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Pedagogy For Christian Worldview Formation: A Grounded Theory Study of Bible College Teaching Methods

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PEDAGOGY FOR CHRISTIAN WORLDVIEW FORMATION: A GROUNDED THEORY
STUDY OF BIBLE COLLEGE TEACHING METHODS

by

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ABSTRACT

To date, only emerging qualitative data exist on pedagogy employed specifically for worldview formation, especially in Christian contexts. Using a grounded theory approach, I carried out this qualitative research using personal interviews with the goal of discovering a theory for the processes expert teachers use in employing effective worldview pedagogy. Data was gathered through personal interviews with six participants who were nominated by their presidents or deans as suitable candidates according to the criteria of an expert teacher in this aspect of Bible college teaching.

The process of qualitative coding led to a theory of pedagogy for Christian worldview formation characterized by four themes: a) setting clarity on what aspect of worldview formation the teacher aims to affect, b) designing relevant holistic objectives that bring coherence between the world the student experiences and the Christian values that apply to it, c) using teaching methods that move along a continuum of deconstruction and reconstruction strategies along with active learning exercises, which helps set a trajectory for students' ongoing worldview development, and d) compiling assessment data from tools that focus on specific areas of worldview development and measure small gains in keeping with an appropriate pace of formation.

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This dissertation is dedicated to the memory of my father, Richard, who passed away during its completion.

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CHAPTER ONE

Introduction to the Research

Educating for Christian worldview formation is often concerned with teaching the basic tenets of Christianity that differentiate it from other worldviews. Such training tends to be heavily propositional and cognitive, often giving less attention to the experiential and practical (Mittwede, 2013). Other approaches emphasize the quantity of theological learning as the determining factor in shaping worldview. It is as though some educators presume a linear model whereby if a critical mass of conceptual change occurs in the student, the sheer force of theological weight will shift his or her worldview to a biblical or Christian orientation.

Many educational philosophers dismiss the notion of value-free education, acknowledging that all subjects are taught from a particular worldview. For example, Nash (2003) describes value-free education as a myth that supposedly ensures students freedom from coerced exposure to someone else's values. In fact, Belcher and Parr (2011) claim that everything an institution does teaches values and worldview in both explicit and implicit ways. Together, these define for students what can be known in the world and how it can be known, what ought to be done in a given situation, and what goals are worth pursuing (Koltko-Rivera, 2004).

The factual transmission of such content does play an essential role in forming a person's worldview. However, what pedagogical factors and strategies do teachers consider when designing and assessing effective worldview learning? For example, the Worldview Explorations curriculum from the Institute of Noetic Sciences offers a developmental model based on pedagogical research in consciousness and transformation. The program, which is for middle school, high school, and college students, uses self-reflective practices and project-based

group activities to blend intellectual development alongside emotional and social intelligence. In addition, Jordan, Bawden, and Bergmann (2008) offer one of the most rigorous studies on worldview pedagogy, but it is set in the agroecosystem context and its challenges of sustainability due to the expanding range of goods and services agriculture offers to society. They address the challenges agricultural professionals will face as new innovations in ecological services bring them into critical civic debates that require a capacity to facilitate both “challenges to, and where appropriate, changes in prevailing worldviews—their own as well as those of others” (2008, p. 92). To prepare for such encounters, the authors emphasize pedagogy that equips students’ individual capacities to think and act systemically as well as their collective capacities (i.e., social learning) for navigating moral and practical issues brought by the increasing complexities and controversies in this industry.

What is motivating the research attention paid to the pedagogy employed in these types of programs? Schlitz and her colleagues capture it well, saying:

Today globalization, technology, and urbanization increasingly draw together divergent cultures and connect previously isolated regions in ways that have never occurred before. The rate at which information is accumulated and accessed has grown exponentially, challenging us to see the world with new eyes and to adapt our educational systems to meet demands that were inconceivable in the previous era. A growing number of educators and researchers are suggesting that it is no longer possible to separate training of the intellect from the cultivation of emotional and social intelligence. We need to focus not simply on acquiring information, but on understanding ourselves as learners. (2011, para. 5)

Many industries are recognizing that the way they present themselves and interact with others is equally important as the product or service they provide society. This realization is presented as a type of literacy and often appears in educational discussions about developing students' twenty-first century skills, such as social consciousness, collaboration, and group problem-solving. More and more, these industries and their educators are turning to pedagogical strategies for raising students' worldview consciousness and shaping their individual and social capacities for providing the moral leadership that builds peaceful, cooperative communities amidst the variety of ethical perspectives and conflict that comes with increasing diversity.

To date, only emergent qualitative data exist on pedagogy employed specifically for worldview formation, especially in Christian contexts. Some of these studies explore pedagogical implications for the shaping and expression of Christian worldview in professional studies programs such as counseling (Grauf-Grounds, Edwards, Macdonald, Mui-Teng Quek, & Schermer Sellers, 2009; Wolf, 2011) and management studies (Daniels, Franz, & Wong, 2000). Some notable doctoral dissertations have recently appeared focusing on pedagogy in the K-12 Christian school setting (Fyock, 2008; Wood, 2008) as well as the Christian college situation (Brickhill, 2010; Wilkie, 2015), while others give attention to testing the reliability of tools for assessing Christian worldview in university students (Morales, 2013). Finally, new studies have appeared that develop cognitive theoretical frameworks combined with active learning methods for provoking deeper worldview development (Collier & Dowson, 2008; Mittwede, 2013; Ter Avest, Bertram-Troost, & Miedema, 2012)

Two main contributions to the literature influence this project. First, I use the monograph by Kanitz (2005) as a point of departure for this study because she first called for the improvement of Christian worldview pedagogy. Like many teachers, she presents the context of

Christian higher education as a powerful opportunity to develop a greater vibrancy and holistic worldview in students. Yet many educators are uncertain about what teaching and assessment methods they can use for this elusive objective. Kanitz also highlights important pedagogical factors that make this a challenge, such as the multiplicity of Christian worldviews to consider, the influence of denominational and institutional traditions, the ambiguity of assessment, the tendency toward pluralism influenced by postmodern forms of thinking, and the hermeneutical approaches students take to reading and interpreting the Bible.

Second, Ward (2012) provides a helpful perspective on curriculum planning that sees no bifurcation between what should be taught and why. To emphasize his point, he deliberately uses awkward grammar by asking “What should be taught why?” (i.e., no “and” between “taught” and “why”). In doing so, he underscores that teachers should always plan the subject being taught in the context of *why* it should be taught. In a similar way, this study underscores that teachers must also plan the subject being taught in the context of *how* it should be taught (i.e., pedagogy). This study assumes that teachers can shape and strengthen a Christian worldview within several disciplines. Therefore, in a style similar to Ward, this research seeks to answer the question, “What should be taught how?”

Statement of the Problem

In order to understand how an expert teacher shapes the Christian worldview of college students, I carried out this qualitative research using individual interviews with six faculty members from Bible colleges accredited with the Association for Biblical Higher Education to discover the notable pedagogical factors, instructional strategies, and assessment approaches they use in their teaching ministry. In keeping with the objective of grounded theory, the purpose of this study was to examine the concepts and processes of expert teachers so a theory of effective

worldview pedagogy could emerge from the data. This study adds to the literature on Christian worldview by offering a theoretical framework for teachers to consider for instructional design that aims to shape the Christian worldview of college students.

The qualitative literature to date on this subject in Christian contexts tends to emphasize phenomenological perspectives (Belcher & Parr, 2011; Mittwede, 2013; Setran, Wilhoit, Ratcliff, Haase, & Rozema, 2010) while other researchers have explored it through a grounded theory approach (Daniels et al., 2000; Jordan et al., 2008). The concerns and observations raised by Kanitz (2005) have been cited in four studies in the past two years (Carpenter, 2015; Chan & Wong, 2014; Morales, 2013; Wilkie, 2015). This study adds to the literature by situating the context in undergraduate Bible college education.

Research Questions

For this qualitative study, I explored the following research questions that align with the selected problem and intent of the study:

1. What instructional designs and pedagogical methods are especially effective for raising worldview awareness and shaping Christian worldview development?
2. How does the worldview of the teacher and his or her relationships with students influence pedagogical effectiveness?
3. How are teachers assessing college students for worldview awareness and development?

Key Terms

Assessment: Involves the gathering and analysis of empirical data on student learning to refine programs and improve student learning (Allen, 2003).

Association for Biblical Higher Education (ABHE): A North American accrediting agency comprised of approximately 200 postsecondary institutions throughout North America that specialize in biblical and theological studies as well as professional ministry training.

Christian worldview: A worldview shaped by theological and biblical precepts understood within a particular Christian tradition and cultural setting.

Instructional design: The development of learning experiences and environments that incorporate known and verified learning strategies into instructional experiences which make holistic learning more efficient, effective, and appealing (Merrill, Drake, Lacy, & Pratt, 1996).

Pedagogy: Depending on its use or context, pedagogy refers to the craft, science, practice, or profession of teaching, especially concerning principles and methods of teaching. Expressions include formal classroom/curricular instruction, co-curricular activities, accompanying, and caring for students.

Strategies and factors: A thoughtful and responsive plan or method of instruction that incorporates known circumstances, facts, or influences contributing to a condition or outcome.

Worldview: For the purposes of this study, I will use this concise yet broad definition, which allows the interview participants to shape its meaning more as they see it: A worldview is comprised of the beliefs, values, assumptions, and volitions that provide the rationale for how people understand and order their lives.

Worldview pedagogy: Teaching and learning that aims to develop not only traditional cognitive faculties but also crucial aspects such as social, moral, and spiritual development that take place in other non-academic areas of the college experience.

Limitations and Delimitations

An inherent limitation with qualitative research with nonprobability sampling is that researchers cannot generalize the data to a larger population. However, the insights gained through this study do have a benefit of transferability. I intentionally chose a small sample to learn about the experiences and views of expert faculty in accredited Bible colleges who, according to their presidents and deans (i.e., gatekeepers), have been especially effective in shaping the Christian worldview of their students. The notion of what constitutes an “expert” in this type of instruction is also a limitation, despite noteworthy research on this level of ability done in other educational contexts (e.g., Hattie & Jaeger, 2003). To assist with this issue I offered gatekeepers some criteria observed in the literature from which they could consider a nominee. A further limitation exists in that gatekeepers nominated faculty based on their observations and opinions on what constitutes effectiveness in this type of instruction. Nevertheless, the purpose of this research was to determine what factors these teachers consider, what instructional design direction they take, and what methods of assessment they employ.

Research in a grounded theory approach is valuable for rich exploration of a topic, especially where a clear theory is not yet established. As a result, this approach did rely on interpretative skills from the researcher to define and redefine the meanings of what they observe and hear (Stake, 2010). Therefore, the rigor of this study was dependent on my ability as the researcher to bracket my own professional biases and rely upon my adherence and commitment to rich, thick description as part of validation.

Delimitations include the sample coming only from Bible colleges in Canada and the United States accredited with the Association of Biblical Higher Education (ABHE). Therefore, neither the perspectives of non-North American educators nor teachers outside of accredited

higher education were included in this study. Theory testing within more schools of Christian higher education and within broader socioeconomic and cultural settings will provide better understanding of pedagogical factors and strategies that could strengthen theoretical understanding for professional practice.

Due to convenience, this study is delimited by my choice of church tradition affiliation for the sample. Given that ABHE affirms tenets of faith that are broadly Protestant, member colleges will come from this Western church tradition. I took measures to ensure diverse theological representation of the Protestant tradition in the sample.

A final delimitation is the participants must be contemporary, active professors. As a result, recently retired or former teachers were not included even though they could certainly offer some insights. The sample interviewed were delimited to those nominated and did not include the perspectives of students. While the views of students would be helpful to include it is beyond the scope of this research to include this sample. Chapter five addresses any suggestions for further research, which includes students as a unit of analysis.

Significance of this Research

This study of pedagogical expertise in Christian worldview formation is significant for many of the same reasons observed by Schlitz and her colleagues (2011). Educating for this particular worldview and the interests of biblical higher education face similar challenges inherent with the gathering of diverse cultures into closer contact and increased connection with previously isolated people groups. Thus, Christian education shares similar theoretical constructs with secular education researchers. For example, training the intellect together with the cultivation of emotional and social intelligence is in keeping with Hiebert's (2005) description of the Bible college movement's focus on character with competence education.

The key difference lies in the nature of the worldview under development and the mission or purpose that guides developing students to live according to its assumptions and values. In addition, the way a teacher sees their role matters greatly and is a reflection of worldview as well. For example, Knight (2006) believes that education should be seen as a redemptive act because it involves restoring the image of God in students. If viewed that way, then the role of a teacher becomes an agent of reconciliation representing God's interests and acting as catalyst in that transformation. Effective teaching in this context then becomes a spiritual and social responsibility essential to the character formation of students (Fong, 2009).

Summary

This chapter establishes the background and purpose for this qualitative study of worldview pedagogy, which used personal interviews with expert teachers. I transcribed and reviewed the interviews for deep familiarization, coded and delineated them for themes, and then pulled the findings together into a concluding theory. The literature review explores the concept of worldview in both historical overview and pedagogical application within the educational context. The focus is primarily on phenomenological studies and grounded theory approaches that attempt to form a theoretical framework for worldview pedagogy. These studies provide support for continuing professional competence in teachers and developing theory and policies that shape both curriculum design and teaching practices.

CHAPTER TWO

Review of the Literature

Worldviews are comprised of beliefs, values, assumptions, and volitions that provide the rationale for how people understand and order their lives. The influence of a person's worldview can be conscious or unconscious and is associated with educational issues such as identity formation, approaches to ethics and problem-solving, understanding systemic relationships, and citizenship (Jordan et al., 2008; Matthews, 2009a). The concept has significant importance in Christian education to the point where several institutions claim that the formation and guiding assumptions of a Christian worldview are central to their mission (Grauf-Grounds et al., 2009; Kanitz, 2005).

This review of the literature presents prominent factors and strategies discussed in research related to pedagogy and Christian worldview. Several empirical studies along with select methodological essays are explored with four main themes emerging: a) the role of worldview in education, b) subject areas most related to worldview formation; c) the belief characteristics of teachers and students, and d) instructional and assessment strategies in the field.

The Role of Worldview in Education

Educators often consider worldview something implicit and integral in the processes and outcomes of learning in a variety of subjects (Daniels et al., 2000; Matthews, 2009b). Williams offers a concise conceptual definition of a worldview as “a set of concepts that assembles everything else we believe into a coherent whole” (2002, p. 18), thus positioning the idea within the pursuit of coherence – i.e., internal agreement. A person's worldview informs his or her notion of reality as well as their approaches to theory, methods, analyses, and interpretation of

data (Tudge, 2000). As Baumann points out, worldviews “provide for the majority of individuals in society, not only a descriptive and normative vision of life, but also framework for developing ways of operating in the world” (2011, p. 9). Even spiritual formation studies flow from this broader and more foundational framework (Setran et al., 2010; Shimabukuro, 2008). As Bufford puts it, “Worldviews are like sand at a picnic; they get into everything” (2007, p. 293).

Many scholars use the term *worldview* to translate from German the words *Weltanschauung* and *Weltbild*, although the latter translates better as “world picture” in English. The German historian and philosopher Wilhelm Dilthey (d. 1911) was the first to use these terms when he constructed a typology for conceiving views of humankind’s relationship to nature. Through the writings of several key thinkers, this period also gave rise to several related ideas such as *Weltauffassung*, *Weltansicht*, and *Lebensanschauung* (Badii & Fabbri, 2011). Dilthey’s goal was to expand Kant’s primarily cognitive-focused *Critique of Pure Reason*, first published in 1781, in order to do justice to the full scope of human lived experience. Dilthey felt this new critique must proceed based on the psychological laws and impulses from which art, religion and science all derive (Makkreel, Summer 2012 Edition). In fact, he sought to interpret various phenomena of religious experience a few times in his writings. Dolan reports that Dilthey claimed the purpose of a worldview was “to illustrate the relationship of the human mind to the riddles of the world and life” (2010, p. 16).

In the preface to the *Introduction to the Human Sciences* (1989), Dilthey refers to his project as a “Critique of Historical Reason,” positing a worldview typology as “typical” to life (as opposed to Max Weber’s notion of “ideal types”) in three categories representing not just a rational pattern, but a total life attitude as organizing centers:

- Naturalism – wherein people see themselves as determined by nature.
- Idealism of Freedom – wherein people are conscious of their separation from nature by their own free will.
- Objective idealism – wherein people are conscious of their harmony with nature.

In recent years, the secular humanist tradition of philosophy and education has used closely related terms such as consciousness (Schlitz, Vieten, & Amorok, 2007), lifestance, or eupraxsophy (Kurtz, 1994) in parallel discussions on social wellbeing, ethics, and exuberant living.

Several Christian theologians and philosophers in the first half of the 20th century adapted Dilthey's ideas in forming the worldview concept to fit within their theistic framework (Wood, 2008). Some of the most notable include James Orr, Abraham Kuyper, and Herman Dooyeweerd (Dolan, 2010; Naugle, 2002; Sire, 2009). Since that time, discussions and education related to the Christian worldview have employed two common metaphors: a) seeing – a way of viewing the world, and b) walking – a manner of living in the world (Kanitz, 2005). A great deal of attention to Christian worldview has occurred over the past three decades, focusing on two primary emphases: a) conceptual discussion and refinement (Bertrand, 2007; Naugle, 2002; Sire, 2004; Walsh & Middleton, 1984), and b) apologetics-oriented analysis and response training for understanding competing worldviews (Burnett, 1990; Geisler & Watkins, 1989; Nash, 1992; Sire, 2009; Wilkens & Sanford, 2009).

Reception to the term “worldview” ranges from strong adherence to ambivalence across Christian education traditions, which has produced a lack of conceptual consistency. Kanitz (2005) acknowledges that there are, in fact, multiple Christian worldviews largely due to differences in our interpretive communities. Evangelicals, for example, tend to position the

concept within intellectual discussions on the integration of faith and learning (Badley, 1994; Harris, 2004). Conversely, non-Reformed traditions such as Catholic, Wesleyan, Lutheran, Pentecostal, or Anabaptists are not as comfortable with an integrationist approach, preferring the “walking” metaphor with its emphasis on faith in action.

de Oliveira (2006) adds an important point by positing limitations in the two major terms used most often by Christian writers: Christian Worldview and Biblical Worldview. He believes the former tends to use an idealistic, philosophical, and intellectual approach while the latter emphasizes a scriptural and expositional approach. The author proposes that the term *Biblically Shaped Worldview* is more accurate and preferable because it “frees the church in various cultural settings to be united in Christ, but still maintain its cultural identity and peculiarities” (de Oliveira, 2006, p. 176).

Naugle (2002) points out in his historical overview of worldview that the Reformed tradition has struggled with the suitability of the concept for use in Christian discussions because of its nuances of relativism. Therefore, the author proposes a four-part process to naturalize the worldview idea for Christian usage, which works for those in the Reformed tradition. However, broader buy-in to the conceptualization of worldview reaches limitations when scholars take a hyper-philosophical approach that requires professional educators to think more like philosophers instead of instructional designers (Jacobsen & Jacobsen, 2004). Nevertheless, educating for worldview formation does need to wrestle with important philosophical ideas and goals that are already influencing students by the time they arrive in the college setting. This period is vital because many are emerging into or even re-shaping their adult identities. In fact, Smith (2009) refers to typical college-aged students as souls in transition. Once in the classroom, teachers enter intellectual and practical ground already populated with various

worldviews firmly entrenched and competition for developing a faith stance is tight (Kanitz, 2005; Setran & Kiesling, 2013).

Jacobsen and Jacobsen (2004) argue that the integrationist model in Reformed theology has made scholars too combative with the rest of the academic world. They caution that the worldview concept is losing its former power due to a shift in academia away from all-inclusive theorizing about the nature of the world to smaller-scale aspects examined eclectically. They say this shift is moving away from precise, bilateral, Cold War thinking (i.e., an inability to give up balance-of-power politics) to something more decentered, multilateral, and postmodern in orientation. The authors write:

Contemporary ways of thought and life are less concerned with the norms of logic favored by the worldview approach and much more concerned with the quirky and often unpredictable ways things actually fit together in their local and global environments.”
(2004, pp. 27-28)

The authors acknowledge the traditional abstract, overarching approach to worldview from the integrationist perspective still has value but suggest that scholars will have to develop more specific, relatable ways to integrate faith and learning.

A key educational benefit to worldview study is that it makes a person alert to the presuppositions they hold as well as those of others. A lack of such awareness can cause significant personal and social bewilderment. Edlin (2009) compares this to the official versus operational curricula in a typical school. He says the former appears on websites, accreditation reports, and catalogues stating what the school will do for students. On the other hand, the operational curriculum is what actually happens in the classroom and general school ethos. The two curricula can be quite dissimilar. The author says the same can happen with a person's

Christian worldview. For example, a Christian can claim a biblically faithful worldview yet, at the same time, be vulnerable to deceptive cultural influences that make their operational lives quite inconsistent with biblical truth (see e.g., Wilkens & Sanford, 2009). Another caution for teachers is equating doctrinal assent with spiritual advancement or worldview change (Mittwede, 2013). Transformation is not the same as intellectual agreement, although the latter is easier to assess.

Similarly, Belcher (2009) explores the question whether the core of education is really the education of the heart. It is a foundational question based on Naugle's (2004) premise of human life proceeding *kardiopically*, which means out of a vision of an embodied heart living in the world. Belcher's intent is to use narrative inquiry to explore what impact a Christian educational institution has on adherents over time. She hopes to describe ways in which one specific Christian institution does or does not live up to its mission statement by examining the worldview/values/praxis of its alumni. Her research seeks to understand spiritual and kardiopic worldview literacy. As of this date, she has yet to publish her findings.

Viewing the pedagogical formation of the affective before the cognitive is similar to J. K. A. Smith (2009) who argues that contemporary Christian education focuses too much on worldview analysis and integration. He insists that we "feel our way around our world more than we think our way through it. Our worldview is more a matter of the imagination than the intellect, and the imagination runs off the fuel of images that are channeled by the senses" (2009, p. 57). He calls those images *pre-cognitive drivers* that lead us to worship before we ever articulate a worldview. The author claims that pedagogical approaches that fail to incorporate embodiment and practices of worship tend to default to propositional and cognitive concepts of worldview (cf. Mittwede, 2013). Nevertheless, while Smith still acknowledges the importance

of the latter aspects, his point is that teachers should “situate the cognitive, propositional aspects of Christian faith [as that which emerges] in and from practices” (2009, p. 191). Thus, he insists, Christian colleges should permeate with ecclesiastical liturgies alongside and within academic study to influence students’ pre-conscious desires as they shape the more intellectual aspects of worldview formation.

Certain theological themes play a role in designing strategies and outcomes in Christian education. Daniels and her colleagues (2000) are guided by two main themes: a) understanding of the nature and condition of humankind as both made in God’s image yet corrupted by sin, and b) recognizing the nature of community as based in reconciliation with God through Jesus Christ. As a result, teaching strategies that encourage students to recognize the behaviors they choose both reflect and contribute to the development of their character. Students are also encouraged to appreciate they exist in an interdependent web of relationships. Smithwick (2004) however focuses on the nature of truth as interpreted through the Bible. Therefore, learning outcomes are centered on how Scripture guides ethical, moral, and legal reasoning as well as regarding the truth God has revealed as absolute for all times.

