and my questions were answered. I volunteer my consent for this study.

Participant Name

Date

Participant Signature

Date

Investigator Name

Date

Investigator Signature

Date

Investigator: Lisa Deprey; email: [redacted]
c/o: Professor Dr. David Kluth
Concordia University–Portland
2811 NE Holman Street
Portland, Oregon 97221



Appendix C: Worldview Survey

Q1 What grade are you in? Check one.

☐ 6

☐ 7

☐ 8

Q2 What nationality are you? Check all that apply.

☐

Thai

☐

Korean

☐

Indian

☐

Chinese

☐

American

☐

Australian

☐

New Zealander

☐

Canadian

☐

Other:

Q3 What is your parent's religion? Check all that apply.

- ☐ Buddhist
- ☐ Christian
- ☐ Hindi
- ☐ Jain
- ☐ Other
- ☐ No religion
- ☐ Not Sure

Q4 What is your personal religion? Check all that apply.

- ☐ Buddhist
- ☐ Christian
- ☐ Hindi
- ☐ Jain
- ☐ Other
- ☐ No Religion
- ☐ Not Sure

Q5 What is your personal identification code?

End of Block: Demographics

Q6 I primarily help others because I have to.

- ☐ Strongly agree
- ☐ Somewhat agree
- ☐ Neither agree nor disagree
- ☐ Somewhat disagree
- ☐ Strongly disagree

Q7 I primarily help others because I want to make their lives better.

- ☐ Strongly agree
- ☐ Somewhat agree
- ☐ Neither agree nor disagree
- ☐ Somewhat disagree
- ☐ Strongly disagree

Q8 I primarily help others because I want good karma.

- ☐ Strongly agree
- ☐ Somewhat agree
- ☐ Neither agree nor disagree
- ☐ Somewhat disagree
- ☐ Strongly disagree

Q9 I go to the temple, church, or other place of worship only when an adult forces me to.

- ☐ Strongly agree
- ☐ Somewhat agree
- ☐ Neither agree nor disagree
- ☐ Somewhat disagree
- ☐ Strongly disagree

Q10 I pray regularly. Choose one:

- ☐ Daily
- ☐ Weekly
- ☐ Monthly
- ☐ When I need something
- ☐ Never

Q11 I like to talk to my friends about spiritual things.

- ☐ Strongly agree
- ☐ Somewhat agree
- ☐ Neither agree nor disagree
- ☐ Somewhat disagree
- ☐ Strongly disagree

Q12 My faith/religion is shown to others through my actions.

- ☐ Strongly agree
- ☐ Somewhat agree
- ☐ Neither agree nor disagree
- ☐ Somewhat disagree

☐ Strongly disagree

Q13 My faith helps me make decisions.

☐ Strongly agree

☐ Somewhat agree

☐ Neither agree nor disagree

☐ Somewhat disagree

☐ Strongly disagree

Q14 When I pray, I often repent (say I'm sorry) for the bad things that I have done.

☐ Strongly agree

☐ Somewhat agree

☐ Neither agree nor disagree

☐ Somewhat disagree

☐ Strongly disagree

Q15 I regularly give money to the poor people I pass on the street.

☐ Strongly agree

☐ Somewhat agree

☐ Neither agree nor disagree

☐ Somewhat disagree

☐ Strongly disagree

Q16 When I see someone in trouble, I go out of my way to help them.

☐ Strongly agree

☐ Somewhat agree

- ☐ Neither agree nor disagree
- ☐ Somewhat disagree
- ☐ Strongly disagree

Q17 I would not date someone who had a different religion than me.

- ☐ Strongly agree
- ☐ Somewhat agree
- ☐ Neither agree nor disagree
- ☐ Somewhat disagree
- ☐ Strongly disagree

Q18 I would think about changing my religion for a person that I love.

- ☐ Strongly agree
- ☐ Somewhat agree
- ☐ Neither agree nor disagree
- ☐ Somewhat disagree
- ☐ Strongly disagree

Q19 I do what is right, even if it means going against my friends.

- ☐ Strongly agree
- ☐ Somewhat agree
- ☐ Neither agree nor disagree
- ☐ Somewhat disagree
- ☐ Strongly disagree

Q20 I am able to admit when I am wrong.

- ☐ Strongly agree
- ☐ Somewhat agree
- ☐ Neither agree nor disagree
- ☐ Somewhat disagree
- ☐ Strongly disagree

Q21 I will lie or twist the truth in order to get out of trouble.

