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EPISTEMOLOGICAL DEVELOPMENT IN PRE-MINISTRY
UNDERGRADUATES ATTENDING CONFSSIONAL
CHRISTIAN LIBERAL ARTS COLLEGES
OR UNIVERSITIES

A Thesis
Presented to
the Faculty of
The Southern Baptist Theological Seminary

In Partial Fulfillment
of the Requirements for the Degree
Doctor of Education

by
Bruce Richard Cannon

December 2015

APPROVAL SHEET

EPISTEMOLOGICAL DEVELOPMENT IN PRE-MINISTRY
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To Sue,

my love, my life, my ministry partner

from the Northwest to the Middle East;

my encouragement in all things impossible.

To Yellowstone Christian College,

the ministry of a lifetime.

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LIST OF ABBREVIATIONS

CSID Center for the Study of Intellectual Development

MID Measure of Intellectual Development

RJM Reflective Judgment Model

TSPI Trentham's Standard Perry Interview Protocol

WWK *Women's Ways of Knowing*

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PREFACE

As a young man I was most interested in spending time in church, resulting in eight years of successful ministry but little academic success. Marriage changed my long-term focus, and I became a real student for the first time. Graduate degrees followed in separate decades. Though the Lord saw it coming, a doctorate was never on my radar.

Yellowstone Christian College colleagues and board members were instrumental in securing time I needed to study constantly and travel frequently from Montana to Louisville. They believe in me, and I am eternally grateful. The SBTS faculty presented a peculiar mix of stressful demands and godly pull toward excellence. They drew more from me than I ever imagined anyone could. I am a product of two institutions of which I am immensely proud to be a small part. I am forever indebted to both.

Two groups will benefit from this journey. First, Yellowstone Christian College will have a more capable leader. Struggles endured as a young man and educational success experienced since those days help me empathize with and encourage many in our college. Second, those seeking the Lord find an encouraging friend to let them know failure does not need to be permanent. Today is a new opportunity to seek the Lord and make godly decisions. Blessings to all with whom I serve.

Bruce Richard Cannon

Billings, Montana

December 2015

CHAPTER 1

INTRODUCTION

Perry's seminal work, *Forms of Ethical and Intellectual Development in the College Years: A Scheme*, was first published in 1968.¹ Many researchers have followed with studies exploring and confirming various aspects of Perry's epistemological student development. As a result of Perry including only two women in his original study of 140 students (and not using any of the women's data), women's epistemological development has been repeatedly addressed, perhaps most notably in *Women's Ways of Knowing*.² Marcia Baxter Magolda also focused on gender-related patterns within her four stages of knowing.³ Based heavily on Perry's work (and to some degree the work of Piaget, Kohlberg, and others), King and Kitchener's seven assumptions and concepts form their Reflective Judgment Model (RJM) of cognitive development in college students.⁴ In

¹William G. Perry, Jr., *Forms of Ethical and Intellectual Development in the College Years: A Scheme* (repr., San Francisco: Jossey-Bass Publishers, 1999). Reprint includes a preface by Perry.

²Mary Field Belenky et al., *Women's Ways of Knowing* (New York: Basic Books, 1986). The ways of knowing include (1) Silence; (2) Received Knowledge: Listening to the voices of others; (3) Subjective Knowledge: The inner voice; (4) Subjective Knowledge: The quest for self; (5) Procedural Knowledge: The voice of reason; (6) Procedural Knowledge: Separate and connected knowing; and (7) Constructed Knowledge: Integrating the voices.

³Marcia Baxter Magolda, *Knowing and Reasoning in College: Gender-Related Patterns in Students' Intellectual Development* (San Francisco: Jossey-Bass Publishers, 1992). Baxter Magolda's patterns of knowing are (1) Absolute Knowing: Receiving and mastering knowledge; (2) Transitional Knowing: Interpersonal and impersonal patterns; (3) Independent Knowing: Embracing and subordinating others' ideas; and (4) Contextual Knowing: Integrating one's own and others' ideas.

⁴Patricia M. King and Karen Strohm Kitchener, *Developing Reflective Judgment* (San Francisco: Jossey-Bass Publishers, 1994). The seven stages include Pre-Reflective Thinking (stages 1-3); Quasi-Reflective Thinking (stages 4-5); and Reflective Thinking (stages 6-7).

addition, for more than twenty years the Perry Scheme has been used to analyze the cognitive development of both male and female students in various cultural settings.⁵

Research Purpose Statement

This research was a key part of extensive research begun by John David Trentham exploring the impact of varying types of undergraduate institutional contexts on pre-ministry students' personal development and maturity.⁶ The specific purpose of this case study was to explore the application of the Perry Scheme to the epistemological development of pre-ministry undergraduates attending confessional Christian liberal arts colleges or universities.⁷ Two separate studies were focused specifically on pre-ministry students in Bible colleges and secular universities. All of these studies were based on Perry's nine positions of student epistemological progression.