Resolving basic educational problems often involve interdisciplinary cooperation and multiple perspectives (Matthews, 2009; Tudge, 2000). These perspectives are open to challenge and, at times, require change. Raising students’ worldview consciousness is critical for these interactions. For example, Jordan, Bawden and Bergmann (2008) designed a university course to equip students for critical engagement with others around collective learning. Their approach teaches students how to learn cooperatively and appreciate different levels of cognition as they make inter-connections in systems of learning. This approach allows students to demonstrate

greater appreciation for the characteristics of worldviews and differing perspectives along with the tensions involved when exploring complex issues.

Koltko-Rivera (2004) brings up a key point central to this topic which he calls *worldview malleability* – a characteristic that affects all deliberate efforts to influence or change a person’s worldview. The idea is important to teachers as well as many other disciplines including counseling and clinical psychology, health, peace, and educational psychology. His primary concern is with comparing how worldviews are similar to or different from other beliefs and attitudes in resisting attempts to change them. While there is a copious amount of literature regarding attitude change, that knowledge has yet to be extended specifically to the matter of worldview malleability. Similarly, de Oliveira (2006) acknowledges that a person’s worldview does not completely change once becoming a Christian. Rather, it transforms while retaining certain cultural and even theological diversities.

While worldview pedagogy does take place in the classroom involving a strong cognitive component, crucial aspects such as social, moral, and spiritual development take place in other non-academic areas of the college experience (Sherr, Huff, & Curran, 2007). Krakowski (2008) even argues that a worldview emerges from both the activities individuals engage in and the beliefs they maintain. Schlitz, Vieten, and Miller (2010) explore a similar focus concentrating on the role of worldview transformation as it relates to developing explicit social consciousness. They claim that as worldviews transform, they adapt to include increasing levels of awareness of how people are interrelated to the world around them, which then influences prosocial perceptions and actions – an objective that shares much in common with Christian higher education. Given their research aims at developing social consciousness, it is not surprising this methodology resembles a progressive educational philosophy using cognitive constructivist

learning theories. Overall, co-curricular programming in higher education can also set objectives for raising worldview awareness, reflecting on its messages, and setting distinct formation goals. Clearly, several aspects of the educational experience are influential to worldview formation.

Overall, faculty seeking to integrate faith and learning must begin by clarifying their assumptions behind the Christian worldview because, as Kanitz (2005) points out, there are no universally agreed upon criteria. Therefore, she cautions teachers about presenting Christian worldview as a unified concept. As a result, encouraging students to think Christianly about a subject requires educational approaches that raise consciousness of an array of influences and processes by which a person determines a biblical principle (Kanitz, 2005).

How Worldviews Develop and Change

The literature often focuses on the descriptive and normative functions of a worldview. However, this research builds upon other works that examine the educational processes of worldview development. Baumann (2011) states that a worldview develops as part of the essence of being human; therefore, it is also a socio-psychological process. He explains that the worldview a person initially adopts is largely determinative, based on the foremost perspective of the culture into which he/she is born. He explains further:

As we interact with people who are more competent because of experience and greater socialization in the dominant worldview, we begin to assimilate the cultural tools (i.e., the values, attitudes, language, customs, etc.) that allow us to interact with the world and people in meaningful and predictable ways. (Baumann, 2011, p. 19)

A worldview changes in conjunction with other important areas such as cognitive, moral, social, and intellectual development as well as a person's socialization into a culture. Hiebert (2008) agrees with these areas but also includes the affective (feelings) and evaluative (norms

and decision-making) aspects of transformation. He also acknowledges that, in general, worldviews change in either of two ways: through growth processes or through some type of radical shift.

Kennedy and Humphreys (1994) address this in the context of therapy of psychological healing, pointing out that worldviews typically change as people become more active interpreters of their environments. Conversely, worldview changes also occur with reactions to traumatic events because these experiences have power to alter a person's unconscious assumptions. The authors point out that successful recovery from such events requires a conscious examination of these assumptions under the care of a professional and/or in mutual help groups. They point out as well that worldview change involves more than just beliefs; important behavioral changes such as abstaining from substance abuse, practicing more prosocial relational skills, or acting with greater integrity and honesty tend to accompany modified beliefs with major worldview changes.

Baumann (2011) discusses worldview development by first referring to Wolterstorff's (1999) ideas about data beliefs and control beliefs as each relates to knowledge acquisition. The latter are presuppositions or assumptions taken to be true and thus do not need to be defended or supported. Wolterstorff claims that a worldview becomes established in a person when control beliefs and their corresponding values are reinforced by a particular communal group. As a result, Baumann explores how control beliefs come to be by first referencing developmental psychologists, most notably the theories of Jean Piaget and Lev Vygotsky, who have long been engaged in attempting to understand how people make sense of the world around them. Baumann first discusses Piaget's approach, which emphasizes the inherent curiosity in children who tend to develop crude hypotheses that become more complex as they engage in further

experimentation. He believes that Piaget would view worldview development as an individual and active process, which is a confrontational dynamic necessary for orienting ourselves to our world. As a result, a Piagetian perspective emphasizes a sense of disequilibrium that motivates an individual to resolve or alleviate the conflict, thus bit by bit forming a worldview.

In contrast, Vygotsky's views emphasize the social activities and interactions a person experiences with those more competent and knowledgeable about the world. Baumann explains the move from data beliefs to control beliefs here describes Vygotsky's notion of internalization. The process is similar to Piaget's cognitive development approach but emphasizing instead the tools used to mediate or resolve conflicts come from the resources within the person's social or cultural relationships.

Baumann's purpose in referencing both Piaget and Vygotsky is to highlight the passive (or receptive) and the active natures of worldview development. He sums up by stating:

All people possess a worldview; its development begins at birth through our primarily receptive interaction with the social environment. While we are active agents that initiate interaction with the world (as indicated by Piaget), the resolutions of these interactions tend to be structured for us by the cultural context into which we are born (as emphasized by Vygotsky). (2011, p. 15)

What then accounts for a change in a person's worldview as they age? Early models of human development gave the impression that psychological maturity was largely complete by adulthood. However, current theories are exploring the notion that worldviews continue to develop throughout the lifespan (e.g., Schlitz, Vieten, & Erickson-Freeman, 2011). Schlitz and her colleagues explore these transformations, which they describe as "a fundamental shift in perspective that results in long-lasting changes in people's sense of self, perception of

relationship to the world around them, and way of being” (Schlitz et al., 2010, pp. 19-20). Their work extends from Schlitz’s original work with the Institute of Noetic Sciences on developing a non-linear model of worldview transformation. Schlitz quotes one of her research interviewees who states: “A transformation in [worldview] affects a kind of double vision in people. They see more than one reality at the same time, which gives a depth to both their experience and to their response to the experience” (2007, p. 14).

Schlitz notes in several of her works a distinction between minor and major changes in worldview. She explains the latter as relatively rare and involves a complex reorganization of conceptual structures, both in the features of such structures and how they compare to different conceptual structures. These tend to occur within normal processes of psychological development/maturation as people grow in knowledge and experience. Hiebert (2008) also acknowledges these types of changes, calling them incremental worldview shifts that usually occur in response to cultural changes at the surface level. Examples of these include advances in medicine that can change how people view the threat of disease or new technologies that put people in touch with previously unknown cultures. However, both Schlitz and Hiebert point out that major, transformational changes in worldview involve deeper epistemological shifts in a person as well as who they understand themselves to be at an ontological level. These are the kinds of transformations Kennedy and Humphreys observe in mutual help groups (1994)

The following steps in the Worldview Transformation Model (also called the Consciousness Transformation Model) are a result of Schlitz’s work with the Institute of Noetic Sciences, which she develops further in her subsequent research (cf. Schlitz, Vieten, & Erickson-Freeman, 2011; Schlitz et al., 2010):

1. The first step requires attention toward greater self-awareness. Danger = deny these experiences.
2. Explore with intention; begin forming an inner compass with which to navigate and make more conscious life choices. Danger = fall into a pattern of continual seeking.
3. Practice repetition of new behaviors and the building of new habits. Danger = Practice becomes an end rather than a means.
4. Integrate practice into everyday life; a way of living into new patterns and behaviors. Danger = practices become all about me.
5. Moving from I to We. A desire arises to work actively toward the transformation of their community. Altruism and compassion born of shared destiny rather than duty or obligation can emerge here. Danger = backsliding to being all about me.
6. Living deeply. Engaging in relationships to experience healing, forgiveness, and compassion; growing in wisdom.
7. Bring new worldview into community; work with others to co-create or shape the social environment and experience collective transformation.

Schlitz and her colleagues (2007) note that transformational practices do not always work in the linear, goal-oriented ways that educators may be accustomed to in modern curriculum design. Instead, they assert such practices often work indirectly; creating conditions whereby natural processes of awakening and growth take place. Overall, the worldview transformation model presented here is unique among all literature reviewed for this dissertation and provides a helpful resource for comparison to the theoretical coding that emerged in this project.

Subject Areas Most Related to Worldview Formation

One may presume that an abundance of material on this subject would focus on biblical or theological studies; however, this is not the case. The preponderance of literature focuses on pedagogical factors and strategies for worldview development related to values or moral education and ethics. This suggests a stronger conceptualization of worldview as a manner of living in the world (i.e., the “walking” metaphor) among educators. For example, Carr and Mitchell (2007) argue that discussing values, virtues, or character education only makes sense if teachers and students recognize the prior influence of worldviews or philosophies. They lament a shift seen in Australia away from moral and character education to an emphasis on quality teaching perceived only as a technical enterprise. The authors cite Masters (2003), who defines teaching as simply the application of expert knowledge and skill that achieves improved student learning outcomes. The authors say approaches like these marginalize the development of morality, character, spirituality, wisdom, and wonder in the pedagogical agenda.

Similar to worldview formation, Thomas points out that educators of moral development also “seek to understand how the moral self attains a state of coherence (internal agreement) and what the relevant factors were that led to such a reality” (2014, p. 31). The author explains that scholars explore these issues so they can establish better programs and pedagogical approaches that produce the morality in students that society desires.

Other teachers design pedagogy for ethics and values by critiquing culture and morality from a Christian perspective (Barron, 2010; Collier & Dowson, 2008; Danaher, 2009; Meyer, 2003). This approach complements the study of character and leadership because the two are seen as mutually dependent. Thus, leadership and values education are a foundation for decision-making and worldview (Darko, 2009; Fowler, Dickens, & Beech, n.d.).

Carr and Mitchell (2007) tie their emphasis on worldview and values to pedagogy employed in English literature courses given that the subject is a natural point of departure for examining worldviews. Their students spend time examining a range of texts where human behavior set within interpersonal, familial, and societal contexts. Their purpose is to have students delve deep into the text to discover the basis for the worldviews observed. They believe these exercises equip students to make more informed decisions and judgments about their own values, which will strengthen commitment to those values in times of hardship and pressure.

Other subject areas that touch on worldview development include diversity, globalization, and citizenship (Carr & Mitchell, 2007; Jordan et al., 2008; N. L. Smith, 2013). Common themes for pedagogical design here include linking curriculum to students' experience and culture, collective learning assignments, in-class debates about moral dilemmas, and using concrete stimuli to illustrate abstract concepts. The goals here revolve around students' learning empathy, tolerance, critical thinking, and global awareness.

The field of psychology is also present in the pedagogical literature through its acknowledgement that the human cognition and behavior are powerfully influenced by the worldview construct. Koltko-Rivera (2004) explores implications to teaching psychological theories of personality, cognition, education, culture and conflict, faith and coping, and even war and peace. He observes that worldview formation lacks serious research and theoretical formation within psychology and recommends key areas of investigation include the roles of early caretakers, social institutions (e.g., education and religion), cultural standard-bearers, cultural outsiders, and crucial events over the life span.

The Belief Characteristics of Teachers and Students

The literature demonstrates that teachers play a significant role in influencing the worldview students adopt and how they learn to adapt it over time (Darko, 2009; Fyock, 2008; Wolf, 2011). Andersen (1996) suggests the very nature of the teacher's role will carry this influence despite the teacher or students' desire. In fact, Schlitz and her colleagues insist the role of the teacher should be given more attention because the classroom community forms according to the example of the teacher who "models coming into an awareness of how to listen for the value of each person's perspective and dialogue across difference" (Schlitz, Vieten, Miller, et al., 2011, para. 43). When teachers and students both open up to communicate authentically about worldview issues it can redefine students' direction and growth. Andersen (1996) refers to these as "transforming spiritual moments" and teachers must take the responsibility of being a positive change agent. Fong (2009) agrees, seeing her faculty role as a social responsibility rooted in the biblical image of sanctification and toil. Her belief is that teachers work to help refine students' spirits to align with God and to work against evil so that the Lord's goodness will reign.

Other influential characteristics include the teacher's ability to integrate Scripture into the subject matter, role-modeling and mentoring students in faith, and genuine Christian conduct in daily life. Teachers have also found ways to apply a religious perspective in the public school system by drawing appropriate attention to character development, particularly moral virtues, which finds common ground in the diversity of school environments (Glanzer & Talbert, 2005). Overall, the literature demonstrates that a teacher's genuine example is one of the most important factors in transforming students' attitudes and behaviors. The teacher is seen as an expert due to their own experiences in worldview exploration and commitment (Ter Avest et al., 2012).

However, some survey evidence suggests this influence is not always positive, indicating that teachers do vary in the strength of their commitments to a Christian worldview (Brickhill, 2010; Wood, 2008). Data taken from graduating students in some Christian schools indicate faculty have done little to reframe their students' engagement with culture, which has allowed voices of humanism and socialism to have stronger influence. Wood (2008) suggests that schools that require faculty to subscribe to a more robust theological position than those who only define a shorter, general statement of faith would see a stronger commitment to teaching a biblical Christian worldview. However, Collier (2013) cautions teachers to ensure that their instructional processes do not smack of indoctrination because a school is not a church. Specifically, it is not a platform for preaching a strong Christian message of obedience or conformity. He encourages teachers to allow students space to think critically. Teachers who approach education dogmatically risk ethical contraventions in terms of abusing the power gap between teacher and student.

Walker (2004) argues that increasing diversity and globalization require teachers to develop intercultural competencies. Certainly, this is a primary issue for teachers who work cross-culturally. However, cultural intelligence is becoming necessary for everyone because boundaries and interconnectedness between countries are more fluid than ever. As a result, the worldviews of some students may stand in contrast to the worldviews of teachers raised and educated within a Western society. For example, Walker (2004) describes the challenges faced by educators who work in traditional Arab school settings that face issues of violence between students or toward teachers because the cultural context has normalized such behavior. Teachers who work cross-culturally would benefit from reviewing material from the GLOBE Studies (House, Hanges, Javidan, Dorfman, & Gupta, 2004) that generated abundant data on the

relationship between culture and leadership. Given that teaching has strong leadership images for many people, this project helps with increasing our understanding of cross-cultural interactions and the impact of culture on leadership effectiveness.

As for students, researchers cite surveys indicating that many church-attending youth and young adults hold distinctly non-biblical perspectives. Examples include a rejection of the existence of absolute truth, inability to see the relevance of faith outside of church attendance, viewing core biblical teachings as outdated or wrong, and the high percentages of teens who stop attending church after high school graduation (Abshier, 2006; Brickhill, 2010). Other confusing areas for students include the nature of morality, knowledge, and truth when determining moral absolutes, especially when they realize that credible authority figures do not agree on these; thus students begin to consider absolutes to be the exception rather than the rule (Meyer, 2003; Setran & Kiesling, 2013).

Acree (2003) warns teachers not to make unwarranted assumptions about students' thinking processes, especially related to the influence of postmodernity. She states that students do not automatically see contradictions between biblical values and secular theories. Instead, they appear to take a piecemeal approach – viewing biblical values as just one of many approaches to a subject matter and not necessarily the true or preferred one. Therefore, teachers should assume the piecemeal approach to be the norm and include pedagogical practices that push students to confront inconsistencies.

Ter Avest (2012) recommends that teachers take advantage of what she calls the “natural tendency of risky behavior” of students to provoke them to think deeply about religious and secular answers to existential questions. Her focus is on brain development, identity development theory, and the place of critical thinking in worldview formation. She points to

research that shows the developmental stage of certain parts of the brain in puberty and early adolescence might hinder students in managing the consequences of their actions. For example, students that are college-age and just leaving home are especially vulnerable as they explore alternative ways of thinking and living. As a result, Ter Avest claims that students have a natural need for risky behavior and recommends what she calls a “provocative pedagogy” that openly deals with issues related to identity development in both a challenging and caring approach.

Cooling (1994) argues for a similar approach, claiming that teenagers almost invariably go through a stage of “bafflement” – struggling to relate what they know about Christian faith to their emerging understanding of the world, particularly the presence of pain and evil. Collier warns that a pedagogy which “closes down discussion by glib and formulaic answers, may very well lead to a faith cessation or to a retreat into fundamentalism, where the real world is kept at bay by an ideological enclosure” (2013, p. 6). Effective pedagogy must give students space to wrestle with such problems within a nurturing structure.

Overall, teachers in Christian schools should acknowledge that several factors might play a stronger influence on students’ worldview development than formal learning. These include type of school attended for compulsory education, church involvement, personal faith commitment, and parental modeling of genuine faith (Brickhill, 2010).

Instructional and Assessment Strategies in the Field

Pedagogical goals. Borrowing from Cobern’s (1996) warfare metaphors, worldview pedagogy activities are tactical devices used to reach small-scale objectives (i.e., sound doctrine, godly ethics and morality, etc.) within a strategic framework for reaching the large-scale objective of faithful Christian life and ministry. The most common pedagogical goal observed in the literature is raising worldview consciousness. The ability to recognize and respect the logic

and moral foundations behind personal perspectives is necessary for the skills that foster collaborative learning, personal prioritizing, and decision-making (Jordan et al., 2008; Schutte, 2008).

Holistic learning appears in the worldview literature, usually in response to the dangers of compartmentalized learning. For example, Setran et al., (2010) point back to the influence of the positivist ideal that separates facts from values. Such ideas allowed faculty to transfer spiritual formation or life application to those outside the classroom while they concentrated on pure academic instruction. The authors posit a rationale for pedagogy that facilitates students' connection of the analytical side of learning with the applied aspects of worldview. While many teachers espouse this pedagogical principle, factors such as school culture, resource constraints, or fear of losing academic rigor can diminish its actual pedagogical practice. Setran and his colleagues warn that failing to take full advantage of worldview pedagogy will weaken the formative potential of students' college years.

Finally, Daniels et al., (2000) advocate a liberating goal for Christian worldview pedagogy by claiming it brings much more meaning to life and provides better ways to evaluate success. While their goal is to counter an overemphasis on materialism, they point out that material gains can come as by-products to broader, transcendent priorities.

Transformational learning. Recent models of pedagogy have arisen to counter the limitations of what some writers call the *transmissional* model, which typically features passive, theoretical transmission of information directly to students who respond with mostly independent assignments. Collier and Dowson (2008) examined the pedagogical limitations of this model in one K-12 Christian school experiencing difficulties in transforming students' attitudes and behaviors. Their criticisms of the transmissional model include a lack of participatory

exploration, the failure to address the underlying values already within students, and inability to equip students for applying knowledge across different contexts.

The authors explore the school's attempt at an alternative pedagogical approach they call a *transformational* model. The hope is to gain active participation of students in the processes of belief and values education. The pedagogical design links a Christian ethical framework to issues in popular culture, thereby allowing students to critique culture from the perspective of a Christian worldview. The strategy features components such as cognitive scaffolding, debating popular culture and relevant moral or ethical issues, practical service learning, and strategic partnerships with local churches. The model was at its initial stages of implementation at the time of the authors' writing. As of 2015, Collier and Dowson have yet to publish further research that evaluates the outcomes of this approach.

Critical pedagogy. Teachers use this educational philosophy to focus on analyzing world events, controversial issues, and diversity in hopes of leading students into a vision for better world and social change (Cohen & Gelbrich, 1999). vanSpronsen (2011) uses this as an important approach in his research into student resistance at a Christian school where a disconnect between attitudes and behaviors lies at the root of conflict. Bartolomé (2007) describes critical pedagogy as typically concerned with educational theories and practices that encourage both students and teachers to understand the interconnecting relationship between ideology, power, and culture. Given that his research takes place in a Christian school, vanSpronsen insists the formation of worldview “not only impacts the attitudes, behaviors, and motivations of students, it also impacts how these are interpreted and understood by the broader school community” (2011, p. 4), especially in the midst of conflict with authority figures. The

pedagogical approach has considerable merit given that critical pedagogy, at its heart, sees education as an instrument of change for transforming the world into a better place.

Constructivism. The constructivist approach believes that students excel through building new knowledge upon existing knowledge as they interact with the subject matter and their environment. Constructivist pedagogies attempt to identify the issues around which students actively construct meaning. This type of learning keeps students actively engaged, generates creativity, and achieves a deeper understanding of the content. It is a popular approach in philosophy and educational disciplines. Lee (2010) has even edited a volume that deals specifically with the use of constructivism in faith-based educational environments.

Danaher (2009) applies a constructivist pedagogy to a Christian ethics course. The literature often addresses ethics as a key element in worldview formation (e.g., Brickhill, 2010; Daniels et al., 2000). Danaher chose this approach due to feedback from students who desired active learning, customizable assignments, and engagement with issues relevant to their roles as clergy. The authors use three variants of constructivist pedagogies in course construction: learner-centered, inquiry guided, and problem-based. The instruction featured more dialogue, open-ended questions, and focus on pertinent ethical issues. Danaher observed that students responded to these teaching strategies, especially learning-group research projects, with greater levels of creativity, depth, and breadth not found in traditional modes of pedagogy.

Mittwede (2013) takes a more abstract and technical approach by exploring subsumption and schema theories, especially those popularized by David Ausubel (1960) and Richard Anderson (1977). These provide helpful frameworks for understanding how a person incorporates new knowledge into his or her cognitive structures. His purpose is to explain how worldview transformation can occur through classroom theological education, which he defines

as “remodeling that renews the vision of the learner-disciple in such a way that informs and directs concrete actions in real life” (2013, p. 316). Mittwede addresses a key problem of teaching for worldview-level change, which he describes as a ‘knowledge dump’ view of instruction characterized by staid lecture methods. The author does give examples of application from his own teaching experiences that attempt to incorporate these subsumption and schema theories, portraying a constructivist approach suitable to worldview formation characterized by an emphasis on classroom discussion, interpretive interaction with texts, and active learning through presentation projects.

Overall, Danaher’s observations from students’ qualitative evaluations indicate that while constructivist learning is possible for all classes it is probably most effective in smaller ones. He claims that constructivist pedagogies develop students’ analytical and reflective abilities with the concepts of Christian ethics, thus equipping them to be life-long learners with ethical issues and situations.