- ☐ Strongly agree
- ☐ Somewhat agree
- ☐ Neither agree nor disagree
- ☐ Somewhat disagree
- ☐ Strongly disagree

Q22 I accept the consequences I am given when I do something wrong without anger or complaint.

- ☐ Strongly agree
- ☐ Somewhat agree
- ☐ Neither agree nor disagree
- ☐ Somewhat disagree
- ☐ Strongly disagree

Q23 I believe there is one God.

- ☐ Strongly agree
- ☐ Somewhat agree
- ☐ Neither agree nor disagree
- ☐ Somewhat disagree
- ☐ Strongly disagree

Q24 I believe there are many ways to get to heaven.

- ☐ Strongly agree
- ☐ Somewhat agree
- ☐ Neither agree nor disagree
- ☐ Somewhat disagree
- ☐ Strongly disagree

Q25 The Bible is an old book full of fictional stories meant to teach people right from wrong.

- ☐ Strongly agree
- ☐ Somewhat agree
- ☐ Neither agree nor disagree
- ☐ Somewhat disagree
- ☐ Strongly disagree

Q26 The Bible is historically accurate.

- ☐ Strongly agree
- ☐ Somewhat agree
- ☐ Neither agree nor disagree
- ☐ Somewhat disagree
- ☐ Strongly disagree

Q27 The Bible is the written word of God.

- ☐ Strongly agree
- ☐ Somewhat agree
- ☐ Neither agree nor disagree

- ☐ Somewhat disagree
- ☐ Strongly disagree

Q28 There is no one true religion; what is true for you might not be true for me.

- ☐ Strongly agree
- ☐ Somewhat agree
- ☐ Neither agree nor disagree
- ☐ Somewhat disagree
- ☐ Strongly disagree

Q29 It is impossible to know which religion is really true.

- ☐ Strongly agree
- ☐ Somewhat agree
- ☐ Neither agree nor disagree
- ☐ Somewhat disagree
- ☐ Strongly disagree

Q30 There is only one right religion.

- ☐ Strongly agree
- ☐ Somewhat agree
- ☐ Neither agree nor disagree
- ☐ Somewhat disagree
- ☐ Strongly disagree

Q31 When people pray, it doesn't matter what religion they are. They all pray to the same god.

- ☐ Strongly agree

- ☐ Somewhat agree
- ☐ Neither agree nor disagree
- ☐ Somewhat disagree
- ☐ Strongly disagree

Q32 Satan is a symbol of evil, not a real being.

- ☐ Strongly agree
- ☐ Somewhat agree
- ☐ Neither agree nor disagree
- ☐ Somewhat disagree
- ☐ Strongly disagree

Q33 God is alive in the world today.

- ☐ Strongly agree
- ☐ Somewhat agree
- ☐ Neither agree nor disagree
- ☐ Somewhat disagree
- ☐ Strongly disagree

Q34 God is active in the world today.

- ☐ Strongly agree
- ☐ Somewhat agree
- ☐ Neither agree nor disagree
- ☐ Somewhat disagree
- ☐ Strongly disagree

Q35 Jesus was a real person who lived and died.

- ☐ Strongly agree
- ☐ Somewhat agree
- ☐ Neither agree nor disagree
- ☐ Somewhat disagree
- ☐ Strongly disagree

Q36 Jesus was not the son of God.

- ☐ Strongly agree
- ☐ Somewhat agree
- ☐ Neither agree nor disagree
- ☐ Somewhat disagree
- ☐ Strongly disagree

Q37 Jesus rose from the dead.

- ☐ Strongly agree
- ☐ Somewhat agree
- ☐ Neither agree nor disagree
- ☐ Somewhat disagree
- ☐ Strongly disagree

Q38 Jesus is living in heaven right now.

- ☐ Strongly agree
- ☐ Somewhat agree
- ☐ Neither agree nor disagree

☐ Somewhat disagree

☐ Strongly disagree

Q39 The Bible is applicable to my life.

☐ Strongly agree

☐ Somewhat agree

☐ Neither agree nor disagree

☐ Somewhat disagree

☐ Strongly disagree

Q40 We can learn good morals from Bible stories.

☐ Strongly agree

☐ Somewhat agree

☐ Neither agree nor disagree

☐ Somewhat disagree

☐ Strongly disagree

Q41 My purpose in life is to do more good than bad.