To aid this study, and to add value to Trentham's research, data including type of secondary education and college residency issues were explored. In other words, is there a connection involving the student's type of high school background to his or her

⁵Examples of these studies include (1) Myint Swe Khine and Belinda Hayes, "Investigating Women's Ways of Knowing: An Exploratory Study in the UAE," *Issues in Educational Research* 20, no. 2 (2010): 123-38; and (2) multiple studies of the Perry scheme cross-cultural adaptation in China, Li-fang Zhang, "The Perry Scheme: Across Cultures, Across Approaches to the Study of Human Psychology," *Journal of Adult Development* 11, no. 2 (April 2004): 105-17.

⁶John David Trentham, "Epistemological Development in Pre-Ministry Undergraduates: A Cross-Institutional Application of the Perry Scheme" (Ph.D. diss., Southern Baptist Theological Seminary, 2012).

⁷These universities hold a core set of evangelical beliefs governing the entire institution, including its faculty. The core beliefs may be contained within a creed or a statement of faith, and may be highlighted in their mission statement. The evangelical worldview is most likely promoted in every course, but some instructors may not hold to conservative confessional standards. These institutions offer multiple disciplines with a liberal arts core, not just biblical or ministry based courses. Not all students must adhere to the confessional principles or be members of such churches.

cognitive and ethical development? Similarly, is there a connection between college resident life and cognitive-ethical development?

The study used a narrative approach by assessing thirty seniors in ten confessional Christian liberal arts colleges or universities. The students were preselected according to pre-ministry academic pursuits, but were not preselected for gender, race, or socioeconomic status. To replicate Trentham's research, the age limit was twenty-five years, or six months past graduation, whichever comes first.

Practical Benefits of the Study

Guenter Salter lists multiple benefits for a Christian liberal arts education, including being at home in the world of the mind and ideas. He states that Christian education teaches “a person to examine issues rationally, judge them critically, weigh alternatives, and reach intelligent decisions.”⁸ Christian education brings discipline to the mind in the midst of a confused society, preparing “a person for effective and responsible leadership he can speak out with clarity and assurance and chart the course that man must follow.”⁹ Christian liberal arts education also provides a refinement of personal ethics not typically found in secular institutions: “Christian education will teach the student, always on the basis of Scripture, how to make correct moral choices.”¹⁰ On a practical level regarding my research with pre-ministry students, the findings provide students, faculty, advisors, parents, and ministry leaders with a specific resource that

⁸Guenter E. Salter, “The Purpose and Benefit of Christian Liberal Arts Education,” *Balance* 15, no. 9 (May 1996): 3.

⁹Ibid., 4.

¹⁰Salter, “The Purpose and Benefit of Christian Liberal Arts Education,” 3.

lends wisdom and clarification to discussions regarding developing cognition and ethics necessary for men and women pursuing vocational ministry.

Benefits for Parents and Ministries

Benefits of confessional Christian college education include parents having some assurance their children are receiving an education in harmony with values espoused in the home. No student is immune from dissonant thoughts regarding his theological beliefs; however, the opportunities to have a student's core beliefs decimated lessen considerably in a confessional Christian college. Additionally, dormitory life may be a safer environment, especially for those colleges providing non-coed dormitories.

Ministries looking for sound candidates will benefit from graduates who have spent multiple years refining their Christian worldview and honing their abilities within the Christian ethic. This type of education is accomplished by repeatedly confirming the conservative theology, godly values, and biblical ethics of graduates, leading to a strong moral base. According to Gaede, Christian students are "called to embrace certain kinds of diversity and not others we don't avoid those areas; in fact, we seek them out."¹¹ Students will be able to distinguish between positive diversity issues such as gender and race versus a "relativistic conception of diversity or reacting against it with some kind of mindless uniformity [sexual orientation, for example]."¹² Christian liberal arts provides

¹¹Stan Gaede, "The Christian University in a Divided Society," in *The Future of Christian Higher Education*, ed. David S. Dockery and David P. Gushee (Nashville: Broadman and Holman Publishers, 1999), 88.

¹²Ibid.

ministries with well-rounded graduates who are able to deal graciously with the whole of society as well as ministry members.

Variance of Institutional Types

Trentham's research explored the Perry Scheme in relation to pre-ministry students in a cross section of secular, confessional Christian, and Bible colleges and universities. Trentham's study encompassed pre-ministry, evangelical students separate from previous studies based on gender, academic disciplines, or culture. As one researcher within a group of follow-up researchers focusing on these three specific types of institutions, I narrowed and deepened Trentham's research to a group of thirty pre-ministry students solely at confessional Christian liberal arts colleges and universities.