Experiential and social learning. Jordan, et al., (2008) provide a thorough design for pedagogy that prepares students for communal debates about complex and controversial issues in an environment where prevailing worldviews vary among different stakeholders. While the authors’ context is the field of agroecology, their study has relevance for this review because of its transferrable pedagogical practices. This approach trains students to examine individual and collective worldviews and mindsets critically while responding to innovative changes occurring in their environment. The authors use experiential learning within group exercises that require students to create a systemic analysis of alternative scenarios for future planning. As students reflect on and experience the social learning required for group debates, the pedagogy focuses on three levels of cognitive processing: cognition, meta-cognition, and epistemic cognition. Each is

involved in solving problems, working with tensions, and planning for future development. A key outcome is students learning how to appreciate, challenge appropriately, and change prevailing worldviews in themselves and others.

Jordan, et al., report that their most effective teaching strategies include: a) the use of concrete stimuli – such as evocative photography – to trigger emotional aspects of individual values, b) exercises that require articulating the worldview of another person, and c) group debriefings on commonly read resources. The pedagogical goal is to immerse students in complex issues and problems rooted in worldviews. As students learn to understand others, they also learn how to work together toward solutions. This is a valuable approach for use in theological, moral, and ethical debates around Christian issues where worldviews also vary among differing stakeholders.

An important addition to the literature is D. I. Smith and J. K. A. Smith's (2011) edited volume featuring chapters from several university professors who describe their efforts to incorporate historic Christian practices into their pedagogical strategies. The contributing authors reflect on how experiential practices such as hospitality, fellowship, testimony, sharing a meal, time keeping, and adhering to a liturgical calendar enhance their instructional design in college courses across a variety of disciplines. The unifying theme to the book is a search for ways to reimagine teaching and learning in a Christian environment that does not just transfer information but rather actively engages students' worldview formation in all things toward God's purposes. Three distinct pedagogical models emerge from this book: supplemental, sacrificing, or synergizing approaches. In the first, teachers concentrate on supplementing traditional academic pedagogy with complementary Christian practices. In the second, the attention turns to sacrificing from current teaching habits to prepare students better for formational engagement.

Finally, the third model sees pedagogy synergizing academic and Christian practice standards to produce an effect far greater than the individual parts.

Program design for professional studies. Fowler, Dickens and Beech (n.d.) articulated a position paper for the National Institute for Christian Education (NICE), which provides postgraduate training in teacher education in Australia. NICE affirms as a best practice the awareness and use of knowledge based on a wide variety of worldview positions because teachers encounter the same realities at other tertiary institutions. NICE requires all students to complete two core units of study that acquaints them with foundational literature from which a Christian worldview perspective is derived. The units also review the nature and role of worldviews along with their role in education.

The authors go on to state that dogmatic attitudes that assume the superiority of educational ideas and practices endorsed only by a Christian authority, or by any other single authority, exhibit poor scholarship. Their leadership track encourages students to critique assertions that coherence is achieved through a biblical worldview, which helps identify inconsistencies in applying this worldview to educational leadership. The key themes they look for include servant leadership, accountability, nurture, supervision, example and vision setting.

A particular challenge to educating within a Christian worldview is teaching professional studies that do not have a distinctly Christian language or knowledge base. Grauf-Grounds and her colleagues (2009) report on the program design used in a Marriage and Family Therapy (MFT) program situated within a Christian university. The goal was to create a pedagogy that is both faithful to a broad Christian worldview as well as to MFT professional standards. The authors believe it is at the worldview level that a professional who is also a Christian must compare and work with the basic tenets of various belief systems and disciplines.

A person needs a systemic mindset to accomplish this objective due to the holistic assumptions (i.e., theological, professional, and social) have reciprocal influence on the students' total development. The authors use a working narrative or rubric termed the *ORCA Stance* as a way of articulating their dual goal. It is an acronym based on the components of openness, respect, curiosity, and accountability. The components represent key qualities of both the professional training and Christian commitments the program wants to express. Its brand appeals to all constituents including the university, department, faculty, and students. As a result, mutual commitment to this framework is the starting point for training and pedagogical choices.

Overall, the authors believe professional programs based within Christian institutions would benefit from first developing intentional language that suits professional competencies and standards as well as faithfulness to their Christian perspectives. Pedagogical methods then reinforce the brand and the narrative or rubric provides a way to assess effectiveness of instruction.

Wolf (2011) also writes on this subject from the realm of counselling programs by giving attention to the difficulties professors face in developing foundational life assumptions that undergird the work of the Christian counselor. She describes the frustrations many feel about the oversimplification and lack of theological coherence that can occur when studying a professional program in a faith-based environment. To illustrate, she quotes Poe who also complained that “just add Jesus and stir” (2004, p. 14) is an utterly inadequate recipe for the development of a Christian mind. These types of programs tend to have a curricula grounded in scientific knowledge and in the writings of established theorists, but integration with matters of faith is too often just added on to lectures. The challenge is understandable given that graduates often

require state or provincial licensure and rely on these programs to meet standards for content and ethics.

Wolf's primary concern is the influence of naturalism in professional studies because this worldview seeks to understand its realm on scientific footings without recourse to spiritual or supernatural explanations. Given these studies are rooted in the philosophical and methodological assumptions of the social sciences, professional programs tend to rely on principles that account for natural phenomena and human behavior as part of the natural world. In sum, Wolf's concern is that teachers overlook theological truths in favor of social scientific understandings of the human condition leaving considerations of God's activity with the natural world neglected.

Therefore, according to Wolf, teachers of professional programs who want to integrate Christian worldview must push students to look beyond presented findings to how the authors arrive at their conclusions to consider what might be absent in the presumptions and methodology. She suggests the use of a heuristic pedagogy in which teachers use methods that guide investigation and enable the students to discover or learn something for themselves. Her examples include: a) providing mental and intuitive triggers so students can ponder how the material relates to a Christian worldview, b) revealing areas in the content that require further study due to unanswered questions about worldview compatibility and then determining how to pursue answers, and c) pushing students into the upper levels of cognitive learning such as synthesis, which requires combining new information with existing knowledge to form original, creative ideas.

A final reminder from Wolf involves the importance of developing caring relationships with students to first "earn the trust needed to address essential issues of spirituality and theology

along with other worldview matters” (2011, p. 336). This emphasis is similar to Noddings’ (2013) ethics of care, which aims to ensure that teachers are completely present with students without favoritism. After all, the teacher’s example as one caring models a crucial part of a Christian worldview worth nurturing in the student.

Instruments for assessment. Three notable methods of assessing the effectiveness of worldview education appear in the literature. First, the PEERS worldview assessment tool (Smithwick, 2004) is mentioned in several resources for this review. The test reflects an individual’s Christian worldview position in five areas, which forms its acronym: politics, economics, education, religion, and social issues. Its primary value is measuring how a person’s worldview translates into action, ranking it according to one of four categories of worldview: biblical theistic, moderate Christian, secular humanist, and socialist.

Second, qualitative feedback from students provides valuable information for assessing pedagogical practice (Danaher, 2009; Jordan et al., 2008). Assessment areas that have the most importance for students include connecting worldview issues to real life, empowerment and preparation for vocational issues, suitable levels of active or participatory learning, and quality of connection with classmates throughout the process.

Third, Morales (2013) uses her dissertation to examine the structure, validity, and reliability of the *Three Dimensional Worldview Survey (3DWS) - Form C* recently developed by Schultz (2013) who observed that postsecondary Christian institutions are limited by the availability of instruments that assess students’ worldviews. Morales discovered that as of 2013, only a few valid and reliable worldview instruments exist, but most of these attempt to measure one or two dimensions of a person’s worldview as either propositional statements and/or behaviors. However, recent worldview literature indicate that a person’s worldview has three

dimensions: propositional statements, behavioral aspects, and heart-orientation (Naugle, 2004; Schultz & Swezey, 2013). Thus, Schultz stepped forward with a new assessment tool.

Overall, Morales lists the following worldview assessments in use by colleges and universities: a) PEERS Test, (Nehemiah Institute, Inc., 2012), b) PEERS II Test II: Christianity and Culture Assessment (Nehemiah Institute, Inc., 2006), c) Creationist Worldview Test (Deckard, 1998), d) Worldview Weekend Test (Howse, n.d), and e) Biblical Life Outlook Scale (Bryant, 2008). Results from Morales' study indicate a three-factor structure is present in Schultz's 47-item instrument and the principal components analysis demonstrates the 3DWS-Form C has good construct validity. Thus, educators appear to have a worthy option for worldview assessment with Schultz's 3DWS instrument.

Gaps in the Literature

Electronic databases such as Academic Search Premier and Education Research Complete as well as web searches using Google Scholar produce a respectable amount of peer-reviewed literature for keyword searches such as Christian worldview, pedagogy, worldview development, and worldview formation. Further investigation into the reference lists led to the discovery of several important books that also address the worldview formation process and teaching insights.

There appears to be far more literature published for the Christian K-12 context on this subject, especially as it relates to values and ethics education. Only emerging qualitative data exist for pedagogical practices in undergraduate higher education and even less for graduate-level students. This is concerning because many of those Christian institutions promote their curriculum and ethos as situated within a Christian worldview. Although D. I. Smith and J. K. A. Smith (2011) make an important and unique contribution, their book is more experimental

and reflective rather than research-based. In addition, the conceptualization of worldview throughout the book weighs heavily on the Reformed tradition approach.

Most of the literature appears in education-related journals with only a few articles published in theological journals and religion journals. Unfortunately, no recurring primary authors, practitioners or theorists appear in the literature on the subject of worldview pedagogy. In fact, some of the most focused work occurs in recent doctoral dissertations. Some authors have yet to publish some potentially helpful studies mentioned in this literature review (e.g., Belcher, 2009; Collier & Dowson, 2008), which is unfortunate considering their forerunning articles are over five years old at the time of this review. The most developed pedagogical approach appears to come from Jordan and his colleagues (2008) with its strategic use of experiential learning, cognitive processing, and group problem solving.

Summary and Conclusion

Several disciplines recognize a worldview as a powerful influence in the learning process. Despite philosophical debates among scholars about the construct's usefulness and shifting logic, educators continue to find teaching for worldview formation valuable. Its role becomes real and personal in the lives of students when they must wrestle with the implications for their values, ethics, and moral dilemmas. Moreover, teaching students how to discern and interact respectfully with each other's perspectives fulfills the notion of worldview as a lived reality rather than focusing solely on what a person believes.

Recent models of pedagogy presented here demonstrate a trend in moving away from the transmissional model that relies heavily on cognitive and theoretical instruction coupled with lecture, individual assignments, and research papers. While this model is considered fitting for some purposes, other areas of worldview formation appear to benefit more from a pedagogy that

involves social interaction, debating ethics and morality, and systems learning. This type of pedagogy would especially suit Christian traditions that conceive worldview more as a way of living in the world.

Perhaps pedagogies that are more transformational can emerge to meet this need.

Teaching of this nature has been addressed well for the adult learning context (e.g., Armstrong & McMahon, 2000, September; Brooks, 2000; Taylor, 2009) and others are beginning to articulate a clear theological vision upon which to base its pedagogical planning (Dunaway, 2005).

Additional cues can come from the literature on transformational leadership. Bass (1985), for example, proposed four components built on the premise that such leadership engages with others and creates a connection that raises the level of motivation and morality in both the leader and the follower. An adaptation of his construct for the pedagogical relationship could include the following:

- *Idealized influence* – the degree to which the teacher behaves in admirable ways and displays worldview convictions that cause students to identify with the teacher as a role model.
- *Inspirational motivation* – the degree to which the teacher articulates a vision of the Christian worldview that is appealing and inspires students with optimism about future goals and meaning for the current situations at hand.
- *Intellectual stimulation* – the degree to which pedagogical approaches challenge worldview assumptions and stimulate creativity in students to develop innovative ways of problem solving.

- *Individualized consideration* – the degree to which the teacher attends to individual students' needs and designs coursework with personally meaningful projects that help students grow. (Lindemann, 2012)

Christian worldview pedagogy of this nature appears to be in the emerging phase. More experimentation and publication of approaches need to emerge that advance this body of knowledge. Considering the significance of worldviews for sound thinking and living, educators in Christian institutions have an opportunity to create powerful pedagogical experiences.

CHAPTER THREE

Research Methodology

Introduction

This study is qualitative research in a grounded theory model using personal interviews with expert teachers in Bible colleges. This approach was suitable because Birks and Mills explain that “grounded theory is the preferred choice when the intent is to generate theory that explains a phenomena of interest to the researcher” (2015, p. 17). The aim of this research was to discover and articulate a theoretical explanation for effective instructional design and pedagogy for Christian worldview formation in college students. Parallel discussions have been conducted in the area of worldview transformation (Hiebert, 2008; Schlitz et al., 2007; Schlitz, Vieten, & Erickson-Freeman, 2011), worldview change (Kennedy & Humphreys, 1994), and attitude change (Koltko-Rivera, 2004). Each held preliminary value for theory development in this dissertation because of their varied and systematic attention to human learning, change, and transformation.

Given that theoretical development for this topic is lacking in the literature and an explanatory theory was the desired outcome, grounded theory was appropriate for this research approach. According to Birks and Mills (2015), three categories of factors influence the quality of a grounded theory study: researcher expertise, methodological congruence, and procedural precision. The following sections clarify the key factors that affected this study according to those categories.

Researcher expertise. As a doctoral student, I used this opportunity to learn grounded theory through the process of producing an actual study in keeping with its design methods. Learning by doing is an experience common to personal and professional life; consequently,

developing anxiety over achieving a perfect research design is unhelpful. Even Glaser (1998) suggests that researchers should stop debating approaches to grounded theory and get on with doing it.

Nevertheless, I do possess experiential knowledge in this subject matter and have done a descriptive, exploratory study for my master's degree, which was published in a peer reviewed journal in abridged form (Lindemann, 2008). I am also using the previous coursework in my doctoral program to contribute to the content of this study, to leverage the skills necessary to produce academic writing, to demonstrate the capacity to search for appropriate resources, and to manage an independent scholarly project.

Methodological congruence. A major credibility concern in grounded theory study is attaining methodological congruence, which occurs when there is harmony between: a) an individual's personal philosophical position; b) the stated aims of the research; and c) the methodological approach the researcher employs to achieve these aims (Birks & Mills, 2015, p. 35). A strong research design follows a paradigm that is congruent with a researcher's beliefs about the nature of reality (Mills, Bonner, & Francis, 2006). This study aligns well with my personal philosophy because it sits within the broader church tradition and professional setting I belong to and serve. This context informs my belief in the importance of forming a Christian worldview and the particular advantages to doing so in the Bible college environment. In addition, given that I am a doctoral student studying credible principles of educational leadership, social science research, and procedures of scholarly inquiry, this study also fits within an understanding and approach of the integration of faith and learning that I personally hold.

The research questions show clear accordance with my personal philosophy and the intentions of a grounded theory approach. In addition, the interview instrument and other data

obtained through triangulated sources (i.e., program objectives, syllabi, and assessments of student learning) will support the credibility of the finding from various angles.

Procedural precision. Because several writers acknowledge that undertaking grounded theory research is iterative and evolving, identifying from the outset where the data and analytical developments will lead the researchers is contrary to its nature (Clarke, 2005; Morse, 2009; Urquhart, 2007). However, it is critical to give careful attention and appropriate rigor to the essential methods of grounded theory if researchers desire colleagues to evaluate their work as quality investigation.

There is much debate as to what constitutes a true grounded theory approach as opposed to straightforward descriptive, exploratory research (Charmaz, 2014; Hood, 2010). For this study I followed Birks and Mills' essential grounded theory methods (2015, p. 13, Figure 1.2) to avoid the appearance of a selective approach, which Hood (2010) notes as a characteristic of diluting the tenets of grounded theory. Nevertheless, despite adherence to established grounded theory methodology, the data analysis and subsequent theoretical formation are rather unique to the individual researcher because their cognitive style is different from that of other researchers. In addition, the outcome of a grounded theory study is not meant to represent the final word on this topic, but simply a theory "that aids understanding and action in the area under investigation" (Heath & Cowley, 2004, p. 149).

The remaining portions of this chapter will explain the details of the setting, sampling strategy, research design and data collection, as well as procedures for analyzing the data. The chapter will conclude with a description of my role as the researcher, the key ethical issues involved, and the potential contribution of this study to theory, practice, and educational policy.

Setting and Context

This study is situated within Christian higher education, particularly institutions that are accredited with ABHE in Canada and the United States. These institutions find their roots in the late nineteenth century movement that drove church leaders to form evangelical Bible schools for the purpose of training missionaries and local church ministers. Historians refer to this initiative as the Bible institute movement.

Efforts to introduce standardization and quality assurance through accreditation grew this into the Bible College movement. Hiebert (2005) describes the enduring purpose of these institutions as providing character and spiritual development as well as ministry competence in an environment of academic formation. He believes this holistic approach to human development fills a gap seemingly abandoned by the research universities in the past generation or two. Currently, there are more than 1200 Bible schools and colleges in the United States and Canada, of which almost 200 are either accredited by or affiliated with ABHE.

Church traditions and their affiliated colleges communicate a worldview through a variety of media. Language, speech, and symbols play a predominant role in communicating culture and the worldviews that shape it. People in communities that share strong values also develop informal ways to use gestures, glances, slight changes in tone of voice, and other auxiliary communication devices to alter or emphasize certain messages (Howell & Paris, 2011). A worldview emerges from intentional instruction, cultural tools of communication, and the activities individuals engage in (Krakowski, 2008). An institution teaches its worldview with intentionality, enculturates it through community life, reinforces it through human interaction, and passes it on through symbols and stories.

de Oliveria (2006) points out some serious concerns of failing to communicate Christian worldview with depth and clarity. These include a) losing members due to emphasizing superficial beliefs and behaviors, b) opening up the growth of syncretistic attitudes because deeper worldview beliefs and transformation are not explored, and c) miscommunicating the biblical message by failing to understand cross-cultural contexts.

A review of the websites of select ABHE accredited Bible colleges reveals two main emphases that appear for worldview formation in connection to their mission: a) clarifying the church/theological tradition of the school and b) equipping students for the cultural situation they will enter after college. For example, Summit Pacific College (“Summit Pacific College - About,” 2015) prepares students to interact with differing worldviews while remaining committed to a Christian belief system. In fact, they immediately connect this purpose to their general studies program (i.e., traditional liberal arts subjects) and further university studies or a productive Christian life.

Grace Bible College (“Grace Bible College - President's Letter,” 2013) brings out the importance of values well by stating their purpose is to prepare students for future choices “with God’s values and purposes in view.” The president supports this further, stating, “There is no value-free education, it is all taught from a particular worldview.” The president does bring an assumption of hurt in the broader culture though, claiming the Christian worldview is the only one “which has the solution to ease the pain we see around us.”

Boise Bible College (“Boise Bible College - Doctrinal Position,” 2014) exemplifies the typical commitment to Scripture observed across all websites. They stress the educational and spiritual values of the Bible as God’s Word, stating: “The faculty, staff, and administration

believe that what we read in God's Word is precisely what God meant to say, and that we are all called to holy living and submission to Him and His Word.”

Each school gives attention to traditional liberal arts subjects integrated with Christian worldview. Moreover, some schools offer cooperative programs with local community colleges thus combining biblical study with professional marketplace programs. As a result, the importance of faith and learning integration is predominant in these program descriptions. Almost all colleges feature capstone courses designed to help upper year students transition from the classroom to professional careers or further studies. These tend to be interactive seminars designed to help students reflect on their college and internship experiences but also learn from the experiences of other students as they have had their worldview shaped by their studies and professors.

Participants and Sampling Strategy

The unit of analysis are active professors identified by a subcategory of purposive sampling known as expert sampling. This is suitable because this study is exploratory, qualitative research seeking to glean knowledge from a target population with a particular capability. An expert is defined as a person “having, involving, or displaying special skill or knowledge derived from training or experience” (Merriam-Webster, “Expert,” 2003). Hattie’s research suggests that expert teachers differ from merely experienced teachers in the way they “represent their classrooms, the degree of challenges that they present to students, and most critically, in the depth of processing that their students attain” (2003, p. 15).

Therefore, the term “expert” is appropriate for use in this dissertation because it makes explicit the unpublished knowledge, wisdom, and practices of nominated teachers. As a result, this research is a form of eliciting and analyzing expert judgment (Meyer & Booker, 2001).

Bain's similar work in *What the Best College Teachers Do* (2004) serves as an inspiration for this application to the Christian higher education context.

A theologically diverse selection of ABHE member colleges were solicited to participate in this study. I pursued nominations from presidents and deans for teachers who fulfilled the following descriptors of an expert in worldview pedagogy based on observations in the literature review:

- Style of teaching results in increased worldview awareness in students;
- Skilled at integrating Christian worldview into their subject matter;
- Effective at creating a learning environment in which students can explore worldview related issues;
- Well-read and knowledgeable in the integration of worldview and higher learning.

Participants who fit this sample profile were randomly selected for personal interviews. However, I reserved the right to select certain participants only to ensure diversity of theological traditions. The interviews occurred live through a Skype or Facetime video chat connection, which provided a familiar and relaxed atmosphere for the participant. Each interview lasted approximately 60 minutes and was transcribed later from the audio recordings. The interviews were semi-structured so that participants had some direction but were also given the opportunity to develop their line of thought. The questions were open-ended with a focus on drawing out these teachers' perceptions of their expertise, how they developed it, and ways they currently express it. In addition, I also asked questions to assess each teacher's definition of worldview. The questions followed a funnel sequence starting with more general questions, then probing when appropriate, concluding with closing questions to ensure clarification or commitment. Final comments served as a check for understanding.

Research Design, Data Collection and Analytical Procedures

Grounded theory was necessary for this study because this approach attempts to build new theoretical explanations for effective worldview pedagogy in Christian higher education. Creswell explains that a theory is an explanation or understanding of something that is a “drawing together, in grounded theory, of theoretical categories that are arrayed to show how the theory works” (2013, p. 85). While the methodology originated in sociology with Glaser and Strauss (1967), it has since been applied to several disciplines with researchers adopting and adapting the methodologies to fit their own disciplinary knowledge group. Birks and Mills (2015) categorize the development of this approach into two generations. The first centers on Glaser and Strauss’ work with their students at the University of California, San Francisco (UCSF) School of Nursing. They provided a challenging and supportive environment that eventually birthed the second generation of grounded theorists from among their students, some of whom produced interpretive work on Glaser and Strauss’ methodology while others, such as Bowers and Schatzman (2009), Charmaz (2014), and Clarke (2005), launched out to offer their own iterations.

One of the most popular grounded theory researchers to emerge recently is Brené Brown whose research on shame, courage, worth, and vulnerability (2006, 2012) showcases this approach as a way to explain social processes and identify what is discovered in compelling terms that resonate with the people reading it. She explains, “Basically, with the type of research I do, I’m a story-catcher. I listen to people’s stories and then subject those stories to a rigorous methodology of making sense of them” (Lieberman, 2012). For Brown, stories are data with a soul. Many laypeople, counsellors, clients, and therapists worldwide testify to the credibility of her writings and workshops.