☐ Strongly agree

☐ Somewhat agree

☐ Neither agree nor disagree

☐ Somewhat disagree

☐ Strongly disagree

Q42 Good and evil are ideas that help adults explain right and wrong to children.

☐ Strongly agree

- ☐ Somewhat agree
- ☐ Neither agree nor disagree
- ☐ Somewhat disagree
- ☐ Strongly disagree

Q43 There is a purpose for my life.

- ☐ Strongly agree
- ☐ Somewhat agree
- ☐ Neither agree nor disagree
- ☐ Somewhat disagree
- ☐ Strongly disagree

Q44 Peace (calm feelings) comes from filling my mind with thoughts of good things.

- ☐ Strongly agree
- ☐ Somewhat agree
- ☐ Neither agree nor disagree
- ☐ Somewhat disagree
- ☐ Strongly disagree

Q45 Peace (calm feelings) comes from clearing my mind and emptying myself.

- ☐ Strongly agree
- ☐ Somewhat agree
- ☐ Neither agree nor disagree
- ☐ Somewhat disagree
- ☐ Strongly disagree

Q46 I deserve to have good things happen to me.

- ☐ Strongly agree
- ☐ Somewhat agree
- ☐ Neither agree nor disagree
- ☐ Somewhat disagree
- ☐ Strongly disagree

Q47 I deserve to have bad things happen to me.

- ☐ Strongly agree
- ☐ Somewhat agree
- ☐ Neither agree nor disagree
- ☐ Somewhat disagree
- ☐ Strongly disagree

Q48 I know if I am doing the right thing if I am following the law.

- ☐ Strongly agree
- ☐ Somewhat agree
- ☐ Neither agree nor disagree
- ☐ Somewhat disagree
- ☐ Strongly disagree

Q49 Morals (right and wrong) should be the same for everyone.

- ☐ Strongly agree
- ☐ Somewhat agree
- ☐ Neither agree nor disagree

- ☐ Somewhat disagree
- ☐ Strongly disagree

Q50 I decide what is right and wrong based on the way I feel about a situation.

- ☐ Strongly agree
- ☐ Somewhat agree
- ☐ Neither agree nor disagree
- ☐ Somewhat disagree
- ☐ Strongly disagree

Q51 I do things that make me happy, even if it hurts someone else.

- ☐ Strongly agree
- ☐ Somewhat agree
- ☐ Neither agree nor disagree
- ☐ Somewhat disagree
- ☐ Strongly disagree

Q52 It is okay for a person to steal if he or she is poor and need food or medicine.

- ☐ Strongly agree
- ☐ Somewhat agree
- ☐ Neither agree nor disagree
- ☐ Somewhat disagree
- ☐ Strongly disagree

Q53 People are responsible for taking care of themselves, even if they are poor or disabled.

- ☐ Strongly agree

- ☐ Somewhat agree
- ☐ Neither agree nor disagree
- ☐ Somewhat disagree
- ☐ Strongly disagree

Q54 It is okay to marry someone who has a different religion than me.

- ☐ Strongly agree
- ☐ Somewhat agree
- ☐ Neither agree nor disagree
- ☐ Somewhat disagree
- ☐ Strongly disagree

Q55 It is important that I will have a lot of money when I grow up.

- ☐ Strongly agree
- ☐ Somewhat agree
- ☐ Neither agree nor disagree
- ☐ Somewhat disagree
- ☐ Strongly disagree

Q56 It is important to have a lot of friends.

- ☐ Strongly agree
- ☐ Somewhat agree
- ☐ Neither agree nor disagree
- ☐ Somewhat disagree
- ☐ Strongly disagree

Appendix D: Scoring Guide: Worldview Survey

The indicated answer is the most biblical. It is the score that will receive five points. The other answers will receive a decreasing number of points as they move further away from the biblical answer on the Likert scale. For example, if “Strongly Disagree” is the most biblical answer, the point values would be awarded as follows:

Strongly disagree – 5

Disagree – 4

Neutral – 3

Agree – 2

Strongly agree – 1

The higher an individual scores, the more biblical their worldview is. Each participant will receive one overall score, as well as one score for each of the three aspects of a worldview (emotional/spiritual, propositional knowledge, behavior).