Theoretical Foundations of the Perry Scheme

Perry's 1981 recounting of how the nine positions of epistemological development came about leads the reader to believe Perry stumbled in to the research leading to his scheme. He described the journey as "a Pilgrim's Progress of ways of knowing, complete with Sloughs of Despond."¹³ Twenty years prior, Perry and his colleagues were puzzled by students' seemingly confusing perceptions of faculty members. Perry's initial conclusion regarded differing personality types of students. He then realized students were reinterpreting their lives in these areas. Perry also suggested these reinterpretations followed a logical progression.¹⁴

¹³William G. Perry, Jr., "Cognitive and Ethical Growth: The Making of Meaning," in *The Modern American College*, ed. Arthur W. Chickering and Associates (San Francisco: Jossey-Bass Publishers, 1981), 77.

¹⁴*Ibid.*, 79.

Definitions and explanations are essential to understanding the Perry Scheme. The scheme has nine positions within four major student development progressions: dualism, multiplicity, relativism, and commitment. Not all students begin at the same position, nor do they move at the same rate through the positions.

Dualism encompasses Position 1, the earliest position on Perry's scheme in which a student holds an authority-right-we versus illegitimate-wrong-they cognitive position. Authority is correct and cannot, should not, be questioned. Authority and absolutes are synonymous. Multiplicity, Positions 2, 3, and 4, represent an early-middle position on Perry's scheme in which a student begins to realize not every issue or problem has one answer, an answer provided by the authority. Multiple answers are now available and the authority may not have them all. It is possible the authority is incorrect. Major issues for the student remain unsolved.¹⁵

Relativism, Positions 4 and 5, is marked by legitimate uncertainty manifested by recognition of diverse opinions. These opinions, which others have a right to hold, bump into the former belief that Authority has the right-wrong answers. Finally, dualistic right-wrong thinking becomes subordinate to dualist relativism. Further into the positions, duality is seen only in special cases while relativism becomes the new norm.¹⁶

Commitment, Positions 6, 7, 8, and 9, are the latter positions signaling the foundation of a student's commitment to his core belief, moving from foresight of commitment to initial commitment to developed commitment.¹⁷ The student begins to

¹⁵Perry, "Cognitive and Ethical Growth," 79.

¹⁶Ibid.

¹⁷Perry wrote very little on positions 7, 8, and 9. One significant reason may be that these positions are reached at post-college ages.

understand he needs to make commitments regarding the relativistic world. He also sees implications of commitment and realizes this is an ongoing process throughout his life.

Most students move from one position to the next position, although not all do within a concrete timeframe. There are three designations for lack of student progress or regression: temporizing, escape, and retreat.¹⁸ When a student does not move to a higher position within a year, he is viewed as temporizing. A student is viewed as retreating when he returns to a lower position, often the duality of Position 2. Escape is a deeper reaction or alienation of the learning process.

Philosophical Foundations

Theories of knowledge related to Perry include Dewey's pragmatism and Polanyi's quest for personal commitment to knowledge. Both Dewey and Polanyi have connection to Perry's commitment stages in relation to manipulating new knowledge in order to appropriate that knowledge in to the student's new belief.

Dewey's contextual pragmatism is an "essential feature . . . to maintain the continuity of knowledge with an activity which purposely modifies the environment."¹⁹ This ability is only operational when a person consciously uses it in understanding the issue or circumstance. Dewey asserts that when facing a dilemma within an idea, there must be a connection between the person and the world in which the person lives, as the only means in "straightening out [the] perplexity."²⁰ Dewey also asserted, "the function

¹⁸Perry, "Cognitive and Ethical Growth," 79-80.

¹⁹John Dewey, *Democracy and Education: An Introduction to the Philosophy of Education* (New York: The Macmillan Company, 1923), 400.

²⁰Ibid.

of knowledge is to make one's experience freely available in other experiences."²¹ This connection of knowledge and action is an integral part of the modification of one's environment. Perry's multiplicity, with the move toward relativism, is drawn from Dewey's contextual pragmatism as students grapple with changing information and resultant beliefs.

In relation to Dewey's pragmatism, fallibilism treats all fact as possibly mistaken. Given enough time and effort the mistake will be discovered and new facts or truth will be established.²² Dewey's instrumentalism, or the process of solving problems only through active inquiry, leads the student to actions based on coherence.²³ The student is not be the empty receptacle of Perry's dualism, but rather he is to be functioning and developing within multiplicity and relativity stages.

Perry's personal commitment stages are directly reflected in Polanyi's personal commitment to knowledge.²⁴ The latter stages of Perry reflect commitment only when the student has personally wrestled with, and come to, a definite personal view on a particular subject. Polanyi's personal knowledge is the difference between "stressing the character of our knowledge" and the "universal intent" of that knowledge. In other words, using Polanyi's example of snow being white, saying snow is white is only true if one

²¹Dewey, *Democracy and Education*, 395.