Overall, the grounded theory method has different nuances so it is important for the novice researcher to specify their approach. This study was done in a constructivist method, which Mills et al., (2006) observe initially in the work of Strauss and Corbin (1994; 1998) and later refined by Charmaz (2000). The defining attribute of this method is in acknowledging the researcher's interpretive influence upon the participants' stories in constructing the theory. Constructivist methods reject the assumption that reliable theory only emerges from a neutral, objective external reality in which the researcher's position is quite separate from participants in data collection and analysis (Martin & Gynnild, 2011). In other words, while the researcher is "developing a conceptual analysis of participants' stories there is still a sense of their presence in the final text" (Mills et al., 2006, p. 7).

The analysis of data in this project used inductive reasoning because the research design intends to create general theoretical statements based on the participant's feedback. The process of abstraction was more open-ended and exploratory during the beginning stages of data collection and coding. An inductive approach was used because it provided a way to organize the data in increasingly abstract units of information (Creswell, 2013). The final theoretical framework follows suit with most inductive studies that report a model with three to eight main themes or categories in the findings (Thomas, 2006). The following purposes that lie behind the general inductive approach are similar to the grounded theory approach and resemble other qualitative data analysis methods:

1. To condense extensive and varied raw text data into a brief, summary format.
2. To establish clear links between the research objectives and the summary findings derived from the raw data and to ensure these links are both transparent (able to be demonstrated to others) and defensible (justifiable given the objectives of the research).

3. To develop of model or theory about the underlying structure of experiences or processes which are evident in the text (raw data). (Thomas, 2006, p. 238)

I used procedures for inductive analysis of qualitative data from Thomas (2006, p. 242, Table 2) below, which he adapted from the work of Creswell (2002, p. 266):

1. Initial read through text data = many pages of text.
2. Identify specific segments of information = many segments of text.
3. Label the segments of information to create categories = 30-40 categories.
4. Reduce overlap and redundancy among the categories = 15-20 categories.
5. Create a model incorporating most important categories = 3-8 categories.

The advantage of this approach was using systematic and rigorous data collection as well as obtaining rich data from the experience and knowledge of these expert teachers. However, it was a time consuming and comprehensive process. In addition, this research was limited to the conceptualizing and experiences of the participants, therefore the results cannot be used to make broad generalizations about Bible college educators. Nevertheless, the insights gained do have transferrable value. Finally, as a researcher and a fellow educator, I took care to minimize inserting bias through both transparent field notes and a disciplined coding process.

A constant comparative method was used during the personal interviews to analyze the data for increasing levels of abstraction. Similarly, using the responsive interviewing model (Rubin & Rubin, 2011) allowed me to start with a first analysis of interviews before continuing so I could adjust my questioning. I also kept field notes to record details of the settings, the time of the school year the interview took place, a general description of the participants, and the overall dynamics of the interview including its length. Memoing was recorded in the field notes to log emerging patterns of professional practice, factors influencing concepts of worldview in

students, and assessment practices. I used these to record my initial thoughts and explanations on these observations. Because a grounded theory approach has no outliers, any data that did not fit the emerging pattern required me to change the theoretical concepts to fit everything in the model.

In keeping with standard practice, the data were separated, sorted, and synthesized through qualitative coding. Charmaz points out that coding means “that we attach labels to segments of data that depict what each segment is about. Coding distills data, sorts them, and gives us a handle for making comparisons with other segments of data” (2014, p. 3). The sequence of coding was based on the interview transcripts and began with initial coding, which were the simple verbatim responses from the participants as they described their experiences and approaches. The second stage of coding, commonly called focus coding, grouped common wording from the statements to uncover early themes that were explored further. The final stage, called theoretical coding, is where distinct patterns, unifying or repeating ideas, sensitizing concepts, and themes begin to emerge from the data in keeping with a grounded theory approach (Bowen, 2006). Ryan and Bernard describe themes as “abstract, often fuzzy, constructs which investigators identify before, during, and after data collection” (2003, p. 85). Overall, I followed two propositions widely accepted by grounded theory researchers: a) everything is data, and b) trust and emergence (Brown, 2006; Charmaz, 2014). In other words, if the researcher is diligent in coding the data and listening to participants, the theory will emerge from the data.

Given that this research involved the influence of different theological traditions, I paid particular attention to indigenous categories such as denominational distinctives and shared language. In addition to constant comparison procedures, I wrote with detailed and thick description, used member checking for validating the accuracy of the findings (Creswell, 2013),

and triangulated the data by examining program objectives, syllabi from the participants courses, instructional notes, PowerPoint slides, and some student assessment data that relates to worldview.

Researchers must be aware of obstacles that can affect the trustworthiness of their findings because these affect the subsequent discussion and theoretical conclusions. Such obstacles include insufficient preparation for the interviews and data collection, too much flexibility that can make conceptualization difficult, not accounting for problems with data gathering and analysis, and researcher bias or lack of skills in reporting (Poggenpoel & Myburgh, 2005). Precautions for each of these potential obstacles were tracked in my field journal and any concerned were reported to my dissertation chair for counsel.

After conducting an analysis of the data, I used that information to write a detailed description of the findings and proposed a theoretical framework for addressing my research questions. I then created a visual model to help others understand the theory and processes. The final chapter elaborates on conclusions that speak to my research questions, reveals any issues I did not anticipate, comments on any perceived limitations of the study, and contains my recommendations for further research.

Role of the Researcher

I am a graduate student completing this research for meeting the requirements of the Doctor of Education degree from George Fox University. I am also an academic dean at an accredited Bible college, thus I participate in teaching and administrative work geared toward Christian worldview formation. As a result, I have an academic interest in this topic as well as a professional interest because I am a teacher and a dean who facilitates faculty development

workshops for my college. Therefore, it is my hope that this study will bring benefits to my own teaching and to the teaching of my colleagues.

Bracketing

Suspending judgement was especially important during the interview and coding process. Bracketing involves the researcher intentionally setting aside his or her own insights as well as what is already known about the subject prior to and throughout the investigation (D. R. Carpenter, 2007). Bracketing strategies are also a means of demonstrating the validity of the data collection and analysis process (Ahern, 1999).

As a fellow Bible college teacher and administrator, as well as a doctoral student in an education program, I anticipated temptation to share insights with the faculty I interviewed. Therefore, I applied several bracketing strategies to this study. The first was to acknowledge the relevant items from my background and preconceptions to this topic. Because I have served in Christian ministry for over 20 years as a pastor and educator in the Pentecostal tradition, this background will color my interpretation of what I hear from the interviewees. In addition, my role as an administrator in Christian higher education can bias my interpretation of the data because I do coach and assist faculty in course design and teaching strategies. Therefore, I used constant comparative methods to ensure fit and that conclusions were grounded solely in the data obtained through interviews with the participants.

I have also been influenced by the literature review on this topic and have published an article that reviews the literature on the topic of worldview pedagogy (Lindemann, 2012). As a result, I did not mention these biases and experiences in order to be as receptive as possible to how the participants described their views and practices. During the interview and coding, my

sole focus was on the interviewees and learning from their expertise. Any follow-up questions or probes were limited and pertinent to strategies or concepts shared by the participant.

Research Ethics

I have taken measures throughout this study to ensure the professional, personal, and emotional safety of all participants according to the guidelines for safeguarding human participants set out by George Fox University. Following Institutional Review Board (IRB) approval, I sent an email with a letter of consent to the presidents and deans of select colleges explaining the nature of this study and requesting nominations for participants who fit the sample profile. Upon receiving nominations, I emailed potential participants with a letter of consent explaining the purpose, process, and anticipated benefits of this study. I collected signed consent forms from both nominators and participants.

Once the participants agreed, I arranged a scheduled time for personal interviews as well as the means for conducting them (e.g., face to face, Skype, or Facetime). The names of all participants were kept confidential and any identifying information was kept off the audio recordings. I gave each participant a signed guarantee to destroy the recordings after three years. Likewise, the transcripts do not contain any identifying information and I used only initials in chapters four and five of this study. My field journal and field notes were kept on my personal computer and backed up to a cloud-based service and separate hard drive – all password protected. The audio recordings were transferred to my field notes and deleted immediately from the recording device.

Potential Contribution of the Research

This study has the potential for creating a helpful theoretical framework for professional educators in Bible colleges who seek greater pedagogical effectiveness in shaping their students'

Christian worldview. Because the formation of a Christian worldview is a common goal of these institutions, a theory for effective pedagogy grounded in proven expertise would be valuable.

This research can also facilitate the sharing of wisdom and knowledge from experts in the field who seek to form Christian worldview in their students. This includes understanding more about the worldview formation process, what to expect of students, how to treat them, and how to assess their progress. The outcomes could be similar to those of Bain (2004) who concludes that the quality of teaching is not measured by just exam results, but by how students retain the material to the degree that it influences their thoughts, values, and actions.

On a more personal note, this dissertation brings improvements to my own teaching and allows me to continue the contribution to the literature I published on this subject in 2012. I anticipate sharing the results with the Educational Standards Committee of the PAOC, the faculty I oversee at Horizon College and Seminary, and the pastors in our constituency through district sponsored events.

CHAPTER FOUR

Findings

Introduction

The purpose of this study was to examine concepts and processes that expert teachers consider when educating for Christian worldview formation. A grounded theory design was used to determine a model for effective worldview pedagogy based on the data. This method of qualitative research allows for use of a constructivist method in forming the theory from data I obtained using personal interviews with six participants who were nominated by their presidents or deans based on my criteria of a suitable candidate. These nominations allowed me to interact with faculty that others deemed especially competent in this form of teaching. As a result, the credibility of the data is strengthened beyond my own opinions of competency. The analyses of the interview data helped me explore the following research questions:

1. What instructional designs and pedagogical methods are especially effective for raising worldview awareness and shaping Christian worldview development?
2. How does the worldview of the teacher and his or her relationships with students influence pedagogical effectiveness?
3. How are teachers assessing college students for worldview awareness and development?

An introduction to the participants. The interviews were held between September 28, 2015 and December 14, 2015. Three participants were from the United States and three from Canada; each are faculty in ABHE accredited colleges. All nominated participants were males ranging from early 30's to early 60's in age and each had experience teaching in church-related ministry prior to moving into higher education. Table 1 summarizes more specific information with names rendered as initials to maintain confidentiality:

Table 1

Summary of Data on Interview Participants

Participants	Location	Degree	Role	Teaching Area	Teaching Experience
DW	Western Canada	MA	Administrative Faculty	Christianity and Culture	4 years
JK	Western Canada	PhD	Faculty	Biblical Theology	7 years
RS	Eastern U.S.	PhD	Administrative Faculty	Philosophy	23 years
WH	Western Canada	EdD	Administrative Faculty	Intercultural Studies	18 years
BB	Eastern U.S.	MA	Administrative Faculty	History	4 years
DH	Western U.S.	MA	Faculty	Intercultural Studies	9 years

All interviews were conducted via video chat using Skype or FaceTime with the exception of one, which had to be conducted via speaker phone after our internet connection proved too unstable. The interviews began with some informal conversation to start and a preamble on research ethics. Rapport was able to be established through the video chat method, which allowed for conversational dynamics to form and even responsive humor to be expressed. Each interview was kept to the time limit of 60 minutes with five participants speaking from their work office while another participated at home. All participants expressed enjoyment in talking about the subject matter although each had differing backgrounds and responses to the overall concept of worldview.

Backgrounds and responses to the concept of worldview. This section is important to include because it illustrates why these participants demonstrate expertise in the eyes of their nominating president or dean. The opening question of the interview allowed me to explore their affective and intellectual responses to the worldview concept as well as life and educational backgrounds that contributed to their current thinking on this issue.

Both DH and BB grew up as missionary kids so they learned about worldviews as a way of understanding differences quite early in life. In fact, BB admitted that he used the term often before fully understanding it. DH has also since adopted two children (one from Bulgaria and the other from Africa) in addition to having two of his own biological children. He stated that the processes involved in adoption and then interacting with the children required a great deal of cultural competence. WH served as a missionary for 15 years, so he experienced firsthand the challenges of cross-cultural communication. He realized this had deep connections to the worldviews held by each party and proved to be a significant challenge in his missionary career. Since that time, he has focused on teaching in these areas of Christian higher education.

DW was in pastoral ministry for eight years before moving into higher education. He links worldview to important matters of discipleship, identity formation, and participation because a crucial aspect of mutuality is at play. He explained further that worldview is both something we shape and are shaped by – much like our relationship with culture. Likewise, Christians are participants with God in this world at the same time he is influencing, shaping, and directing us. So to the extent that a Christian is aware this is happening, he/she becomes better equipped to live a life that's meaningful, has clarity, and proceeds in a healthy direction

An initial theme emerged when I discovered that WF, DW, RS, and JK did not study worldview as a distinct subject, but instead learned about it indirectly within more prominent interdisciplinary subjects such as history, cultural, and philosophical studies. As a result, worldview formation comes as a *secondary benefit* within the study of complementary subjects. JK mentioned that in his preparation for our interview he realized the term worldview is not used that often by anyone at his school, including himself. He was unsure why this is the case. In fact, as a result of participating in this research he acknowledged that worldview is an extremely

important part of his biblical teaching and a positive aspect of his personal life. This confirms many parts of the literature that describe worldview as often unconsciously held beliefs and values.

However, it is at this point where a couple of the participants did mention they held some negative opinions toward the worldview concept. DW actually dislikes the study of worldview as a distinct subject because it is often treated as something programmable. For example, there is an implicit understanding that Christian educators are expected to instill in students the “correct worldview” as a result of taking a certain course or program. But, as DW insists, this is an outcome we have little control over. He believes worldview formation has a lot to do with the posture of the teacher and the institution toward learning and students’ expression of worldview. Therefore, worldview formation throughout the whole of student experience is much more attractive to him than worldview indoctrination via distinct courses. He maintains this as a more open-handed posture rather than a closed-fisted, tightly controlled approach that insists on conformity to some established standard.

RS also admitted to disliking the expression worldview due to what he sees as its connections to relativism. Given that his background is from the reformed tradition, this attitude corresponds with the historical literature reviewed for this study (Naugle, 2002). RS believes the challenge in our day is whether or not students believe there is such a thing as objective truth. He insists the terminology of worldview is inherently flawed because it supports the relativism so prevalent in society, whereby people would just default to, “Well you have your worldview and I have my worldview.” As a result, he argues the worldview concept does not help with a person whose presuppositions assume there is no such thing as objective truth that holds all of us accountable. For RS, shaking students loose from relativism is the greater challenge.

Participants named the following areas they see as closely related to worldview development: identify formation, holistic life and holiness, learning to place our lives into the narrative of God's purposes in the world, exploring the classic questions of philosophy and the basic questions of truth, epistemological debates involving relativism vs. absolute truth, learning to judge history through the lens of their worldview, and the ability to converse more effectively with the larger culture yet still be effective witnesses of the Christian worldview. In addition, the participants identified several items they value about the worldview concept. For example, worldview development has close connections with growing in Christian maturity, taking ownership of one's beliefs, the development of critical thinking, and the necessity of learning better conversational skills with diverse people groups holding divergent perspectives. A few important benefits mentioned by all interviewees include the development of better social consciousness, earning credibility with others, practicing empathy, having greater relevance to our world, and setting a healthy trajectory for future decision-making.

Each participant cited important books and authors that helped them become more educated on this subject. The following is an annotated list of both formational texts and current readings mentioned:

- Bloom, A. (1987). *The closing of the American mind*. Simon & Schuster. RS mentioned this book as one of the first to declare that students would soon enter college holding as axiomatic (i.e., self-evident or unquestionable) that there is no such thing as absolute truth.
- Colson, C. & Pearcey, N. (1999). *How now shall we live?* Tyndale House Publishers, Inc.; Schaeffer, F. (1985). *The complete works of Francis A. Schaeffer: A Christian*

worldview. WH mentioned these as key formational texts on his understanding of the Christian worldview concept.

- Downing, D. E. D. & Porter, S. E. (Eds). (2009). *Christian worldview and the academic disciplines*. [McMaster Divinity Press]. PickWick Publications. WH recommends this to students doing classroom presentation on worldview related to academic topics.
- Georges, J. (2014). *The 3D gospel: Ministry in guilt, shame, and fear cultures*. Timē Press. DH uses this as a textbook because it explains the world's three primary culture types and how Christians can minister effectively across worldviews and cultures.
- Goheen, M. & Bartholemew, C. (2008). *Living at the crossroads: An introduction to Christian worldview*. Baker Academic. WH is using this as a college textbook because it provides a good analysis of how Christians live in the tension between biblical and cultural stories.
- Hoffercker, W. A. (Ed.). (2007). *Revolutions in worldview: Understanding the flow of western thought*. Presbyterian & Reformed Pub Co.; Sire, J. (2004). *Naming the elephant: Worldview as a concept*. Both of these were mentioned by BB as an important complement to Sire's *The Universe Next Door*.
- John Paul II (2000). *Fides et ratio: On the relationship between faith and reason: Encyclical letter of John Paul II*. Pauline Books & Media; Saint Augustine (2008). *The Confessions*. Oxford Paperbacks. RS appreciates these books because he insists the Christian life is a matter of faith seeking understanding. He says when faith is genuine it wants to understand its object.
- McGrath, A. (2007). *Christianity's dangerous idea*. SPCK Publishing. BB mentioned this book a good example of individual's right and responsibility to take ownership of

their faith and worldview. Ownership was another initial theme that emerged from several interview participants because it was an important teaching objective.

- Sire, J. (1997). *The universe next door. A basic worldview catalog*, 4th ed. BB and JK mentioned as a foundational text and first exposure to the worldview concept, especially its exposition of worldviews other than Christian theism.
- Walsh, B. J. & Middleton, J. R. (2009) *The transforming vision*. IVP Academic. JK mentioned this as an important text in his graduate studies that furthered his understanding of the worldview concept.
- Wells, D. (1999). *Losing our virtue: Why the church must recover its moral vision*. RS referred to this book's claim that just 17% of Americans regard sin as an offense against God. Which means that conceivably 83% of the population would be unable to make any sense of Christ's death at all. Therefore, Christian worldview might hold little appeal to a huge amount of people.
- Wells, R. A. (1989). *History through the eyes of faith*. HarperOne. BB uses this book to teach students about studying the same history as any other student would, but also using an addition lens of Christian faith; i.e., looking at it with a spiritual dimension. He maintains that Wells' observations are an excellent example of putting Christian worldview to use in studying history.

Initial and Focused Coding

The research questions were investigated based on coding of the transcribed interviews, comparison of the triangulation data, and my interpretation of the data as a researcher and educator. The participants each had unique concepts and stories to share along with many common approaches, which allowed me to estimate a point of saturation. The interview

instrument (see Appendix A) consisted of six questions, however I removed question #4 after the third interview because it proved to be redundant to the participants. Several elaborating questions were asked to explore their comments further. Altogether, the interview structure followed a typical funnel method with probes, clarification comments, and checks for understanding.

The analysis was completed with an inductive process throughout three stages of coding: initial, focused, and theoretical. During the initial coding stage, I highlighted the transcribed interviews to indicate crucial statements related to the research questions. I then borrowed a practice from social media of using hashtags as a means to both designate keywords and initial themes, which also allowed me group them according to initial themes. The hashtags allowed me to assemble quantitative data using the search feature in my word processor. As a result, I was able to identify recurring keywords and themes. Constant comparative methods were used throughout the interview process by keeping field notes and inserting footnotes in the transcripts to indicate similarities and difference between concepts, factors, and initial themes. Altogether, the full transcripts of all interviews totaled just under 28,000 words.

Focus coding was used to group common wording from the interviews and triangulation data to test for theoretical sensitivities that were explored further in the next stage. The initial portion of this stage produced 93 keywords, which I then searched for statistical tendencies of these within the transcripts. I was able to reduce overlap and redundancy to produce 19 categories of data followed by further coding that determined nine prominent relationships among these keywords, which represent the core categories. Given that the methodology for this project did not rely solely on statistical observances, the constructivist approach to grounded theory required me to observe all data like a story-catcher; exploring and interpreting the

experiences of the participants where no a priori theories currently exist so new possibilities could emerge and be communicated with soul and vitality (Birks & Mills, 2015)

The remainder of this chapter presents the findings of the interview questions followed by a discussion of the emergent themes discovered through theoretical coding. The chapter concludes with a summary of items that appear consistent with the literature as well as surprises in the findings. Further discussion on the themes and the proposed theory/model for worldview pedagogy are addressed in chapter five.

Analysis of the Data

Key pedagogical factors to consider. The participants addressed three main areas here: a) issues to clarify in themselves, b) inherent factors to accept in students, and c) cultural and belief factors to confront. A basic issue teachers had to clarify was whether or not worldview development is the primary or secondary benefit of the subject matter they were teaching. Only two of the six participants directly address worldview as a subject within their courses; the others provide secondary attention through other subjects. This revealed important assumptions about the nature of worldview formation; namely, that it takes place implicitly within the context of other pursuits. This paralleled the emphasis on discipleship formation in each school's statements of mission. In other words, it is assumed the entire college experience exists within and contributes to forming a Christian worldview in students. This likely accounts for why assessment of worldview was weak in each institution given the priority of other specific learning outcomes.

Another important factor within teachers arose with respect to clarifying their role and specific passion as educators. For example, DW mentioned that his mindset is based on the pastoral perspective he brings to the college context. He explains, saying:

If I were to describe the goal or vision of my teaching, it is pastoral teaching. I have always felt I had one foot in the church and one foot in the academy. I still have not discerned which one except to discern that it's neither; it's not a choice. It is a value and benefit to be able to do this, especially in a Christian institution where in some ways I get to exhibit my pastoral interest, gifts, and strengths while and at the same time push into the academic side. So I do not feel like I have to choose. I do not feel like it was a change in profession to come teach here. The change in context helped me engage this question of worldview and personal formation. (DW, interview, December 14, 2015)

Interestingly, two other participants stated they did not feel their role was to be an advocate for their denomination's distinctive interpretations of Scripture or core doctrines. While they were certainly adherents to those positions, they felt it was too confining to always make an apologetic for a certain tradition's perspective. Instead, they were driven to contend for the development of critical thinking and greater ownership of faith and worldview through teaching students to come to their own conclusions through learning appropriate methods/skills in critical thinking and hermeneutics.

Several inherent factors within students also arose, which participants learned to accept as limitations to worldview formation. Chief among these are the bounds of personal maturity and cognitive development. Together with general cognitive abilities, these represent the overall readiness and values in students that move the learning process forward. JK, in particular, contrasted the abilities of 18-22 year olds versus mature students in understanding and applying course material. He observed that life experience and intrinsic motivation increase the depth of processing necessary for worldview formation. In addition, the cultural and media distractions in

younger students tend to take priority over the career-planning and homemaking concerns of their older classmates.

Students also bring limitations to the level of relationship they want to develop with their teachers. WH sees this especially in the informal parts of the college experience. For example, only certain students will follow up with him outside of class with conversations, discussions, or questions. These do prove vital to their development but teachers are limited by a student's willingness to engage or make the effort to reach out and talk.