21 – Behavior focused – 85 possible points

18 – Propositional knowledge focused – 85 possible points

20 – Emotional/spiritual focused – 100 possible points

Overall – 295 possible points

Behavior Focused

1. I primarily help others because I have to.
 - a. Strongly disagree
 - b. Philippians 2:3-4
2. I primarily help others because I want to make their lives better.
 - a. Strongly agree
 - b. John 15:12, Matthew 25:35-40; 1 Peter 4:8-9

3. I primarily help others because I want good karma.
 - a. Strongly disagree
 - b. Hebrews 9:27; Galatians 6:8-9; Ephesians 2:8-9
4. I go to the temple, church, or other place of worship only when an adult forces me to.
 - a. Strongly disagree
 - b. Hebrews 10:25
5. I pray regularly. Choose one: daily, weekly, monthly, when I need something, never.
 - a. Daily
 - b. 1 Thessalonians 5:16-18
6. I like to talk to my friends about spiritual things.
 - a. Strongly agree
 - b. Mark 16:15-16; Acts 2:42; Ephesians 5:19; Colossians 3:16; James 5:16
7. My faith/religion is shown to others through my actions.
 - a. Strongly agree
 - b. Matthew 7:15-20; John 13:35
8. My faith helps me make decisions.
 - a. Strongly agree
 - b. Proverbs 3:5-6; Philippians 4:6-7
9. When I pray, I often repent (say I'm sorry) for the bad things that I have done.
 - a. Strongly agree
 - b. Acts 3:19; 2 Corinthians 7:9-10
10. I regularly give money to the poor people I pass on the street.
 - a. Strongly agree
 - b. Deuteronomy 15:11; Hebrews 13:16; Matthew 5:42

11. When I see someone in trouble, I go out of my way to help them.
- a. Strongly agree
 - b. John 15:13; Matthew 10:8; Philippians 2:4
12. I would not date someone who had a different religion than me.
- a. Strongly agree
 - b. 2 Corinthians 6:14-16; 1 Corinthians 15:33
13. I would think about changing my religion for a person that I love.
- a. Strongly disagree
 - b. 1 Corinthians 15:33, 58
14. I do what is right, even if it means going against my friends.
- a. Strongly agree
 - b. Galatians 6:9; Colossians 3:17; James 4:17
15. I am able to admit when I am wrong.
- a. Strongly agree
 - b. Proverbs 28:13; 1 John 1:9; James 5:16
16. I will lie or twist the truth in order to get out of trouble.
- a. Strongly disagree
 - b. Proverbs 12:22; Colossians 3:9-10; Ephesians 4:25
17. I accept the consequences I am given when I do something wrong without anger or complaint.
- a. Strongly agree
 - b. Romans 13:4; Galatians 6:7-8; Hebrews 12:11; Philippians 2:14
18. I copy the work of others when completing homework or a test if their work is better than mine.

a. Strongly disagree

b. Colossians 3:23

19. I regularly watch scary movies and/or movies about witchcraft/demons/ghosts/etc.

a. Strongly disagree

b. Philippians 4:8

20. I avoid conflict at all times.

a. Strongly disagree

b. Matthew 18:15-17

21. It is better to confront a friend to resolve conflict than it is to ignore the problem, even if it makes the friend uncomfortable.

a. Strongly agree

b. Matthew 18:15-17

Spiritual/Emotional Focused

22. I believe there is one God.

a. Strongly agree.

b. 1 Timothy 2:5; Isaiah 44:6; 1 Corinthians 8:6

23. I believe there are many ways to get to heaven.

a. Strongly disagree

b. John 14:6; Romans 10:9; Ephesians 2:8-9; John 3:3

24. The Bible is an old book full of fictional stories meant to teach people right from wrong.

a. Strongly disagree

b. 2 Timothy 3:16

25. The Bible is historically accurate.

a. Strongly agree

- b. 2 Timothy 3:16
26. The Bible is the written word of God.
- a. Strongly agree
 - b. 2 Timothy 3:16
27. There is no one true religion; what is true for you might not be true for me.
- a. Strongly disagree
 - b. Isaiah 42:5, Isaiah 44:9-10, John 1:14, John 17:3
28. It is impossible to know which religion is really true.
- a. Strongly disagree
 - b. Romans 1:20, Hebrews 1:1-2
29. There is only one right religion.
- a. Strongly agree
 - b. John 14:6, Hebrews 11:6
30. When people pray, it doesn't matter what religion they are. They all pray to the same god.
- a. Strongly disagree
 - b. 1 Corinthians 10:1-8; Leviticus 26:1; Ezekiel 14:3-5
31. Satan is a symbol of evil, not a real being.
- a. Strongly disagree
 - b. 1 John 3:8; 1 Corinthians 7:5; John 8:44; James 4:7; Romans 16:20; Ephesians 6:11
32. God is alive in the world today.
- a. Strongly agree
 - b. Jeremiah 10:10; James 1:17; Hebrews 1:8; John 1:14; Matthew 28:18-20
33. God is active in the world today.
- a. Strongly agree