Another important factor to consider is that some students simply do not fully engage in their faith and are vulnerable to falling away from Christian belief. This relates well to DW's caution about viewing worldview as an idea or concept educators think they have control over. He states one of the main challenges here is the degree to which teachers want to control the shape of beliefs or worldviews can sometimes dictate how we teach, which may or may not be that inviting to students. An overly controlling or haughty approach from the teacher often results in negative learning outcomes for students. DW explains there is a huge diversity of expectations among students as to what the church's role is in being communicators of the gospel. This reflects what Kanitz (2005) says about the absence of universal criteria on what constitutes a Christian worldview. A visual image DW uses to describe the comparative postures from faculty is open hands or closed fists. Not only are these an individual posture with the teacher, but it is also an institutional posture toward students that which is deemed valuable concerning education and worldview formation.

Finally, there are important factors concerning the influence of contemporary culture and belief patterns in society. These are factors teachers often confront as they seek to influence Christian worldview. A recurring issue arose from the participants concerning the lack of

seriousness college-aged students have toward sin and holiness. JK argues these concepts are especially important because of their connection to questions dealt with in all worldviews, especially the source of problems in our world (Sire, 2009; Walsh & Middleton, 1984). RS finds that some students do not consider the idea that God forgives sin as a significant matter. He explains they have a flawed ethical position that holds God should forgive sin because people deserve forgiveness. This reflects a de facto creed observed in American teenagers described by sociologists Smith and Denton (2005) as *moralistic therapeutic deism*. The authors found American teenagers to be extremely inarticulate about their religious beliefs, with most unable to offer any serious theological understanding of their views. This also mirrors another factor repeated by participants concerning a general ignorance of the nature and origins of the Bible as well as the inability to engage it with skills in critical reading. RS especially laments the lack of realization among students concerning the cost to atone for sin. WH claims the widespread media culture among teenagers and young adults distracts them from spending enough time to wrestle with worldview-related issues and reading the types of literature that can challenge their assumptions.

BB also mentions a related concern that also arose in Schlitz's (2007) work: the attraction to continual searching for truth without making a commitment. BB describes a recent student with this tendency:

I would say he has made the search for truth the end goal. He enjoys asking all the questions but he is not going to be convinced by any of the answers from any perspective. He just enjoys the search. Well I like to search for truth as well, but I tell my students that the search for truth has to lead you to the truth. You actually have to draw a conclusion. (BB, interview, October 14, 2015)

Additional factors related here include the lack of secondary-level education in morality or ethics for students who have come from a public education background. RS explained that public institutions cannot offer such education because it would imply state sanction for the positions of a particular religion or philosophy. To do so, he says, would create a conflict with American ideas of separation of church and state as interpreted by the Supreme Court. He suspects that even teaching about Aristotle's views on character might not be admissible under these interpretations.

Learning objectives related to worldview. Analysis of the interview and triangulation data revealed five main areas of objectives for worldview development in college students: a) articulation of their beliefs, b) development of critical thinking, c) nurturing a stronger sense of Christian identity, d) respectful interactions with those of differing perspectives, and e) analyzing the nature of truth. Four of the participants mentioned the ability to articulate a personal worldview is critical to college-level education. WH's school recently adopted new student learning objectives, one of which states that students will develop and deepen their Christian worldview. This change follows ABHE's new standards that elevated the language and the requirements to show assessment data indicating how students are acquiring and applying a biblical worldview. It was during the college's most recent reaffirmation of accreditation when all of their faculty became aware of its importance. WH admits the school mostly assumed worldview development was happening so they did not verbalize the components a great deal. Since then, the school now tracks syllabi for the attention to worldview issues, how it is presented, and how it is assessed. BB also gives worldview articulation a high priority in his history courses. He is motivated to teach students the language, terminology, and philosophy-related issues so they can effectively describe their worldview as well as that of others – both

past and present. What drives his teaching is equipping students to be more relevant to those they encounter throughout life. Overall, the assignments and PowerPoint files reviewed in the triangulation data revealed several uses of reflection papers, class discussions, and conversation partner strategies to help students learn to articulate the essence of their Christian worldview.

Training critical thinking capacities appeared in all interviews and the triangulation data in varying degrees. RS supplied this helpful metaphor to describe his learning objective: To train their ears to hear. He wants students to become sensitive to poor and fallacious reasoning because if they cannot spot these they will not know how to respond with a more rationale argument. The life of the mind is quite important to RS. He explains:

Christian life is a matter of faith seeking understanding. Jesus tells us to love God heart, soul, and mind. So if mind is not included then I think we are falling short. It seems to be when faith is genuine it wants to understand its object. I like John Paul II's example of the church – it's more beautiful the way he says it – that we rise on two wings. Wings of faith and reason. I do not think it is right to equate them but still reason has a place.

(RS, interview, November 4, 2015)

It was clear from these interviews that fideism would fall well short of the expectations for college graduates. In fact, DW's school recently started using an assessment tool called the Watson-Glaser™ Critical Thinking Appraisal to bring greater attention to the cognitive abilities relevant to this objective. The instrument is based on three keys to critical thinking, summed up as the RED model:

- *Recognize assumptions:* Separate fact from opinion.
- *Evaluate arguments:* Impartially evaluate arguments and suspend judgment.
- *Draw conclusions:* Decide your course of action.

The tool is integrated into a course on ethical reasoning but it is also part of the larger institutional assessment tracked for accreditation requirements.

Another set of objectives involve developing a stronger sense of identity. Two of the participants regularly address students' separation between beliefs and behaviors. JK referred to this as compartmentalization, which he believes is quite common. He said, "It is important that students understand that God actually wants to have access to every area of our lives. Being set apart to God is an integral part of our worldview" (JK, interview, November 11, 2015).

A consistent objective arose concerning the desire to increase students' ownership of their faith and worldview. The participants confirmed that in order to develop a Christian worldview, students have to ground it first of all in Scripture – especially the predominant themes of the Bible, even if the course is designated as a professional or general studies area. In doing so, students must be given the tools for continued reliance upon Scripture as a reference point in their lives. This is in keeping with data from three of the participants emphasized that students must learn to take responsibility for intentional faith and worldview development because they will not always have an authority figure, like a professor, around to rely on for easy access or accountability. DW describes his goal here as setting students on a sustainable trajectory to engage their worldview and fundamental beliefs. The terminology of "trajectory" recognizes that teachers can do a lot for students in a course or academic program but they cannot do it all. Therefore, worldview pedagogy involves mapping out a path everyone feels is helpful and allows them to move forward as life-long learners, primarily where Christian faith engages complex questions and social issues that challenge worldview clarity. This trajectory image is valuable for theory-building because it represents well the process and evolving nature of worldview formation. DW referred again to the "open hands" image here to emphasize that

any attempts to control the worldview, like a prescribed outcome or result, is unhelpful because this development is more of a slow process in a good direction.

Admittedly, this is a difficult objective to assess because it involves the somewhat intangible task of evaluating a person's sense of identity. DW relies on paying attention to where students are able to make connections and integrate things they are experiencing into a more coherent worldview. The primary limitation here depends on how long the student chooses to spend in college for growth to be observed and assessed.

Another consistent objective to come out of the data was educating students on interacting with those of differing perspectives and worldviews. BB offered a compelling case by arguing that if his students cannot put themselves in the shoes of historical figures, then how could they understand history and show empathy for the past and present. For him, equipping students for credibility and relevance has vital implications for Christian witness and social consciousness. Similarly, learning empathy appeared in four of the six interviews, however an examination of the triangulation data did not reveal a consistent emphasis in the syllabi descriptions or assignments.

This objective appeared to be more prominent in classroom dynamics and other active learning. For example, DW points to the importance of posture again to model what he calls an honest clarity and a humble conviction. He uses this as a tagline in his classroom teaching, especially on challenging topics that raise emotions and have potential for conflict. He insists that a worldview does not have to be diluted just because it might lead to conflict. These types of views can be held with humility in ways that foster relationship and invite people to interact. This objective is also observed in the literature, especially by Jordan, Bawden and Bergmann (2008) as well as Schlitz, Vieten, and Miller (2010). The goal is to promote dialogue among

groups who share common social interests and concerns but “differ in epistemological, ontological, and/or axiological aspects of their own particular worldviews” (Jordan et al., 2008, p. 93).

A key learning objective for DH is to prepare students for dialogue among peers and those outside of their particular denominational worldview. He supports the observation from Kanitz (2005) who argues that worldview pedagogy can become more effective by examining not only the shared tenets among the various traditions, but also the nature of denominational and institutional differences as well as cultural currents that are influencing today’s students. DW insists that the manner in which a teacher demonstrates their own worldview engagement in these areas goes a long way to inviting students into social consciousness.

The final learning objective that appeared throughout the interviews involved analyzing the nature of truth. JK acknowledged that part of his teaching involves convincing students that the worldview of the Bible should be our worldview. He agrees with Estep who states:

The Bible is the epistemological center of the Christian faith. Without the Bible theology would become undirected speculation about an elusive God who does not want to be known...As for every aspect of the evangelical tradition, the witness of Scripture is of paramount importance. (2008, p. 44)

Half the participants mentioned the challenge of convincing students to accept the existence of absolute truth and shaking them loose of the cultural trend toward philosophical or ethical relativism as the best approach to morality and spirituality. RS observed that students do have selective acceptance of objective truth, such as with math and science. However, what he tries to show them is the tenets of truth relativism not only undermine religion and philosophy,

they ultimately undermine science as well because it too involves differences in perception and consideration.

The situation can be discouraging, as RS admits, however he suspects that we now have more in common with the challenges faced by the early church in presenting the gospel as relevant to a pluralist culture. BB is not discouraged, instead taking comfort in the idea that Qoheleth would still say there is nothing new under the sun (cf. Ecclesiastes 1:9). Likewise, he thinks Plato, Socrates, and Protagoras would recognize the philosophical positions in our contemporary debates. He recognizes we live with these same types of people right now (i.e., stoics, existentialists, epicureans, etc.) and it is important for students to understand the epistemological big picture given they may have an opportunity to share the gospel with any one of them.

RS explains that the offence to relativists lies in any insistence on the existence of absolute truth implies a person knows it, which is judged as arrogant. But he argues that just as absolute time exists, so also does absolute truth. The problem lies in our abilities to measure it and comprehend it. For example, RS points out that Carbon 14 dating and the atomic clocks used by the naval observatory have a degree of error, even though it is very tiny. Likewise, we do have to accept similar limitations even within a Christian view of absolutes as we seek to comprehend truth.

Instructional designs and pedagogical methods. The data were grouped into two major categories here: a) principles and b) practices. I asked an elaborating question concerning an observation in the literature on taking students through a disruption phase, sometimes called disequilibrium, with their current worldview – i.e., shaking some things up in order to make foundational change possible. Wolterstorff (2002) argues in favor of this phase because it

kindles curiosity or dissatisfaction with the status quo. However, Belcher (2011) points out that disequilibrium can bring tensions to the surface and lead to diverse declarations of worldview. The notion alludes to DW's conviction that worldview development cannot be overly controlled. Belcher (2011) argues that attempts to discourage disequilibrium will cause tensions to go underground and become corrosive to that culture.

DW clarifies this pedagogical principle, calling it the deconstruction-reconstruction aspect of higher education. Yet he acknowledges a political tension with being in a Christian institution that holds to particular beliefs stemming from the denomination that financially supports that college. He realizes there are different types of processes teachers would use at a public university. While there are obligations to teach certain things, the fact that teachers actually do value specific beliefs over others is a demonstration of their confession of faith. DW describes it further:

We realize that even our confessions of faith took years, decades, and in some cases, centuries to be formulated. So there is a value in that process and some of that is uncomfortable. So deconstruction or, as you say, shaking things up is really valuable, in some ways – and even students have described it as someone throwing a puzzle in the air and you have to put the pieces back together...So what we emphasize is that you do not have to put the puzzle back together by yourself. You can invite others to help you put the pieces back together and make sense of the disorientation you experience. So that is where we put an emphasis on community and discipleship with others. It is pretty critical in regards to this deconstruction process. (DW, interview, December 14, 2015)

Other participants admit that deconstruction alone is unhelpful, especially if it is perceived as simply messing with people. This would be one of the ways that teachers can have

a negative influence in worldview pedagogy. In fact, one participant said that even non-Christians would likely say that is not the proper intent of education. However, inviting students to reconstruct together can prevent the isolating effects of disorientation.

WH was the lone participant who did not feel this was an important principle in his pedagogy. Rather than disagreeing with it, his main concern is that it seems to be getting more difficult to convince students of the necessity of forming a strong Christian worldview. He suspects the more they are engrained in our secular environment with its abundance of media and rapidly changing culture, the less they are paying attention to wrestling with issues that can challenge their presuppositions. He estimates that only about one third of college students will reach a place of critical thinking development that allows them to engage worldview issues in significant ways. This underscores previous comments about student readiness being a crucial pedagogical factor.

Another important pedagogical principle includes providing a safe environment for both teachers and students to take risks of exploration. In the case of the former, teachers should choose wisely how to push boundaries and explore the spectrum of beliefs and perspectives on certain topics, especially beyond the denominational dogma. Both DW and DH see this as important to getting inside the question of why somebody would believe something in certain ways. This is crucial for educating the social skills of students so they honor other people's convictions. As for the latter, DW and BB recognized they must be conscious of sensitivities that students carry regarding certain topics and openly acknowledging it may create anxiety or difficulty. That open and empathetic posture has caused some students to express that it invites them to engage despite their struggles.

The participants also shared some important pedagogical practices they felt were especially helpful in worldview formation. These occurred in both the classroom activities and the types of assignments they create. This was also the most helpful area supported by the triangulation data, which consisted of sample syllabi, PowerPoint slides, discussion guides, and sample papers. For example, four of the interviewees mentioned Socratic methods of teaching as critical for this type of pedagogy. RS commented that the classroom is the place to draw things out in students. He said “They will make their proposal and I will dig away at it. I ask “what do you mean by that?” over and over” (RS, interview, November 4, 2015). The technique is designed to promote conversational exploration of the issues and encourage deeper ownership in the students for their beliefs.

DW also insists that it is important to first let students explore their thoughts before turning to the theory and textbooks. He wants students to get beyond the like-dislike evaluative comments and truly dig into why they hold specific values. BB supports this, saying he is not afraid to challenge students or counter their arguments or statements, especially if he thinks it is from a very limited perspective. In addition, several participants mentioned the use of conversation partner times in the classroom, which was also observed in their PowerPoint slides. The topics and instructions were often open-ended to encourage exploration of opinions and learning to listen to one another. It is apparent that these teachers work hard to create a lively classroom environment full of robust discussion, which reflects an approach observed in the literature discussing constructivist techniques (cf. Danaher, 2009; Jordan et al., 2008). These methods were followed up with equally vigorous engagement with established knowledge in the topic (e.g., ethics, biblical theology, history, etc.), which allows students to research, compare,

and reflect on their initial thinking/views. In fact, there were many reflection exercises and assignments observed in the triangulation data.

Both DH and DW use student field trips in their instructional design as a means of guiding cultural engagement. DW is also a program director for a unique program in his college that focuses on urban culture and topics surrounding social justice, the arts, and faith in the marketplace. The field trips in this program appear designed to raise student awareness of worldview issues as they relate to a rapidly changing culture. Thus, an experiential learning approach is essential, although we did not explore the theoretical underpinning of this learning theory as applied to worldview. DH also takes students off campus to visit non-Christian religious sites, such as Buddhist temples, to give students firsthand experiences with diverse beliefs and people groups so they can grow in social consciousness and communication skills. He also highlighted uses of tactile learning where materials are brought into the classroom that students can touch and handle as a means of making connections to more abstract concepts of culture and worldview.

Worldview of the teacher and relationships with students. The literature review demonstrated that the example of the teacher and their relationships with students can redefine the direction and growth of those they instruct. A teacher's ability to model how their own worldview is informed by Scripture and the way they value other's perspectives as they dialogue across differences sets a powerful example.

The participants responded with a variety of perspectives on being an example of what they hope to teach when elaborating on this portion of the interview. For instance, JK hopes that his way of living as one saturated in Scripture demonstrates the benefits of a Christian worldview. He draws inspiration from Spurgeon's description of John Bunyan: "Why, this man

is a living Bible! Prick him anywhere – his blood is Bibline, the very essence of the Bible flows from him. He cannot speak without quoting a text, for his very soul is full of the Word of God” (Spurgeon, 2013, p. 268). However, JK also brings an interesting caution here, which is that he is careful not to over share from his own life or focus too much on himself as an example. He feels this could cross over into being a negative influence on students because they should look to their own their experience to form their worldview and, of course, the person of Jesus Christ as their ultimate exemplar.

DH provided a similar caution in asserting the classroom environment is actually an unnatural place of relationship and can set things up for misunderstandings. He cited examples of negative influence from the teacher such as indoctrinating by not encouraging enough critical thinking and misusing their position of power with students. Therefore, he makes use of times outside of the classroom to serve others, socialize, and solve problems together because it helps mitigate the limitations of relating to each other only in the classroom.

RS also pointed out another important way teachers can be a negative influence: trying to meet unrealistic relational expectations. He explained:

I deny the popular expectation that effectiveness means being everybody’s buddy. I do not think it means that for pastors or teachers either...When it comes to school activities I try to stay in touch with the students, to make them feel welcome but I do not try to be everybody’s buddy. There are other people on the staff that are much more outgoing than I am, but I do not think it has hurt my ability to deal with a student. (RS, interview, November 4, 2015)

These were remarkable insights not observed in the literature on how a teacher can have a negative affect on students in the shaping of their worldview. Further opinions came from three

of the participants who mentioned the value of letting the students' voice be heard in both classroom and one-on-one meetings. Here is where a teacher models the skills of mature conversation and listening as another person relates his or her perspectives. These were cited as important ways teacher influence the social development of students, which is noted as a core capacity for twenty-first century citizenship as it relates to worldview (Jordan et al., 2008; Schlitz et al., 2010). This should not be confused with simply being polite or amicable. WH insisted that his role includes confronting students when their actions, lack of discipline, or poor academic performance warrant the challenge. He knows the way he does these uncomfortable interactions can have an equally important and positive effect on student development as the curriculum.

Assessing worldview development in students. The responses to assessment of worldview focused on four main areas: a) how the requirements of ABHE accreditation have prompted attention to this area, b) an initial focus on assessing small gains in worldview development, c) the various challenges that schools and professors face in assessment, and d) the use of tools within coursework to gather data.

It became clear during the interviews that the participant's schools are still trying to find a solid answer for the newer ABHE requirements of showing assessment data that indicates how students are acquiring and applying a clear Christian worldview in their studies. WH acknowledged that it was during their college's reaffirmation self-study five years ago when all of their faculty became aware of its importance. He does believe the school neglected attention to worldview issues, but they did not explicitly verbalize the components of a worldview as much as they do now. The story is similar in the other participants' colleges. Each acknowledged their weaknesses in this area due to the assumptions inherent to the culture of

Christian higher education; namely, that schools presume because a student's presence indicates they already buy in to the Christian worldview, therefore the progression through the curriculum will meet their needs and questions. As a result, many schools are still trying to strengthen evidence for accreditation requirements here due to the implicit nature of worldview development.

Foremost among the challenges appears to be finding a way to get valid, observable data on such a deep and integrated part of a person's identity. DW admits this is intangible so he pays attention to students' abilities to make connections and assimilate some of the things they are taught with what they are experiencing. This echoes Hiebert who says, "At the core of worldview transformations is the human search for coherence between the world as we see it and the world as we experience it" (2008, p. 315). Each participant also reported they have not yet found a viable assessment tool for worldview development. There is a dissatisfaction with multiple choice inventories because these are less preferable than students being able to articulate their worldview. None of the participants were familiar with the assessment tools discovered in the literature review such as the PEERS Test (Nehemiah Institute, Inc., 2012) or the 3DWS - *Form C* (Schultz, 2013).

Similar to assessing areas like attitude or character, the participants acknowledged there is always a balance between getting helpful feedback and unhelpful feedback. Each institution is experimenting with the best mode of assessing a worldview component for tangible data to examine and distribute for decision-making. For example, at JK's college, the directors of each program hold year-end interviews with students in which one of the questions touches on worldview-related areas and how Bible college has given them a foundation for life and ministry, but that data is not shared widely among faculty for broader awareness. Another common

approach was to use capstone courses for senior students where a review of worldview development takes place. Once more, attention to worldview is just a part of this process and does not yield explicit data the participants were able to send me as triangulation sources.

In general, participants report their colleges are assessing doctrinal, behavioral, and philosophical components of worldview but do not bring them together as clearly as they would like to gain a picture of student worldview development and application. I suspect this is related to the initial theme of secondary benefit mentioned earlier. In fact, all but one of the participants teach in an area where worldview is the secondary focus.

DW's school just started using the Watson-Glaser™ Critical Thinking Appraisal, which requires students to complete an online assessment that returns a summary of results for review and then respond to in a reflection paper. The appraisal allows a student to review any surprises and confirm what they already know about themselves. DW admits that some find it frustrating so they are careful to insist that the appraisal is not about intelligence, which mitigates the risk of students misinterpreting the information.

The practice of assessing by small gains appeared in several of the participant's pedagogy. This occurred primarily through the coursework and informal interactions with students. While acknowledged as somewhat helpful by the participants, it underscores again the longstanding implicit nature of worldview formation in Bible colleges and the struggle to find a definitive assessment tool to meet accreditation standards. RS describes his assessment as piecemeal and incremental; going question by question looking for ways to give feedback to students that affirms development gains and challenges them to further growth and clarity. Both DW and DH acknowledge the moderate size of their schools helps with a small gains approach to assessment because they get to know students better through the varying contexts

inherent to their relationships. They call these soft or social evaluations. However, they do admit that collecting tangible data on this area can be ambiguous for compilation and annual comparisons. Once again, this likely reflects the secondary benefit theme whereby worldview development is tied to other more concrete areas of assessment such as biblical literacy, ministry skills, and critical-thinking abilities.

Emergent Themes

This section reports the outcomes of theoretical coding that emerged at the latent level, which means these themes represent the underlying ideas and patterns in the data pertinent to the research questions at hand (Boyatzis, 1998). Five themes emerged from the data, each with inherent limitations and dangers:

1. *Preliminary factors related to teachers, the curriculum, and students.* A teacher's posture towards learning is communicated, often implicitly, in ways that invite students to engage in worldview formation in positive or negative ways. In the case of the former, a positive posture from the teacher involves an honest clarity in pointing to biblical principles and humble conviction that holds these to be credible. In the case of the latter, a teacher that is overly controlling with outcomes and disrespectful of diverging opinions will create a learning environment conducive only to students who share similar toxic life themes and narrow ideologies. A Christian teacher should be clear on the goal they are working toward in terms of student learning. Each participant in this research held passion for complementary components of worldview formation. For example, the acceptance of objective truth, integration of Scripture, placing ourselves into mission/purposes of God in this world, holistic learning, clear articulation of a personal worldview, etc. These factors reveal the opportunities for student worldview formation

depending on the focus of the subject at hand. In other words, are worldview issues a primary or secondary focus to the subject matter? In the case of these participants, worldview formation was often secondary in focus, which contributes to the difficulty of assessment and the implicit nature of worldview's place in the curriculum. Finally, students bring important factors to consider as well. Overall readiness to engage emerged repeatedly during this research. Students are at different levels of maturity and inclination to get past the distractions and competing ideas of culture so they can apply the critical thinking necessary to make the most of what Schlitz (2007) calls, noetic moments. These moments have power to sensitize them to matters of sin and holiness as they root their lives deeper in Christ (cf. Col. 2:6-7).

- a. *Limitations:* College educators only have a limited amount of time with students corresponding with their program. As a result, deeper learning and/or change are not always feasible. College teachers are also constrained by the limitations students bring to learning as it relates to readiness and cognitive abilities.
 - b. *Dangers:* Teachers should evaluate their posture toward learning to ensure that any negative life themes, excessive attempts to control outcomes, and undue reliance on personal charisma are not driving the teaching endeavor.
2. *The most relevant cognitive, affective, and conative learning objectives.* The literature and data from this research demonstrate the common cognitive objective of students being able to articulate the primary components of their worldview. In other words, that students are able to bring prudent biblical and theological knowledge to bear on describing the reason for the hope they have in Christ (cf. 1 Peter 3:15), which stands in stark contrast to positions such as moralistic therapeutic deism. As one participant put it,

faith that is genuine seeks to understand its object. Faith inspires the holder to greater intellectual comprehension, which equips the learner to discern good reasoning from bad. A recurring affective learning objective is for students to learn empathy, which is the ability to understand and share the feelings or perspectives of another. Empathy has value for the present as well as the past. It fosters gentleness instead of judgement; it values robust discussion without hostility. Finally, the data show that expressions of students' ownership of faith and worldview is foremost among conative objectives. Huitt (1999) describes conation as connecting the cognitive and affective to behavior through its close association with the issue of "why." The student's motivation becomes personal, intentional, planful, deliberate, and goal-oriented. The longing is for students to become proactive, rather than reactive, in developing their worldview. According to the Oxford Dictionary, the definition of reactive is "acting in response to a situation rather than creating or controlling it" ("Reactive," 2011). If Bible college teachers can tap into proactive motivations, it can help set their students on a sustainable trajectory of stable Christian faith and good discipline (cf. Colossians 2:5).

- a. *Limitations:* Student learning is limited by the levels of readiness and cognitive abilities inherent to each individual. The data present worldview development as developing and deepening in a slow process, which is somewhat elusive to clear assessment. Moreover, a worldview continues to form after leaving college so Bible college educators should not consider it their duty to produce an end product or completed point of arrival. As Galindo (1998) points out, students are neither blank slates when they enter the learning environment nor are they finished products; they have simply moved a bit more on the redemptive process.

- b. *Dangers:* The impression persists that college-aged young people are heavily distracted by popular culture. Adding to that noise through Christianized clatter only furthers an inability to discern what is good and pleasing to God in the surrounding culture. The challenge is to teach students to evaluate their world through the filter of worldview guidance provided in Scripture, but also dispel the oversimplified notion that a Christian worldview can be satisfactorily distilled down to a set of correct answers on a doctrinal inventory (i.e., narrow propositionalism).
- 3. *The deconstruction-reconstruction (D-R) continuum and active learning.* I use the word continuum to describe this theme because it paints a picture of a “continuous series of things that blend into each other so gradually and seamlessly that it is impossible to say where one becomes the next” (“Continuum,” 2011). According to one participant, students describe the experience as throwing a puzzle in the air, then rebuilding it. Therefore, student perceptions do feature unsettling moments and perhaps times where the pushing of boundaries feels risky. Creating an environment of community participation through active learning methods helps keep students from sliding into isolation as they navigate the continuum. Helpful techniques here include robust discussion and debates, field trips, tactile learning, debriefing on commonly read or viewed resources, and classroom presentations.
 - a. *Limitations:* College-aged students typically do have limited critical thinking abilities and sometimes inadequate experience from which they can reflect upon for deeper learning. Also, teachers must remember the pace and verve they bring to deconstruction varies from class to class. Moreover, students’ sensitivities to

deconstructing experiences should be monitored to avoid excessive discouragement.

- b. *Dangers*: Some teachers may pride themselves on pedagogy that creates more questions than settling firm positions. Hiebert challenges such deconstructive practices, claiming that “damage might even happen to students at some Bible colleges where professors sometimes tend to leave their students with more questions than useful answers to these questions, all in the name of “university level” education and sometimes out of concerns for responsible advocacy” (2005, p. 45).
4. *What they see is what you teach*. According to the data, professors believe their example of genuine Christian worldview is foremost to how their relationships with students enhance the learning experience. In specific, the data reveal that a teacher’s devotion to Scripture and their ability to integrate its principles into life and pedagogy is just as important as the literature suggests (Ter Avest et al., 2012). The discovery of the term “Bibline” via one participant is an especially delightful addition to this research. Furthermore, a teacher’s demonstration of rigorous critical thinking skills and ability to evaluate complex social issues or cultural influences through a Christian lens or biblical principles is deemed essential according to the data. This extends into how teachers are perceived to value other’s perspectives as they dialogue across differences rooted in worldview. Finally, the data show that extending relationship beyond the classroom into informal contact and ministry/service together is valuable but a teacher should not overstate its importance to worldview development. Although, it must be understood that

these data come from teachers so further research with students should be conducted to support this theme.

- a. *Limitations:* The data suggests that a student's initiative or willingness to respond to relationship-building with faculty sets the limits on potential benefits gained here. Examples include informal, follow-up conversations, service-learning together, and receiving admonishment from faculty members.
 - b. *Dangers:* A teacher in Christian higher education must nurture their time alone with God. One participant lamented the unspoken expectations concerning the more a faculty member is in contact with students the better. This interviewee specifically cautioned extroverted faculty from thinking the energy they feel from being around students all the time may not be as positive for their spiritual health as it seems. The lesson is clear: do not neglect your soul for the sake of perceived impact. A teacher's influence on students' worldview formation is not measured by time alone.
5. *Assess for small gains in the process.* The data demonstrate a common assumption held by institutions in previous years; namely, that Christian worldview formation happens implicitly within the standard structure of a Bible college curriculum, the exposure to seasoned Christian teachers, and the spiritual ethos of the campus. However, the newer accreditation requirement to demonstrate how programs enable students to achieve a biblical worldview is challenging faculty members to pinpoint exactly where to assess progress toward and/or achievement of this objective. None of the institutions represented here have found a satisfactory worldview assessment tool. Moreover, multiple choice tests or propositional-focused tools are a less preferred approach than

something that demonstrates a student's ability to apply or integrate theological knowledge. As a result, faculty often resort to assessing small academic and personal gains observed in various components of worldview such as critical thinking, the ability to articulate philosophical tenets, or the application of orthodox doctrine to practical living. The approach seems suitable and faculty appear content to work within the slow process of transformational learning that undoubtedly continues long after graduation.

Summary

The findings reveal several areas consistent with the literature, such as learning objectives that raise awareness of worldview issues and the desire to see students gain greater ownership of these matters. Teachers want students to become more intentional about evaluating the cultural stories that compete for their attention and devotion against the revelation of God's ways as recorded in the Bible. Scripture has lifted the veil of confusion about the nature of God and what he has declared about the questions we perceive to comprise a worldview.

These data from personal interviews with expert teachers are consistent with the literature on the relevance of worldview formation for working through values, ethics, and moral dilemmas – both individually and interpersonally. Examining moral dilemmas have special importance because these equip students with abilities to discern and interact respectfully with each other's perspectives, thus demonstrating the worldview concept as a lived reality of intersecting narratives rife with the potential for conflict.

The interview data hint at more acceptance of the trend in moving away from the transmissional model of pedagogy that relies heavily on cognitive and theoretical instruction comprised of lectures, individual assignments, and research papers. However, these hints appear more in the conversations with the participants than the evidence from the triangulation data.

Course syllabi and college catalogs still tend to portray the transmissional model with its focus on quizzes, tests, research papers, and lectures. Notable exceptions include the use of field trips, tactile learning, in-class debates, and stimulating visual teaching aids (e.g., PowerPoint slides). The literature supports these as more effective forms of pedagogy for worldview formation.

Nevertheless, some surprising inconsistencies with the literature also arose in the data. For example, student readiness for engagement in the concepts and issues was a predominant factor that persisted in the interviews while it was less so in the literature. Participants also spoke much more about the potential for negative influence by the teacher than the works reviewed for chapter two. In addition, those interviewed made little mention of the co-curricular contributions of college life to worldview formation apart from informal interactions. Finally, none of the schools represented here have investigated the worldview assessment tools that were discovered in the literature review. It appears that a survey of these worldview inventories that evaluates their strengths and weaknesses should be done and distributed among ABHE member colleges for their review.

Finally, two notable metaphors arose from the data. First, the image of throwing a puzzle into the air then reassembling it together is an excellent portrayal of the deconstruction-reconstruction continuum. Also, the illustration of teachers and students together setting a trajectory that guides students forward as life-long learners, anticipating Christian faith engages complex issues and requires difficult decisions that are rooted in clarity of worldview. The following chapter now turns to evaluating and interpreting these data resulting from the interviews. A model for worldview pedagogy is presented based on logical connectivity with the previous data.

CHAPTER FIVE

Discussions and Conclusions

Introduction

To date, only emerging qualitative data exist on pedagogy employed specifically for worldview formation, especially in Christian contexts. In keeping with the aim of grounded theory, I carried out this qualitative research using personal interviews for the goal of discovering a theory for the processes expert teachers use in employing effective worldview pedagogy. This stage of the dissertation involves a discussion of the research results and presentation of a theoretical model. Birks and Mills define a grounded theory model as “an explanatory scheme comprising a set of concepts related to each other through logical patterns of connectivity” (2015, p. 108).

To accomplish the purpose of this study, I explored the following questions that align with the selected problem and intent of the research:

1. What instructional designs and pedagogical methods are especially effective for raising worldview awareness and shaping Christian worldview development?
2. How does the worldview of the teacher and his or her relationships with students influence pedagogical effectiveness?
3. How are teachers assessing college students for worldview awareness and development?

Discussion

Research question one. This study demonstrates credibility through findings that are comparable to several areas in the established literature; namely, in matters of learning objectives, cultural engagement, the inadequacies of strict transmissional approaches, and the value of active learning strategies. However, this investigation also brings legitimate additions

to the literature through a credible methodology yielding data grounded in the personal interviews. The following sections are presented as worthy of attention for Bible college educators.

Preliminary knowledge to consider before instructional design begins. A sound instructional design and pedagogical methodology for Christian worldview formation must begin with clarifying a few significant preliminary factors. Chief among these would be the personal presuppositions toward the worldview concept. There were four stances observed among the interview participants: a) indifference, b) rejection, c) caution, and d) enthusiasm. However, regardless of a professor's standpoint, the implicit nature of worldview development occurs in students throughout the college experience.

Perhaps more important to a teacher than either their attitude or use of the term worldview is clarifying what they are contending for as an educator. The data in this dissertation reveal different yet complementary aspects of formation that find their way into worldview pedagogy. For example, one participant held a strong passion for asserting the existence of absolute truth. Another repeatedly expressed a hunger to convince his students to place their lives in the unfolding story of God's purposes in this world. A history professor interviewed openly claims he does not primarily want his students to come away with a love of history, but rather to develop critical thinking and greater relevance for contemporary living through learning appropriate skills in hermeneutics and empathy. Overall, a teacher's passion will certainly come through, but it will be just one component that contributes to a student's worldview formation.

Teachers in Bible colleges are constrained by the levels of personal maturity and cognitive development students bring to the institution. These hold sway on a student's overall readiness for the learning that moves worldview formation forward. In addition, Kanitz's

observation of multiple Christian worldviews and the influence of interpretive communities certainly hold sway on readiness to learn. After all, a college educational experience is just one of a number of influences upon a student's worldview. As Kanitz puts it "we are not starting with open plots ready for cultivation; we are starting with densely populated intellectual ground with various worldviews firmly entrenched and others competing for space. This presents enormous pedagogical challenges" (2005, p. 105). A teacher's posture towards control or conformity here makes a vital difference in student receptivity.

Acree's (2003) advice to assume a piecemeal approach as the norm in today's students is noteworthy at this stage. She refers to student ignorance or dualism concerning contradictions between biblical values and secular theories. The situation is curious and concerning. For example, I have had several encounters with undergraduate students who expressed reticence to theological perspectives being included in behavioral and social science-based general studies courses. Wolf's (2011) warnings about naturalism explain the cause for concern. Students are attracted to the methodology and knowledge base that exists in the behavioral and social sciences, but do struggle to resolve the worldview principles by which these disciplines explain human behavior and social phenomena as strictly part of the natural, empirical world. The situation reflects Wilson's (2000, 1998) prediction that the study of ethics would be taken out of the hands of philosophers and *biologized*. The term means to assimilate a subject into a biological framework or context; hence, a naturalistic worldview, which was a burgeoning perspective at the time of Wilson's original writing. Haidt (2012) also alludes to Wilson's prediction in suggesting that a person's right or left-leaning values related to religion or politics might actually be rooted in their genetic makeup.

In short, the situation centers on the concern that students often end up bifurcating their metaphysical and epistemological understandings rather than attempting integration. Typically, this is because they fear the integration will be done poorly thus leaving the social science knowledge base seriously diluted. As a result, I recommend that faculty anticipate ignorance or inconsistencies in a student's presuppositions, then plan content and pedagogical practices that push students to wrestle with theological reflection.

Nevertheless, I affirm the benefits of learning from a knowledge base that represents a non-Christian worldview. Ironically, there are even biblical examples of learning from those outside the community of God's people. Some examples include the proverbs from Agur and King Lemuel (Pr. 30:1 – 31:31) and the thirty sayings from the wise in Proverbs 22:17 – 24:22, which are generally accepted by scholars as influenced by the Teaching of Amenemope – an ancient Egyptian wisdom text. Goldingay explains this reflects “the theological conviction that the God of Israel is God of all nations and of all of life. It is not therefore surprising when other peoples perceive truths about life which the people of God can also profit from” (1994, p. 602). Therefore, I suggest the tension with Christian worldview and naturalism could be mitigated for believers through two realizations: a) that people usually do not exemplify any single worldview in pure form; our real lives are a composite of multiple influences even if we hold to a dominant confessional belief system (Wilkens & Sanford, 2009), and b) appreciation for the insights gained through naturalism can be viewed as common ground between believers and non-believers when viewed as mutually profitable knowledge (i.e., general revelation) which lies outside the scope of God's special revelation (Pinnock, 2000)

Tools to employ during instructional design. From the outset, faculty members must keep a variety of educational philosophies in mind as they draft learning objectives. A Protestant

evangelical approach to higher education tends to be expressed through a tradition rooted in Theistic Realism, Essentialist, and Behaviorist assumptions. However, the personal interviews and triangulation data from this research reveal many learning objectives that would be better served through an educational philosophy informed by cognitive-constructivism and humanist characteristics. Adopting a design based on these philosophies in certain courses can equip students for the leadership development and critical thinking skills needed for serving society and the Church. For example, a constructivist pedagogy – learner-centered, inquiry guided, and problem-based – can feature more active learning, customizable assignments, and engagement with issues relevant to student roles as pastors and Christian leaders.

I realize that institutional life has a way of pushing philosophical reflection off the daily schedule, especially for busy administrative faculty. However, an instructional design with learning outcomes aimed at deepening student knowledge, equipping students for group decision-making, or providing introspective, experiential learning but delivered primarily through lectures and a set of objective tests is a mismatched experience for students. The design should fit the objectives of instruction. This was an area of concern observed in certain syllabi submitted as triangulation data. This is where deans or expert faculty of Bible colleges can step in to assist professors struggling with lackluster instructional design. This aspect of teaching plans learning environments around matching teaching methods with learning objectives, which makes holistic learning possible (Merrill et al., 1996). Student satisfaction is an important focus of assessment and a well-planned, engaging instructional design is an area where this is felt strongly.

Finally, in reflecting on the concerns from the participants about student readiness, I recommend that Christian institutions begin to gather and share data from survey instruments

such as the College Student Inventory™ from Ruffalo Noel-Levitz, which help faculty identify leading non-cognitive indicators of students' success, retention, and persistence. Such information would help teachers differentiate instruction to suit specific readiness challenges.

Pedagogical methods in the classroom. Knowledge is valuable, but knowledge alone cannot persuade a student to learn. A teacher's influence must touch the emotions as well, so it is essential for the teacher to show genuine enthusiasm for the topic. Shamp-Ellis and Cross (2009) lament how often messages about effective pedagogy are presented solely as gaining skills in classroom management, sensitivity to situational awareness, or the application of a variety of teaching strategies. Conversely, what they posit as a more important question is: how do teachers personally relate to the subject matter? Their hope is that educators understand that a teacher's immediacy – what they call *being there* – through a sincere “display of enthusiasm or passion for the topic itself, the learners, and the involvement of the topic with self, students, and the world is rewarding to both the teacher and the students” (Shamp-Ellis & Cross, 2009, para. 14).

Teachers in Christian environments must let this aspect of themselves show if they are to be the salty lights (cf. Matthew 5:13-14) Ellis and Cross describe. For instance, I once asked a faculty member to identify what he would credit for his effectiveness. He responded, “It likely comes from my Pentecostal background, but I get fired up in the classroom and that's contagious.” Such pedagogy is a testimony of their own joy and wonder in being formed into a reflection of Christ. It was a delight throughout the interviews for this research to witness the participants get excited when they talked about their subject matter, especially in the context of what they are contending for in student worldview formation.

The literature review and personal interviews in this research serve to confirm the tremendous value of incorporating active learning. While this approach should not be overstated, given that a variety of teaching approaches is likely more effective than a single method (Hetzel & Walters, 2007), observations of the triangulation data suggest its use is marginal in some of the participants' courses. Academic deans can use faculty development sessions to review excellent articles such as Jordan, Bawden, and Bergmann (2008) or Collier and Dowson (2008), which expose faculty to methods other than the transmissional educational model, which Ritzer (2011) would likely describe as McDonaldized – i.e., marked by mundane routine, irrational standards, and homogenized culture. Incorporating more student-centered, active learning such as in the transformational model (Collier & Dowson, 2008) would serve the purposes of worldview pedagogy well.

Research question two. This area of the research regards a healthy posture in the learning relationships essential for the context for Christian worldview formation. Certainly every teacher sets an example, but what constitutes a good example from the faculty toward students in Christian higher education? Hetzel and Walters' (2007) research confirms the top value that students hold toward faculty is that they demonstrate Christian ethics in interactions with others as well as an ability to integrate Christian worldview into their course content.

These values weighed heavily on my mind recently when I had to stand before our student body to announce that an allegation of sexual assault against one of our resident assistants had been proven true. I realized that as I drafted my public statement it was going to leave an indelible impression in the minds of our students concerning the ethics of our institution related to loving people during grim and painful moments. As I explained our process of

investigation and what we could and could not tell them, it occurred to me that I was giving one of the most important lessons of my teaching career.

Participants in this research would often emphasize that equipping students for relevance and empathetic social consciousness is a critical aspect of pedagogy for Christian worldview formation. The skill is sometimes referred to as cultural competence, which I adapted from Segen (“Cultural Competence,” 2006) and define as the ability to appreciate what is commendable, articulate what is compatible and incompatible, and interact respectfully with persons from cultures and/or belief systems other than one’s own, based on various factors. This ability would rely heavily on a person’s metacognition – i.e., awareness and understanding of their own thought processes. The literature as well as this research confirm that students do learn this ability from their teacher. These data remind me to be more thoughtful about my communication style, especially in the classroom. It is tempting for teachers, in the pursuit of classroom vivacity, to end up portraying themselves poorly. Humor, sarcasm, and teasing do not always connect with students, especially those from differing cultures and church traditions. Overall, a teacher’s passion for the topic and its relation to Christian worldview, coupled with a mature posture toward social consciousness, sets a favorable context for student formation.

Research question three. It was discouraging that virtually all schools represented in this research are struggling to assess how students acquire and express a biblical worldview. However, the insight of assessing by small gains is a reasonable and refreshing approach. After all, Bible colleges cannot produce in students a fully developed worldview and then measure it on a simple test. A worldview continues to form long after a student leaves college. Moreover, Peabody offers this timely insight in his Christmas-themed article saying that in “reflecting on the birth of Christ, here's what I realized: Jesus becoming a baby automatically put God's seal of

approval on a slow process... Grace for slowness is built into the very nature of the Incarnation.” (2015, para. 6, 10).

This perspective has me questioning the value of several of the assessment tools discovered in the literature review; namely, those that reduce the indicators of a Christian worldview to a succinct group of multiple choice answers that are essentially testing for propositional conformity. This could be taught in a single doctrinal survey course. The approach seems so antithetical to what the participants hope to see as growth in their students. Frankly, I doubt any of them would want use an assessment tool like that.

There are some professors who prefer objective formats that rely on quantitative data for assessment while others prefer more subjective approaches that rely on a student demonstrating application of knowledge for assessment, despite being more labor intensive. Overall, as long as the college can gather assessment data from multiple sources, each of which demonstrate student achievement on specific components of worldview, then a credible form of assessment is possible.

For example, I would argue the foremost components of the secular western worldview today are: scientific naturalism (prime reality; truth), humanism (prime importance), individualism (one’s identity in society), progressivism (what is best for improving society and the human condition), consumerism (success; stewardship), and an ethical system rooted in situationism (do whatever is deemed loving), consequentialist principles (do whatever you want as long as it does not hurt others) and sensualism (feelings are the primary criterion for what is good and gives direction to cognition). Each of these areas can be addressed and assessed in Bible college courses on ethics, biblical theology, psychology, and even administration. Therefore, it is conceivable to observe students’ growth over time in testing and approving God’s

will (cf. Romans 12:2) in these matters as they seek to understand what it is to be a people set apart for God in contrast to the worldviews around them.

Proposed Model for Worldview Pedagogy in Bible Colleges

The themes discovered in this research provide the elements of a plausible model for guiding pedagogy for Christian worldview formation. The model shown in Figure 1 (see p. 103) incorporates these four themes:

1. *Clarity on goal:* This theme encompasses the preliminary factors influencing the teacher, the curriculum, and the students. First, a teacher should have clarity on what aspect of worldview formation they are attempting to affect. Because there are several components to a worldview that a college education can address, a teacher can simply focus their efforts on what he/she is equipped to do well in their scope of the curriculum. The limitations that come into play here include the overall time a student will be in a college, which can be anywhere from a semester to over four years. In addition, the cognitive abilities students can apply to their studies are a potential limitation because these vary in the typical 18 to 22-year-old undergraduate population. Some legitimate dangers exist here as well, mostly in the form of the teacher's posture toward worldview education, which could involve excessive control over outcomes or displaying a lack of humility toward the variety of expressions of Christian worldview represented in the student body and larger church community.
2. *Relevant holistic objectives:* The attention here is on creating a sound instructional design that brings greater coherence between the world the student experiences and the Christian values that apply to it. In addition, the learning should be paced reasonably to match the gradual development of a worldview typical to human experience. This might

challenge the amount of coverage curriculum designers would like to accomplish in a program, but it would likely have a better effect on students. Some specific dangers at this point are designing learning objectives that focus on strict propositional content for recitation apart from a measure of transformation. However, even a set of relevant and engaging learning objectives cannot motivate students that are too distracted by elements of popular culture and do not apply the engagement necessary to challenge and reshape their presuppositions.