- b. Hebrews 4:12; Acts 1:8; John 14:16; Acts 5:3-4; John 16:8; Ephesians 3:16
34. Jesus was a real person who lived and died.
- a. Strongly agree
 - b. Gospels of Mark, Matthew, Luke, and John
35. Jesus was not the son of God.
- a. Strongly disagree
 - b. 1 John 4:15; Matthew 3:17; John 1:14; Acts 13:33
36. Jesus rose from the dead.
- a. Strongly agree
 - b. John 20; Mark 16; Matthew 28; Luke 24; Romans 8:11;
37. Jesus is living in heaven right now.
- a. Strongly agree
 - b. Luke 24:51; Acts 1:9-11; Acts 7:56
38. The Bible is applicable to my life.
- a. Strongly agree
 - b. 1 Timothy 4:16; 1 Timothy 3:14-15; Proverbs 22:17; 2 Thessalonians 2:15
39. We can learn good morals from Bible stories.
- a. Strongly agree
 - b. Matthew 5-7; Proverbs 1
40. I follow the religion of my parents, even if I don't fully understand it.
- a. Strongly disagree
 - b. Romans 10, Luke 14:25-27
41. I am happy with myself only when I get good grades.
- a. Strongly disagree

- b. Psalm 37; Philippians 4:11-13; Ecclesiastes 2:26

Propositional Knowledge Focused

42. My purpose in life is to do more good than bad.

- a. Strongly disagree
- b. 1 Peter 2:9; Matthew 28:18-20; Acts 26:16

43. Good and evil are ideas that help adults explain right and wrong to children.

- a. Strongly disagree
- b. Romans 12:21; Psalm 37:27; Ephesians 6:11-12

44. There is a purpose for my life.

- a. Strongly agree
- b. 1 Peter 2:9; Matthew 28:18-20; Acts 26:16

45. Peace (calm feelings) comes from filling my mind with thoughts of good things.

- a. Strongly agree
- b. Isaiah 26:3; John 14:27; Philippians 4:6-7; Romans 8:6; Romans 16:20

46. Peace (calm feelings) comes from clearing my mind and emptying myself.

- a. Strongly disagree
- b. Isaiah 26:3; John 14:27; Philippians 4:6-7; Romans 8:6; Romans 16:20

47. I deserve to have good things happen to me.

- a. Strongly disagree
- b. Psalm 103:8-11; Romans 4:5; 1 Corinthians 15:10; Luke 18:18-19

48. I deserve to have bad things happen to me.

- a. Strongly agree
- b. Psalm 103:8-11; Romans 4:5; 1 Corinthians 15:10; Luke 18:18-19

49. I know if I am doing the right thing if I am following the law.

- a. Strongly disagree
 - b. Acts 5:29; Titus 3:1; 1 Peter 2:13-17
50. Morals (right and wrong) should be the same for everyone.
- a. Strongly agree
 - b. Romans 2:15; Judges 17:6
51. I decide what is right and wrong based on the way I feel about a situation.
- a. Strongly disagree
 - b. Proverbs 28:26; Jeremiah 17:9
52. I do things that make me happy, even if it hurts someone else.
- a. Strongly disagree
 - b. Luke 6:27; Mark 12:31; Romans 13:8-10
53. It is okay for a person to steal if he or she is poor and need food or medicine.
- a. Strongly disagree
 - b. Ephesians 4:28; Exodus 20:15; Romans 13:9
54. People are responsible for taking care of themselves, even if they are poor or disabled.
- a. Strongly disagree
 - b. Philippians 2:4; 1 John 3:17-18; 1 Timothy 5:8; Proverbs 19:17; Galatians 5:22
55. It is okay to marry someone who has a different religion than me.
- a. Strongly disagree
 - b. 2 Corinthians 6:14; 1 Corinthians 7:12-16; Deuteronomy 7:3-4
56. It is important that I will have a lot of money when I grow up.
- a. Strongly disagree
 - b. 1 Timothy 6:10; Luke 12:34; Luke 18:24-25
57. It is important to have a lot of friends.

a. Strongly disagree

b. Proverbs 18:24

58. The world and everything in it was created by God.

a. Strongly agree

b. Gen 1

59. The world has no beginning, it always has been and will always be.

a. Strongly disagree

b. Gen 1

Appendix E: Interview Instrument for Teachers

(Prior to asking any questions, the researcher will read the following information to the interviewee. The interviewee will be allowed to ask questions before any interview questions are asked.)

Thank you for allowing me to interview you for my research project about biblical worldview integration. Before we begin, I want to give you some background on my study. I am conducting research about the effectiveness of biblical worldview integration at our school. The goal of the research is to determine if the way we are implementing biblical worldview integration is working with our unique combination of Christian and non-Christian students in a non-Christian nation. The study will be used by the administrators to evaluate current practices and determine next steps in making the program more effective. The purpose of this interview is to determine your perspective on biblical worldview integration, and how you are using it in your classroom. This will not be used as a method of review, and the information will not be shared with any identifying information.

(All teachers at the participating school are Christians, so the questions are worded in such a way that a Christian faith is assumed.)

1. Describe your understanding of biblical worldview integration.
 - a. What do you think the *purpose* of biblical worldview integration is?
2. How do you incorporate biblical worldview integration into the way you plan your lessons?
3. How does your incorporation of biblical worldview into your teaching differ from its incorporation into your lesson plans?
4. How, if at all, do your methods for integrating biblical worldview differ by grade and/or subject? (adjust as appropriate based on the classes they teach)

5. How do you know how effectively you are integrating a biblical worldview into your lessons?
 - a. Do you believe the effectiveness of your biblical worldview teaching varies by grade and/or subject?
 - b. For which grade/subject are you most effective in teaching a biblical worldview?
6. When implementing biblical worldview integration into your lessons, what impact do you perceive it has on Thai Buddhist students? Can you give me some examples?
7. Do you seamlessly integrate a biblical worldview into the way you teach? If not, describe the frequency that a biblical worldview is integrated into the way that you teach. Is it something that you would like to do more, less, or the same amount as you are?
 - a. Possible follow up (if they would like to do more): What stops you from integrating as frequently as you would like?
 - b. Possible follow up (if they would like to do less): Can you tell me more about why you think integration occurs too frequently?
 - c. Possible follow up (if they would like to do the same amount as they currently are): Why do you think that your current amount of integration is the right amount?
8. Is there anything else that you would like for me to know about your philosophy and approach to biblical worldview integration and how it is implemented?

Appendix F: Parent Interview Instrument

(This parent interview will be used with 5 to 8 parents of middle school students. They will be chosen from volunteers so that the largest range of family backgrounds (religion and ethnicity) are represented in the interviews. These questions will be used, but follow up questions may be asked for clarification. Some of the parents will not be native English speakers, so the words in parenthesis may be used to help clarify meaning. The interviewer will not bring up religion unless the parent brings it up first, and the parent will lead the discussion about any topics of religion or spirituality to avoid unnecessary discomfort or offense. A translator will be available upon request of the parent being interviewed. Interviews will be scheduled for 30–45 minutes at the convenience of the parent being interviewed.)

Thank you for allowing me to interview you for my research project about the teaching methods of [redacted]. Before we begin, I want to give you some background on my study. I am conducting research about the effectiveness of one of the teaching strategies used at our school. The goal of the research is to determine if the way we are implementing it is working with our unique combination students. The study will be used by the administrators to evaluate current practices and determine next steps in making the school more effective. The purpose of this interview is to determine your perspective as a parent and to better understand your experiences. The information will not be shared with any identifying information and will not be connected in any way to your child.

1. How many children do you have attending [redacted]? What grades are they in?
2. Why do you choose to send your child/children to [redacted]?
3. Please describe the mission of the school as you understand it.
4. Please describe three ways the mission of the school has impacted your child and family.

5. Please describe three things you value about the curriculum of our school (the way subjects are taught).
6. Please describe the way the curriculum of the school has impacted your child.

In your own words, please describe the worldview (values, point of view) of our school.