3. *D-R continuum + active learning*: This portion of the model represents the most common pedagogical methods used by the participants. The D-R continuum means using a scope of pedagogy that moves along a continuum of deconstruction and reconstruction strategies for testing and remaking the presuppositions students bring to the topic at hand. Using this in combination with a variety of active learning approaches where the teacher participates with the students sets the posture for the learning relationships. When students experience the metaphorical “throwing of the puzzle in the air”, they must have amenable relationships with fellow students and the teacher to make the D-R continuum experience much more constructive. This aspect of the model creates liminal moments in the learning experience, which means students are put into a transitional or initial stage of the process. Interestingly, liminality is something all Christians experience as part of their worldview due to the theological concept known as “already, but not yet”, which is an interpretation of the kingdom of God (also called inaugurated eschatology). The idea is attributed to Ladd (1959) who concluded the kingdom of God is both present and future reality. Thus, liminality is experienced as a type of threshold where Christians no

longer hold their previous worldview but have not fully realized the eternal worldview that awaits them when the consummation is complete.

- **Note:** the conclusion of the learning experience sets a trajectory for students' ongoing worldview development. However, while a teacher can influence this trajectory, it is neither an end product nor controllable. Its educational benefit lies in setting students on a path that helps them discern the knowledge that is worth knowing, the values that are worth holding, the decisions that are worth making, and the actions that are worth taking.

4. *Assessment data:* Data compiled from appropriately focused tools will demonstrate whether or not the institution is accomplishing and can continue to accomplish its learning objectives related to forming a biblical worldview in students. These data can inform the effectiveness of learning relationships, the instructional design, and the effects of preliminary factors on student learning. Assessment tools should focus on specific areas of worldview development related to the learning objectives, then measure small gains in keeping with an appropriate pace of formation. Tools should encompass some propositional areas as well as behavioral, social, and heart-orientations. Of course, assessment is also limited by a key preliminary factor – the amount of time the student intends to stay in college.

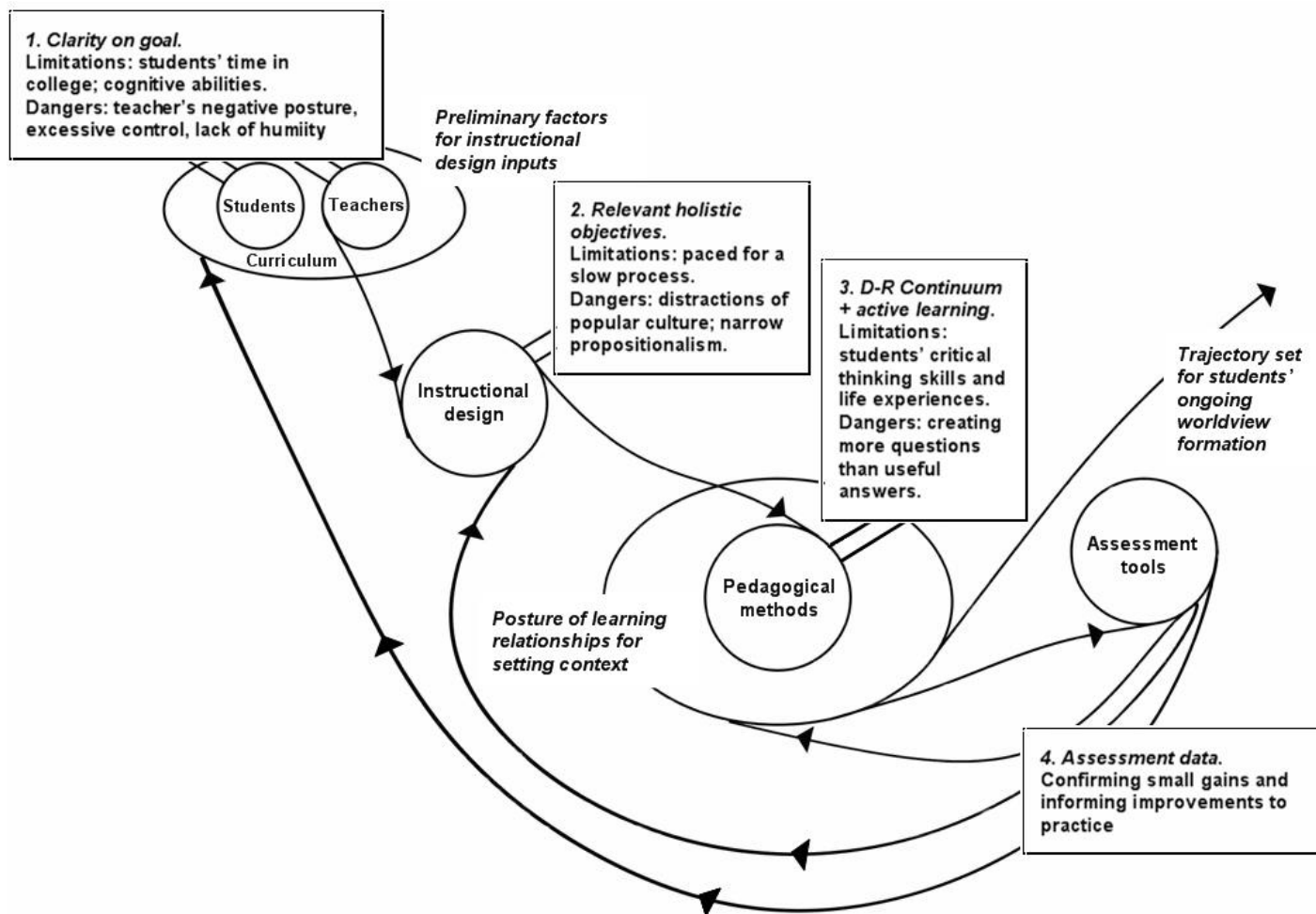


Figure 1: A model for Christian worldview pedagogy. (The four pedagogical goals are comprised of the main elements represented in the circles. The surrounding circles represent the environment within which those elements exist. The double lines between the circles and textboxes represent both limitations and dangers inherent to the element.)

Conclusions

From the perspective of a college and seminary educator, this research has encouraged me to speak with clarity and passion on what I am contending for in terms of worldview formation. This model also demonstrates the importance of obtaining better data on the preliminary factors shaping the students before I design an effective instructional plan. With this in mind, I should not spread my focus too thin nor try to be overly controlling of the outcome of

my pedagogy. In short, I must accept a place of influence rather than control over a student's worldview. My content and requirements should take into account the cognitive abilities of undergraduate students and be paced to accommodate a reasonable rate of process time, especially during the D-R continuum portions of the material. Finally, it is clear that assessing the component areas of a Christian worldview (i.e., propositional, intellectual, behavioral, social, and heart-orientations) separately through coordinated tools would be better than attempting to use a single tool that risks oversimplification. Compiling the component pieces of assessment together will gain a superior picture of worldview development over the duration of a college program that builds up students one small gain at a time.

Recommendations

This section includes recommendations for improvements to the research as well as venues for sharing insights from the study. As for the research design and processes, the first recommendation would be to increase credibility of the data by expanding the sample size of interview participants. Although I was able to reach a saturation point on questions two and three with just six participants, there is room to gain further data on perceptions of the worldview concept and the instructional designs used by expert faculty. In addition, I would like to continue improving my method of interviewing by simply gaining more experience. For example, I did notice that my techniques of probing and elaborating were becoming more effective with the last two participants. I did notice an important caution while transcribing interviews though: I would not recommend using a software program to transcribe the interviews because participants do not talk as smoothly as they write. I often had to smooth out their spoken comments while transcribing manually because of several awkward phrases and

diverging thoughts while they processed an answer verbally. Entrusting transcription to a software program would leave a researcher with disjointed transcripts.

I recommend this research be presented to the Educational Standards Committee for my college's denomination. This committee meets annually to discuss various challenges occurring in our five denominationally owned institutions. Usually, the topics are centered around curricular, recruitment, and enrolment strategies, however, research like this would be a refreshing change of focus to improving the teaching in our colleges. The data from this research reveal several areas for discussion including conceptual stances about worldview, student readiness factors, pedagogical methods, and assessment strategies.

The findings of this research could also be a beneficial seminar at the ABHE annual conference within the workshop streams for academic and assessment officers. A presentation of this pedagogical model, with particular insights on assessment, would be likely be a welcome discussion point if the struggles observed in this research are widespread among other ABHE accredited colleges.

Implications for Future Study

Further qualitative work should be done to explore the affective responses of faculty to the worldview concept. Bible colleges should not simply assume everyone is onboard with the discussion and sees its inherent value. Moreover, this research revealed some helpful diversity to the worldview concept that allows a more mature view to guide curriculum design forward. Findings on this topic could be strengthened by including greater diversity in the participants, which would also increase the transferability of the findings. All participants in this research were Caucasian males with strong upbringings in western culture. This certainly gives a limited view of a teacher's approach to this type of formation. Expanding this study to include women

and people of various ethnicities would provide more comprehensive data on worldview pedagogy. Ideally, further research would also take the students' perspectives on effective pedagogical methods into consideration. After all, they are receiving the pedagogy and experiencing the formation of worldview in the Bible college environment.

The challenges of assessing worldview would be helped by publishing a review of current worldview assessment tools, explaining both their areas of strengths and limitations. Ironically, each worldview assessment tool discovered in this research tends to demonstrate the worldview and educational philosophy of its creator/designer. In other words, many are clearly propositional in nature, which likely indicates an essentialist educational approach to instruction and assessment. Others appear more constructivist in approach, emphasizing theological integration, problem-solving, and groups processes.

I wonder if a more extensive worldview evaluation test, similar to the Graduate Record Examination (GRE), would be useful for assessing college degree graduates, especially in the context of a capstone course. Like the GRE, a comprehensive worldview exam could measure propositional reasoning, critical thinking and analytical skills, social consciousness convictions, and heart-orientations that have been formed over a period of time (not necessarily limited to college) and not entirely based on the college curriculum itself. Schultz's (2013) work appears to incorporate this type of focus. A main differentiator to the GRE is that this would be useful for the students' personal awareness as well as institutional assessment. This would be far more extensive than the tools observed in the literature review for this study. Although, the highly quantitative nature of the GRE design might not suit the worldview formation context and send the wrong signals about performance, measurements or indicators of future success, and the notion of a single correct worldview.

Finally, perhaps a study could look into how an institution might assess ongoing worldview development in alumni. For example, a similar alumni-based research topic is explored by Fox (2007) who investigated the relationship between student satisfaction with their Bible college education and their persistence in ministry. Several years earlier, Cardwell and Hunt (1979) conducted a follow-up study with over a thousand seminary students who were surveyed in 1962 and 1973 for factors related to persistence. Even back then, concerns about non-persistence were thought to be the fault of inadequate training from the seminary. These examples raise questions on the relationship between student satisfaction with their Bible college education and the trajectory of their later worldview development.

It is my belief that improving Christian worldview pedagogy is an important research topic. My awareness of the worldview concept began when I was taking my college education just a few years after becoming a Christian. It was then I realized what was happening to me in those emerging years of faith and learning – I was experiencing a slow but steady worldview transformation. Ever since then I have always been around people who desired to affect change and development of people's worldviews. My hope with this research is to provide insights into not only *what* we teach, but *how* we teach as well. Both, this research demonstrates, are major influences for worldview formation.

REFERENCES

- Abshier, R. G. (2006). *Classical Christian education: Developing a biblical worldview in the 21st century*. (Master's thesis), Reformed Theological Seminary, Jackson, MI. Retrieved from http://www.tren.com/e-docs/search_w_preview.cfm?p083-0043 Theological Research Exchange Network database.
- Acree, A. (2003). *Instilling a biblical worldview by addressing postmodernity: Best practices of postsecondary Christian faculty*. (Unpublished doctoral dissertation), Oral Roberts University, Tulsa, OK.
- Ahern, K. J. (1999). Ten tips for reflexive bracketing. *Qualitative Health Research*, 9(3), 407-411. doi:10.1177/104973239900900309
- Allen, M. J. (2003). *Assessing academic programs in higher education*. San Francisco, CA: Jossey-Bass.
- Anderson, B. (1996). Personality and character development: The teacher-learner relationship. *Journal of Christian Education*, 39(1), 17-29.
- Anderson, R. C. (1977). The notion of schemata and the educational enterprise: General discussion of the conference. In R. C. Anderson, R. J. Spiro, & W. E. Montague (Eds.), *Schooling and the acquisition of knowledge* (pp. 415-431). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Armstrong, D., & McMahon, B. (2000, September). *Transformational pedagogy: Practitioners' perspectives*. Paper presented at the 5th Annual Values and Educational Leadership Conference, Bridgetown, Barbados.
- Ausubel, D. P. (1960). The use of advance organizers in the learning and retention of meaningful verbal material. *Journal of Educational Psychology*, 51(5), 267-272.

Badii, R., & Fabbri, E. (2011). Framing our world, or: Reconsidering the idea of Weltbild.

Humana.Mente Journal of Philosophical Studies, 18, iii-xxix.

Badley, K. (1994). The faith/learning integration movement in Christian higher education:

Slogan or substance? *Journal of Research on Christian Education*, 3(1), 13-33.

doi:10.1080/10656219409484798

Bain, K. (2004). *What the best college teachers do*. Cambridge: Harvard University Press.

Barron, W. L. (2010). *An ethical pedagogy for contemporary culture: Educating high school*

juniors and seniors in a Christian ethical model. (Doctoral dissertation), Erskine

Theological Seminary, Due West, SC. Available from Theological Research Exchange

Network database.

Bartolomé, L. (2007). Critical pedagogy and teacher education. In P. McLaren & J. Kinchloe

(Eds.), *Critical pedagogy: Where are we now?* (pp. 289-314). New York, NY: Peter Lang Publishing.

Bass, B. M. (1985). *Leadership and performance beyond expectations*. New York, NY: Free

Press.

Baumann, E. K. (2011). *Worldview as worship: The dynamics of a transformative Christian*

education. Eugene, OR: Wipf & Stock.

Belcher, E. C. (2009). Is the heart of education the education of the heart? *ICCTE Journal*, 2(1).

Retrieved from <http://icctejournal.org/issues/v2i1/v2i1-belcher/>

Belcher, E. C., & Parr, G. (2011). Exploring worldview and identity in an institution of Christian

higher education. *Research and Development in Higher Education*, 34, 40-49.

Bertrand, J. M. (2007). *Rethinking worldview: Learning to think, live, and speak in this world*.

Wheaton, IL: Crossway.

- Birks, M., & Mills, J. (2015). *Grounded theory: A practical guide*. Thousand Oaks, CA: SAGE Publications.
- Boise Bible College - Doctrinal Position. (2014). Retrieved from <http://www.boisebible.edu/admissions/bbc-doctrinal-position>
- Bowen, G. A. (2006). Grounded theory and sensitizing concepts. *International Journal of Qualitative Methods*, 5(3), 12-23.
- Bowers, B., & Schatzman, L. (2009). Dimensional analysis. In J. M. Morse, P. Noerager Stern, J. Corbin, B. Bowers, K. Charmaz, & B. Clark (Eds.), *Developing grounded theory: The second generation* (pp. 86– 127). Walnut Creek, CA: Left Coast Press.
- Boyatzis, R. (1998). *Transforming qualitative information: Thematic analysis and code development*. Thousand Oaks, CA: Sage.
- Brickhill, C. E. (2010). *A comparative analysis of factors influencing the development of a biblical worldview in Christian middle-school students*. (Doctoral dissertation), Liberty University, Lynchburg, VA. Retrieved from <http://digitalcommons.liberty.edu/doctoral/370/>
- Brooks, A. K. (2000). Transformation. In E. Hayes & D. Flannery (Eds.), *Women as learners: The significance of gender in adult learning*. San Francisco, CA: Jossey-Bass.
- Brown, B. (2006). Shame resilience theory: A grounded theory study on women and shame. *Families in Society*, 87(1), 43-52. doi:10.1606/1044-3894.3483
- Brown, B. (2012). *Daring greatly: How the courage to be vulnerable transforms the way we live, love, parent, and lead*. New York, NY: Gotham Books.
- Bryant, M. H. (2008). *A comparative analysis of factors contributing to the biblical worldview among high school students in the American Association of Christian Schools of Georgia*,

- North Carolina, and South Carolina* (Doctoral dissertation), Liberty University, Lynchburg, VA. Retrieved from <http://digitalcommons.liberty.edu/doctoral/1027/>
- Bufford, R. K. (2007). Philosophical foundations for clinical supervision within a Christian worldview. *Journal of Psychology and Christianity*, 26(4), 293-297.
- Burnett, D. (1990). *Clash of worlds*. Eastbourne, UK: MARC.
- Carpenter, D. M. (2015). Worldview, Christian maturity, and young adulthood: The what, when, where, and how of education after high school. In W. Jeynes & E. Martinez (Eds.), *Ministering spiritually to families* (pp. 131-143): Springer International Publishing.
- Carpenter, D. R. (2007). Phenomenology as method. In H. J. Streubert & D. R. Carpenter (Eds.), *Qualitative research in nursing: Advancing the humanistic imperative*. Philadelphia, PA: Lippincott.
- Carr, N., & Mitchell, J. (2007). The neglected role of religion and worldview in schooling for wisdom, character, and virtue. In D. N. Aspin & J. D. Chapman (Eds.), *Values education and lifelong learning* (Vol. 10, pp. 295-314): Springer Netherlands.
- Chan, Y.-C., & Wong, N.-Y. (2014). Worldviews, religions, and beliefs about teaching and learning: Perception of mathematics teachers with different religious backgrounds. *Educational Studies in Mathematics*, 87(3), 251-277. doi:10.1007/s10649-014-9555-1
- Charmaz, K. (2000). Grounded theory: Objectivist and constructivist methods. In N. Denzin & Y. Lincoln (Eds.), *Handbook of qualitative research* (2nd ed., pp. 509-535). Thousand Oaks, CA: SAGE.
- Charmaz, K. (2014). *Constructing grounded theory: A practical guide through qualitative analysis*. Thousand Oaks, CA: SAGE Publications Inc.

- Clarke, A. (2005). *Situational analysis: Grounded theory after the postmodern turn*. Thousand Oaks, CA: SAGE Publications.
- Cobern, W. (1996). Worldview theory and conceptual change in science education. *Science Education*, 80(5), 579-610.
- Cohen, L. M., & Gelbrich, J. (1999). Task 4: What is my philosophy of education? Retrieved from <http://oregonstate.edu/instruct/ed416/Task4.html>
- Collier, J., & Dowson, M. (2008). Beyond transmissional pedagogies in Christian education: One school's recasting of values education. *Journal of Research on Christian Education*, 17(2), 199-216. doi:10.1080/10656210802433418
- Continuum. (2011). *Concise Oxford English Dictionary*. Oxford, UK: Oxford University Press.
- Cooling, T. (1994). *A Christian vision for state education*. London SPCK.
- Creswell, J. W. (2002). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*. Upper Saddle River, NJ: Pearson Education.
- Creswell, J. W. (2013). *Qualitative inquiry and research design: Choosing among five approaches* (3rd ed.). Thousand Oaks, CA: SAGE Publications, Inc.
- Cultural Competence. (2006). In J. C. Segen (Ed.), *Concise dictionary of modern medicine*. New York, NY: McGraw-Hill
- Danaher, W. (2009). Reconstructing Christian ethics: Exploring constructivist practices for teaching Christian ethics in the masters of divinity curriculum. *Teaching Theology and Religion*, 12(2), 101-108.
- Daniels, D., Franz, R., & Wong, K. (2000). A classroom with a worldview: Making spiritual assumptions explicit in management education. *Journal of Management Education*, 24(5), 540-561.

- Darko, L. J. (2009). *Student leadership development: A case study*. (Master's thesis). Retrieved from
http://research.avondale.edu.au/cgi/viewcontent.cgi?article=1013&context=theses_masters_coursework
- de Oliveira, P. C. (2006). *Developing an interdisciplinary analysis and application of worldview concepts for Christian mission*. (Unpublished doctoral dissertation), Andrews University, Seventh Day Adventist Theological Seminary, Berrien Springs, MI.
- Deckard, S. (1998). *Creation Worldview Test (Version CWT-01)*. Lexington, KY: Nehemiah Institute, Inc.
- Dilthey, W. (1989). *Wilhelm Dilthey: Selected works, Vol. 1: Introduction to the human sciences* (R. A. Makkreel & F. Rodi Eds. Vol. 1). Princeton, NJ: Princeton University Press.
- Dolan, R. P. (2010). *Christian students' worldviews and propensity for mission teaching*. (Doctoral dissertation), Liberty University, Lynchburg, VA. Retrieved from
<http://digitalcommons.liberty.edu/doctoral/410/>
- Dunaway, J. M. (2005). *Gladly learn, gladly teach: Living out one's calling in the twenty-first century academy*. Macon, GA: Mercer University Press
- Edlin, R. (2009). Christian education and worldview. *ICCTE Journal*, 3(2). Retrieved from
<http://icctejournal.org/issues/v3i2/v3i2-edlin/>
- Estep, J. R., Anthony, M. J., & Allison, G. R. (2008). *A theology for Christian education*. Nashville, TN: B & H Publishing Group.
- Expert. (2003). In F. C. Mish (Ed.), *Merriam-Webster's Collegiate Dictionary*. Springfield, MA: Merriam-Webster, Inc.

- Fong, M. (2009). The spirit moves where there is a need in higher education. *Directions for Teaching and Learning*, 120(Winter 2009), 87-95. doi:DOI: 10.1002/tl.380
- Fowler, S., Dickens, K., & Beech, G. (n.d.). *Body of knowledge*. Retrieved from Mulgoa, NSW, Australia http://www.nice.edu.au/resources/NICE_body_of_knowledge.pdf
- Fox, D. (2007). Preparing for ministry in a Bible college. *Biblical Higher Education Journal*(Winter), 51-63.
- Fyock, J. A. (2008). *The effect of teacher's worldviews on the worldviews of high school seniors*. (Doctoral dissertation), Liberty University, Lynchburg, VA. Retrieved from <http://digitalcommons.liberty.edu/cgi/viewcontent.cgi?article=1113&context=doctoral>
- Galindo, I. (1998). *The craft of Christian teaching: Essentials for becoming a very good teacher*. Cambridge, MS: Judson Press.
- Geisler, N. L., & Watkins, W. D. (1989). *Worlds apart: A handbook on world views* (2nd ed.). Grand Rapids, MI: Baker.
- Glanzer, P., & Talbert, T. (2005). The impact and implications of faith or worldviews in the classroom. *Journal of Research in Character Education*, 3(1), 25-42.
- Glaser, B. (1998). *Doing grounded theory: Issues and discussion*. Mill Valley, CA: Sociology Press.
- Glaser, B., & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research*. New York, NY: Aldine.
- Goldingay, J. (1994). Proverbs. In D. A. Carson (Ed.), *New Bible commentary: 21st century edition*. Downers Grove, Ill: Inter-Varsity Press.
- Grace Bible College - President's Letter. (2013). Retrieved from <http://www.gbcol.edu/about-grace/president-s-letter>

- Grauf-Grounds, C., Edwards, S., Macdonald, D., Mui-Teng Quek, K., & Schermer Sellers, T. (2009). Developing graduate curricula faithful to professional training and Christian worldview. *Christian Higher Education*, 8(1), 1-17. doi:10.1080/15363750802134931
- Haidt, J. (2012). *The righteous mind: Why good people are divided by politics and religion*. New York, NY: Pantheon Books.
- Harris, R. A. (2004). *The integration of faith and learning: A worldview approach*. Eugene, OR: Wipf and Stock.
- Hattie, J. A. (2003). *Teachers make a difference: What is the research evidence?* Paper presented at the Australian Council for Educational Research Annual Conference, Melbourne, Australia.
- Hattie, J. A., & Jaeger, R. J. (2003). Distinguishing expert teachers from experienced and novice teachers: University of Auckland: Australian Council for Educational Research.
- Heath, H., & Cowley, S. (2004). Developing a grounded theory approach: A comparison of Glaser and Strauss. *International Journal of Nursing Studies*, 41(2), 141-150. doi:[http://dx.doi.org/10.1016/S0020-7489\(03\)00113-5](http://dx.doi.org/10.1016/S0020-7489(03)00113-5)
- Hetzel, J., & Walters, K. (2007). Undergraduates' perceptions of ideal learning environments. *Journal of the International Community of Christians in Teacher Education*, 2(2). Retrieved from <http://ictejournal.org/issues/v2i2/v2i2-hetzel-walters/#authorBio>
- Hiebert, A. (2005). *Character with competence education: The Bible college movement in Canada*. Stienbach, MB: Association of Canadian Bible Colleges.
- Hiebert, P. (2008). *Transforming worldviews: An anthropological understanding of how people change*. Grand Rapids, MI: Baker Academic.