Appendix G: Parent Interview Consent Form

Research Study Title: The Effectiveness of Biblical Worldview Integration Pedagogy with Early Adolescents in Thailand
Principal Investigator: Lisa Deprey
Research Institution: Concordia University–Portland
Faculty Advisor: Dr. David Kluth

Purpose and what you will be doing:

The purpose of this research is to determine how effectively we are teaching our chosen curriculum. We expect approximately seven volunteers to participate in the parent interview portion of this research. No one will be paid to be in the study. We will begin enrollment on February 15, 2019, and end enrollment on March 1, 2019. To be in the study, you will be asked to participate in a one-on-one interview. During the interview you will be asked several questions about the school and your experiences here. It should take less than 45 minutes of your time.

Risks:

There are no risks to participating in this study other than providing your information. However, we will protect your information. Any personal information you provide will be coded so it cannot be linked to you. Any name or identifying information you give will be kept securely via electronic encryption. When we or any of our investigators look at the data, none of the data will have your name or identifying information. We will refer to your data with a code that only the principal investigator knows links to you. This way, your identifiable information will not be stored with the data. We will not identify you in any publication or report. Audio recordings of the interviews will be deleted following transcription/member-checking; all other study-related materials will be kept securely for three years and destroyed upon the conclusion of the study.

Benefits:

Information you provide will help the teachers and advisors of the school determine if they way they teach is effective and if the mission of the school is being fulfilled. You could benefit from this study by having a better environment for your child's education.

Confidentiality:

This information will not be distributed to any other agency and will be kept private and confidential. The only exception to this is if you tell us abuse or neglect that makes us seriously concerned for your immediate health and safety.

Right to Withdraw:

Your participation is greatly appreciated, but we acknowledge that the questions we are asking are personal in nature. You are free at any point to choose not to engage with or stop the study. You may skip any questions you do not wish to answer. This study is not required and there is no penalty for not participating. If at any time you experience a negative emotion from answering the questions, we will stop asking you questions. If you would like to withdraw from the study, please inform the principal investigator no later than May 31, 2019.

Contact Information:

You will receive a copy of this consent form. If you have questions you can talk to or write the principal investigator, Lisa Deprey at email [redacted] If you want to talk with a participant advocate other than the investigator, you can write or call the director of our institutional review board, Dr. [redacted] (email: [redacted] or call [redacted]).

Your Statement of Consent:

I have read the above information. I asked questions if I had them, and my questions were answered. I volunteer my consent for this study.

Participant Name

Date

Participant Signature

Date

Investigator Name

Date

Investigator Signature

Date

Investigator: Lisa Deprey; email: [redacted]
c/o: Professor Dr. David Kluth
Concordia University–Portland
2811 NE Holman Street
Portland, Oregon 97221



Appendix H: Statement of Original Work

The Concordia University Doctorate of Education Program is a collaborative community of scholar-practitioners, who seek to transform society by pursuing ethically-informed, rigorously-researched, inquiry-based projects that benefit professional, institutional, and local educational contexts. Each member of the community affirms throughout their program of study, adherence to the principles and standards outlined in the Concordia University Academic Integrity Policy. This policy states the following:

Statement of academic integrity.

As a member of the Concordia University community, I will neither engage in fraudulent or unauthorized behaviors in the presentation and completion of my work, nor will I provide unauthorized assistance to others.

Explanations:

What does “fraudulent” mean?

“Fraudulent” work is any material submitted for evaluation that is falsely or improperly presented as one’s own. This includes, but is not limited to texts, graphics and other multi-media files appropriated from any source, including another individual, that are intentionally presented as all or part of a candidate’s final work without full and complete documentation.

What is “unauthorized” assistance?

“Unauthorized assistance” refers to any support candidates solicit in the completion of their work, that has not been either explicitly specified as appropriate by the instructor, or any assistance that is understood in the class context as inappropriate. This can include, but is not limited to:

- Use of unauthorized notes or another’s work during an online test
- Use of unauthorized notes or personal assistance in an online exam setting
- Inappropriate collaboration in preparation and/or completion of a project
- Unauthorized solicitation of professional resources for the completion of the work.

Statement of Original Work (Continued)

I attest that:

1. I have read, understood, and complied with all aspects of the Concordia University–Portland Academic Integrity Policy during the development and writing of this dissertation.
2. Where information and/or materials from outside sources has been used in the production of this dissertation, all information and/or materials from outside sources has been properly referenced and all permissions required for use of the information and/or materials have been obtained, in accordance with research standards outlined in the *Publication Manual of The American Psychological Association*.

Lisa Beth Deprey

Digital Signature

Lisa Beth Deprey

Name (Typed)

Dec 5, 2019

Date