- Hood, J. C. (2010). Orthodoxy vs. power: The defining traits of grounded theory. In A. Bryant & K. Charmaz (Eds.), *The SAGE handbook of grounded theory* (pp. 151-164). Thousand Oaks, CA: SAGE.
- House, R. J., Hanges, P. J., Javidan, M., Dorfman, P. W., & Gupta, V. (2004). *Culture, leadership, and organizations: The GLOBE study of 62 societies*. Thousand Oaks, CA: Sage.
- Howell, B. M., & Paris, J. W. (2011). *Introducing cultural anthropology: A Christian perspective*. Grand Rapids, MI: Baker Academic.
- Howse, B. S. (n.d). *Worldview Weekend*. Retrieved from www.worldviewweekend.com
- Huitt, W. (1999). Conation as an important factor of mind. *Educational Psychology Interactive*. Retrieved from <http://www.edpsycinteractive.org/topics/conation/conation.html>
- Jacobsen, D., & Jacobsen, R. (2004). *Scholarship and Christian faith: Enlarging the conversation*. New York, NY: Oxford University Press, Inc.
- Jordan, N., Bawden, R., & Bergmann, L. (2008). Pedagogy for addressing the worldview challenge in sustainable development of agriculture. *Journal of Natural Resources and Life Sciences Education*, 37.
- Kanitz, L. (2005). Improving Christian worldview pedagogy: Going beyond mere Christianity. *Christian Higher Education*, 4(2), 99-108. doi:10.1080/15363750590923101
- Kennedy, M., & Humphreys, K. (1994). Understanding worldview transformation in members of mutual help groups. *Prevention in Human Services*, 11(1), 181-191. doi:10.1080/10852359409511202
- Knight, G. (2006). *Philosophy and education: An introduction in Christian perspective*. Berrien Springs, MI: Andrews University Press, 4th edition

- Koltko-Rivera, M. E. (2004). The psychology of worldviews. *Review of General Psychology*, 8(1), 3-58. doi:10.1037/1089-2680.8.1.3
- Krakowski, M. (2008). *Isolation and integration: Education and worldview formation in ultra-orthodox Jewish schools*. (Doctoral dissertation), Northwestern University, Evanston, ILL. ProQuest Dissertations and Theses (UMI No. 3303612) database.
- Kurtz, P. (1994). *Living without religion*. Amherst, New York: Prometheus Books.
- Ladd, G. E. (1959). *The gospel of the kingdom: Scriptural studies in the kingdom of God*. Grand Rapids, MI: Eerdmans.
- Lee, H. E. (Ed.) (2010). *Faith-based education that constructs*. Eugene, OR: Wipf & Stock.
- Lieberman, B. (2012). Brené Brown is a grounded researcher. Retrieved from <http://www.dumbofeather.com/conversation/brene-brown-is-a-grounded-researcher/>
- Lindemann, R. (2008). Constructive politics for Christian organizations. *Biblical Higher Education Journal*, 3(Winter), 59-72.
- Lindemann, R. (2012). Pedagogy for Christian worldview formation: A literature review. *Biblical Higher Education Journal*, 7(Winter), 55-66.
- Makkreel, R. (Summer 2012 Edition). Wilhelm Dilthey. In E. N. Zalta (Ed.), *The Stanford Encyclopedia of Philosophy*
- Martin, V. B., & Gynnild, A. (2011). *Grounded theory: The philosophy, method, and work of Barney Glaser*. Boca Raton, FL: BrownWalker Press.
- Masters, G. (2003). *Using research to advance professional practice*. Paper presented at the Building Teacher Quality (Conference Proceedings).
- Matthews, M. (2009a). Science, worldviews and education: An introduction. *Science, Worldviews and Education*, 1-26.

- Matthews, M. (2009b). Teaching the philosophical and worldview components of science. *Science, Worldviews and Education*, 49-80. doi:10.1007/s11191-007-9132-4
- Merrill, M. D., Drake, L., Lacy, M. J., & Pratt, J. (1996). Reclaiming instructional design. *Educational Technology*, 36(5), 5-7.
- Meyer, M., & Booker, J. (2001). *Eliciting and analyzing expert judgment: A practical guide* (Vol. 7). Philadelphia, PA: Society for Industrial and Applied Mathematics.
- Meyer, R. (2003). *A comparative analysis of the factors contributing to the biblical worldview of students enrolled in a Christian school*. (Unpublished doctoral dissertation), The Southern Baptist Theological Seminary, Nashville, TN.
- Mills, J., Bonner, A., & Francis, K. (2006). The development of constructivist grounded theory. *International Journal of Qualitative Methods*, 5(1), Article 3. Retrieved from http://www.ualberta.ca/~iiqm/backissues/5_1/pdf/mills.pdf
- Mittwede, S. K. (2013). Cognitive educational approaches as means of envisioning and effecting worldview transformation via theological education. *Journal of Education & Christian Belief*, 17(2), 301-324.
- Morales, K. (2013). *An instrument validation for a three-dimensional worldview survey among undergraduate Christian university students using principal components analysis*. (Doctoral dissertation), Liberty University. Retrieved from <http://digitalcommons.liberty.edu/doctoral/733>
- Morse, J. M. (2009). Tussles, tensions, and resolutions. In J. M. Morse, P. Noerager Stern, J. Corbin, B. Bowers, K. Charmaz, & B. Clark (Eds.), *Developing grounded theory: The second generation* (pp. 13-23). Walnut Creek, CA: Left Coast Press.

- Nash, R. H. (1992). *Worldviews in conflict: Choosing Christianity in a world of ideas*. Grand Rapids, MI: Zondervan.
- Nash, R. H. (2003). The Myth of a Value-Free Education. Retrieved from <http://www.acton.org/pub/religion-liberty/volume-1-number-4/myth-value-free-education>
- Naugle, D. M. (2002). *Worldview: The history of a concept*. Grand Rapids, MI: Eerdmans.
- Naugle, D. M. (2004). *Renewing integrity: A Christian worldview and educational practice*. Paper presented at the National Faculty Leadership Conference, Washington, D.C.
- Nehemiah Institute Inc. (2006). *PEERS-II Test: Christianity and culture assessment*. Lexington, KY: Nehemiah Institute, Inc.
- Nehemiah Institute Inc. (2012). *PEERS Testing*. Retrieved from <http://www.nehemiahinstitute.com/peers.php>
- Noddings, N. (2013). *Caring: A feminine approach to ethics and moral education*. Berkeley, CA: University of California Press.
- Peabody, J. (2015). How Christmas confronts my faulty thinking. *Leadership Journal*, December 2015. Retrieved from <http://www.christianitytoday.com/le/2015/december-web-exclusive/christmas-means-god-is-patient.html?paging=off>
- Pinnock, C. H. (2000). Revelation. In S. B. Ferguson & J. I. Packer (Eds.), *New dictionary of theology* (pp. 586). Downers Grove, IL: InterVarsity Press.
- Poe, H. L. (2004). *Christianity in the academy*. Grand Rapids, MI: Baker Academy.
- Poggenpoel, M., & Myburgh, C. P. H. (2005). Obstacles in qualitative research: Possible solutions. *Educational Administration Quarterly*, 26(2), 304-311.
- Reactive. (2011). *Concise Oxford English Dictionary*. Oxford, UK: Oxford University Press.

- Ritzer, G. (2011). *The McDonaldization of society* (6 ed.). Thousand Oaks, CA: Pine Forge Press.
- Rubin, H. J., & Rubin, I. S. (2011). *Qualitative interviewing: The art of hearing data* (3rd ed.). Thousand Oaks, CA: SAGE Publications Ltd.
- Ryan, G. W., & Bernard, H. R. (2003). Techniques to identify themes. *Field Methods*, 15(1), 85-109. doi:10.1177/1525822x02239569
- Schlitz, M., Vieten, C., & Amorok, T. (2007). *Living deeply: The art and science of transformation in everyday life*. Oakland, CA: New Harbinger Publications.
- Schlitz, M., Vieten, C., & Erickson-Freeman, K. (2011). Conscious aging and worldview transformation. *The Journal of Transpersonal Psychology*, 43(2), 223-238.
- Schlitz, M., Vieten, C., & Miller, E. M. (2010). Worldview transformation and the development of social consciousness. *Journal of Consciousness Studies*, 17(7-8), 18-36.
- Schlitz, M., Vieten, C., Miller, E. M., Homer, K., Peterson, K., & Erickson-Freeman, K. (2011). The worldview literacy project: Exploring new capacities for the 21st century student. *New Horizons for Learning Journal*, 9(1). Retrieved from <http://education.jhu.edu/PD/newhorizons/Journals/Winter2011/Schlitz>
- Schultz, K. G. (2013). *Developing an instrument for assessing student biblical worldview in Christian K-12 education*. (Doctoral dissertation). Available from ProQuest Dissertations and Theses (UMI No. 3534997)
- Schultz, K. G., & Swezey, J. A. (2013). A three-dimensional concept of worldview. *Journal of Research on Christian Education*, 22(3), 227-243. doi:10.1080/10656219.2013.850612
- Schutte, K. J. (2008). Fostering an integrated life of purpose in Christian higher education. *Christian Higher Education*, 7(5), 414-433.

- Setran, D. P., & Kiesling, C. A. (2013). *Spiritual formation in emerging adulthood: A practical theology for college and young adult ministry*. Grand Rapids, MI: Baker Publishing Group.
- Setran, D. P., Wilhoit, J. C., Ratcliff, D., Haase, D. T., & Rozema, L. (2010). Spiritual formation goes to college: Class-related “soul projects” in Christian higher education. *Christian Education Journal, Series 3*, 7(2), 401-422.
- Shamp-Ellis, V., & Cross, N. P. (2009). Recalling subject centered enthusiasm: The essence of great teaching. *ICCTE Journal*, 4(2). Retrieved from <http://icctejournal.org/issues/v4i2/v4i2-ellis-cross/>
- Sherr, M., Huff, G., & Curran, M. (2007). Student perceptions of salient indicators of integration of faith and learning (IFL): The Christian vocation model. *Journal of Research on Christian Education*, 16(1), 15-33. doi:10.1080/10656210701381080
- Shimabukuro, G. (2008). Toward a pedagogy grounded in Christian spirituality. *Catholic Education: A Journal of Inquiry & Practice*, 11(4), 505-521. Retrieved from <http://0-search.ebscohost.com/catalog.georgefox.edu/login.aspx?direct=true&db=ehh&AN=32204456&site=ehost-live&scope=site>
- Sire, J. W. (2004). *Naming the elephant: Worldview as a concept*. Downer's Grove, Ill: InterVarsity Press.
- Sire, J. W. (2009). *The universe next door: A basic worldview catalog* (4th ed.). Downer's Grove, Ill: InterVarsity Press.
- Smith, C. (2009). *Souls in transition: The religious and spiritual lives of emerging adults*. New York, N.Y.: Oxford University Press.

- Smith, C., & Denton, M. L. (2005). *Soul searching: The religious and spiritual lives of American teenagers*. New York, NY: Oxford University Press.
- Smith, D. I., & Smith, J. K. A. (Eds.). (2011). *Teaching and Christian practices*. Grand Rapids, MI: Wm. B. Eerdmans Publishing Co.
- Smith, J. K. A. (2009). *Desiring the kingdom: Worship, worldview, and cultural formation (Cultural Liturgies)*. Grand Rapids, MI: Baker Academic.
- Smith, N. L. (2013). (Re)Considering a critical ethnorelative worldview goal and pedagogy for global and biblical demands in Christian higher education. *Christian Scholar's Review*, 42(4), 345-373. Retrieved from <http://search.proquest.com/religion/docview/1372349015/62A941B8581047F4PQ/1?accountid=11085>
- Smithwick, D. J. (2004). *The PEERS booklet analysis package*. Lexington, KY: Nehemiah Institute, Inc.
- Spurgeon, C. H. (2013). *The autobiography of Charles H. Spurgeon: Compiled from his letters, diaries, and records, 1900*. (Vol. 4). London: Forgotten Books (Original work published 1900).
- Stake, R. E. (2010). *Qualitative research: How things work*. New York, NY: The Guilford Press.
- Strauss, A., & Corbin, J. (1994). Grounded theory methodology: An overview. In N. Denzin & Y. Lincoln (Eds.), *Handbook of qualitative research* (pp. 273-285). Thousand Oaks, CA: SAGE.
- Strauss, A., & Corbin, J. (1998). *Basics of qualitative research: Techniques and procedures for developing grounded theory* (2nd ed.). Thousand Oaks, CA: SAGE.
- Summit Pacific College - About. (2015). Retrieved from <https://www.summitpacific.ca/about/>

- Taylor, B. B. (2009). *An altar in the world: A geography of faith*. Toronto, ON: HarperCollins.
- Ter Avest, I., Bertram-Troost, G., & Miedema, S. (2012). Provocative pedagogy; Or youngsters need the brain to challenge worldview formation. *Religious Education*, 107(4), 356-370.
- Thomas, D. (2014). *An exploration of the factors that influence theological students in the area of moral development and decision-making in the charismatic tradition*. (Master's thesis), University of South Africa. Retrieved from <http://uir.unisa.ac.za/handle/10500/18838> Unisa Institutional Repository database.
- Thomas, D. R. (2006). A general inductive approach for analyzing qualitative evaluation data. *American Journal of Evaluation*, 27(2), 237-246.
- Tudge, J. (2000). Theory, method, and analysis in research on the relations between peer collaboration and cognitive development. *Journal of Experimental Education*, 69, 98-112. doi:10.1080/00220970009600651
- Urquhart, C. (2007). The evolving nature of grounded theory method: The case of the information systems discipline. In A. Bryant & K. Charmaz (Eds.), *The SAGE handbook of grounded theory*. Thousand Oaks, CA: SAGE Publications.
- vanSpronsen, R. J. (2011). *Resistance, communication, and community: How did former students from an independent Christian high school experience and understand their resistance to schooling?* (Doctoral dissertation). Retrieved from http://mspace.lib.umanitoba.ca/bitstream/1993/4737/1/vanSpronsen_Rob.pdf
- Walker, K. (2004). Teachers and teacher world-views. *International Education Journal*, 5(3), 433-438.
- Walsh, B. J., & Middleton, J. R. (1984). *The transforming vision: Shaping a Christian worldview*. Downers Grove, Ill: InterVarsity Press.

- Ward, T. (2012). Curriculum: The path to high-worth outcomes. *Common Ground Journal*, 10(1), 42-44.
- Wilkins, S., & Sanford, M. (2009). *Hidden worldviews: Eight cultural stories that shape our lives*. Downers Grove, IL: IVP Academic.
- Wilkie, S. E. (2015). *Living for eternity: A predictive analysis of manifestations of biblical worldview of university freshmen*. (Doctoral dissertation), Liberty University. Retrieved from <http://digitalcommons.liberty.edu/doctoral/996>
- Williams, C. (2002). *Life of the mind: A Christian perspective*. Grand Rapids, MI: Baker Academic.
- Wilson, E. (2000). *Sociobiology: The new synthesis* (25th Anniversary ed.). Cambridge, MA: The Belknap Press of Harvard University Press.
- Wilson, E. O. (1998). *Consilience: The unity of knowledge* (Reprint ed.). New York, NY: Vintage Books.
- Wolf, S. M. (2011). The shaping of a professional worldview in the classroom: A Christian psychology project. *Journal of Psychology and Christianity*, 30(4), 329-338.
- Wolterstorff, N. (1999). *Reason within the bounds of religion*. Grand Rapids, MI: William B. Eerdmans Publishing Company.
- Wolterstorff, N. P. (2002). *Educating for life: Reflections on Christian teaching and learning* (1st ed.). Grand Rapids, MI: Baker Books.
- Wood, M. K. (2008). *A study of the worldview of K-12 Christian school educators*. (Doctoral dissertation), Liberty University, Lynchburg, VA. Retrieved from <http://digitalcommons.liberty.edu/doctoral/113/>

APPENDICES

Appendix A: Interview Guide Questions

Background information:

1. How do you feel about the concept of worldview and how did you become educated on it?
2. How does worldview formation influence the objectives of your teaching ministry?

Pedagogical practice:

3. What things do you do in your instructional design and pedagogical methods to raise worldview awareness in students?
4. What is your pedagogical goal for Christian worldview formation?
5. How does your own worldview and your relationships with students influence their development of a Christian worldview? How do these enhance your teaching effectiveness? Are there any cautions you would recommend?
6. What ways are you assessing college students for worldview awareness and development?

Appendix B: IRB Approval Letter



GEORGE FOX
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Sept. 17, 2015

Mr. Rob Lindermann
Ed.D. Candidate
George Fox University

Dear Mr. Lindermann,

This letter is to inform you that as a representative of the GFU Institutional Review Board I have reviewed your proposal for research investigation entitled "Pedagogy for Christian Worldview Formation." The proposed study meets all ethical requirements for research with human participants. The proposal is approved.

Best wishes as you complete your research investigation.

Sincerely,

A handwritten signature in black ink, appearing to read "Terry Huffman".

Terry Huffman, Ph.D.
Professor of Education

Appendix C: Email Request for Letter of Cooperation – President or Dean

My name is Rob Lindemann and I am a doctoral student at George Fox University in Newberg, Oregon. As part of completing my Ed.D, I am conducting grounded theory research into pedagogical practices for Christian worldview formation. In sum, I am seeking your cooperation by identifying faculty who, in your estimation, are particularly effective at forming Christian worldview in college students.

More specifically, I am inviting you to nominate a faculty member from your institution to participate in about an hour-long personal interview regarding their approaches to teaching that either directly or indirectly aims to form the worldview of college students. The questions will be about their background knowledge of Christian worldview, the factors they take into account when preparing material, their teaching methods, and the assessment strategies they employ. In addition, I will request to examine some institutional materials such as course syllabi, rubrics, and assessment tools or data. The purpose for this is to triangulate the data through two or more methods in order to validate the results.

The objective of this research is to find a theory or model that explains effective teaching for Christian worldview formation. The results of this study will be used for research purposes and may be used for subsequent presentation and/or academic publication.

Information will be analyzed and presented in a confidential fashion so that no institutional personnel or programs will be identified. I affirm to keep any personal information and identities confidential. All research materials (i.e., audio recordings, transcripts, and signed cooperation forms) will be locked in separate, secure locations for a period of no less than three years. I will be the only individual who will have access to these materials. After three years, I will personally destroy all relevant materials and delete the audio recordings.

I thank you for your time and for considering this project. If you choose to nominate and allow access to triangulation data, please be aware that you are making a contribution to educational research. I would happy to share my findings with you when this project is completed. For your convenience I have attached a template letter of cooperation you can copy onto your institution's letterhead, insert the appropriate details, edit wherever you feel appropriate, and email back to me for my research requirements. If you have any questions regarding this research, please contact me at rlindemann@horizon.edu. If you have any additional questions, you may contact my dissertation chair, Dr. Patrick Allen, at pallen@georgefox.edu or (503) 554 – 2858.

Rob Lindemann

Horizon College and Seminary
1303 Jackson Ave.
Saskatoon, SK Canada
S7H 2M9

Dear Rob:

I am happy to cooperate with you in completing dissertation research for your Ed.D with George Fox University. It is my pleasure to nominate _____ from our institution to contact for a personal interview on their teaching strategies for Christian worldview formation. He/she can be reached at (*email address*) or (*phone number*). In addition, you have my permission to access specific institutional materials such as course syllabi, rubrics, and assessment tools or data for the purposes of triangulating data related to your study.

Thank you,

Appendix D: Letter of Consent – Participant

My name is Rob Lindemann and I am a doctoral student at George Fox University in Newberg, Oregon. As part of completing my Ed.D, I am conducting grounded theory research into pedagogical practices for Christian worldview formation. Your president or academic dean has nominated you as a faculty that is particularly effective at forming Christian worldview in college students.

I am inviting you to engage in about an hour-long personal interview regarding your approaches to teaching that either directly or indirectly aims to form the worldview of college students. The questions will be about your background knowledge of Christian worldview, the factors you take into account when preparing material, your teaching methods, and the assessment strategies you employ. In addition, I will request to examine some institutional materials such as course syllabi, rubrics, and assessment tools or data. The purpose for this is to triangulate the data through two (or more) methods in order to validate the results.

The objective of this research is to find a theory or model that explains effective teaching for Christian worldview formation. The results of this study will be used for research purposes and may be used for subsequent presentation and/or academic publication.

The risks associated with this research are minimal. The personal interview questions are general and should not create any distress. Nevertheless, please be aware that your participation is voluntary and you may decline to continue at any time or decline to answer any question at your discretion. The interview can be conducted via Skype connection and will be audio recorded then later transcribed. Information will be analyzed and presented in a confidential fashion so that no individual will be personally identified. I affirm to keep any personal information and identities confidential.

All research materials (i.e., audio recordings, transcripts, and signed consent forms) will be digitally stored to a secure cloud-based service and separate hard drive – all password protected. I will be the only individual who will have access to these materials. After three years, I will personally destroy all relevant materials and delete the audio recordings.

I thank you for your time and for considering this project. If you choose to participate, please be aware that you are making a contribution to educational research. I would happy to share my findings with you when this project is completed. If you have any questions regarding this research, please contact me at rlindemann@horizon.edu. If you have any additional questions, you may contact my dissertation chair, Dr. Patrick Allen, at pallen@georgefox.edu or (503) 554 – 2858.

If you understand the use of this research and consent to participate, please sign below and send this form back to me.

Participant signature: _____

Researcher signature: _____