²²Michael Anthony and Warren Benson, *Exploring the History and Philosophy of Christian Education: Principles for the 21st Century* (Grand Rapids: Kregel Publications, 2003), 332.

²³Ibid.

²⁴Michael Polanyi, *Personal Knowledge: Towards a Post-Critical Philosophy* (Chicago: The University of Chicago Press, 1962), 255-57.

actually believes snow is white.²⁵ Speaking of the impossibility of impersonally believing a statement to be true or false, Polanyi stated, “We might have a better chance of achieving the purpose of epistemology reflection if we asked ourselves instead why we do believe certain statements of fact, or why we believe certain classes of statements, such as those of science.”²⁶ The Polanyi-type commitment to any such statement is quite similar to the Perry positions involving commitment.

Theological Foundations

Theoretical foundations of epistemological development are rooted within solid theological foundations. God created man with the capacity to think for himself. He was charged with placing appropriate names on God’s newly minted creations. He was also given ability to think about his choices with God’s instructions regarding the forbidden tree (Gen 1–3). Man was also created with *imago Dei*, the image of God (Gen 1:26–27). Kim asserts that “according to biblical anthropology, the intellect is viewed as a rational property or a thinking agent of the soul.”²⁷ Paul’s statements support this idea about childish thinking versus adulthood thought patterns (1 Cor 13:11). Luke speaks of Jesus increasing in wisdom as he grew (Luke 2:52).

Kim contends the use of both relational and rational collection, or a “dual knowledge theory,” is necessary for Christian formation.²⁸ The Bible clearly teaches man

²⁵Polanyi, *Personal Knowledge*, 255.

²⁶*Ibid.*, 256.

²⁷Jonathan H. Kim, “Intellectual Development and Christian Formation,” in *Christian Formation: Integrating Theology and Human Development*, ed. James R. Estep and Jonathan H. Kim (Nashville: B&H Publishing, 2010), 79.

²⁸*Ibid.*, 87-89.

was made in the image of God as a relational being: “It is not good for man to be alone. I will make a helper suitable for him” (Gen 2:18).²⁹ God himself walked in the garden and fellowshiped with man in the garden (Gen 3:8).

Man was also created with the ability to think and reason. Instructions were given to not eat of a specific tree in the midst of many trees in the garden (Gen 1:16–17). Man was allowed by God to name the first living creatures (Gen 1:19–20). He was tasked with the care of the garden, indicating a need for a decision making process on man’s part (Gen 2:15). The implications are clear from Scripture: theological foundations demonstrate an integral part of God’s plan for his relationship to man include man’s cognitive development.

These relational and rational implications are solidified within the life-narrative of Jesus. Luke succinctly states Jesus “grew in wisdom and stature, finding favor with God and man” (Luke 2:52). His advancing levels of cognition clearly astonished the scholars as they were “amazed” not only at his answers, but his understanding (Luke 2:47). In Mathew 7:28-29, Jesus also amazed the common man with his answers demonstrating great authority, unlike the teachers of the law. It appears he connected cognitively on two separate levels according to his audience. Jesus may have used technical language to dialogue with the learned men while using a more common approach with local residents.

²⁹All Scripture quotations are taken from the New International Version.

Delimitations of Proposed Research

This study was conducted using ten confessional Christian liberal arts colleges or universities. The group studied included thirty seniors from multiple confessional Christian liberal arts colleges and universities who are self-declared pre-ministry students. As with the Trentham study, students were a convenience sampling according to traditional college age and declared pre-ministry focus, but were not be preselected for gender, race, or socioeconomic background. Limiting the group to the traditional age enabled a more focused analysis along the lines of Perry's original research and Trentham's recent work.

Research Questions

To narrow and deepen the focus of Trentham's research, thirty students in their senior year at ten confessional Christian liberal arts colleges and universities were interviewed using Trentham's Interview Protocol (appendix 4) to find answers to the following research questions.

1. What is the relationship between pre-ministry undergraduates of confessional Christian liberal arts universities to Perry's positions of intellectual and ethical development?
2. What are the distinctive patterns, if any, of pre-ministry undergraduates regarding intellectual and ethical choices compared to corresponding Perry positions of intellectual and ethical development in Trentham's previous research?
3. What is the relationship, if any, of pre-ministry undergraduates regarding their corresponding Perry position of intellectual and ethical development for those living in college dormitory settings?
4. What is the relationship, if any, of pre-ministry undergraduates regarding their corresponding Perry position of intellectual and ethical development for those who attended public schools?

Definition of Research Population

The research population of pre-ministry undergraduates was a convenience sample of thirty students in their senior year or within six months after graduation from a purposefully selected group of confessional Christian liberal arts universities. Trentham's research was based on Perry's original work with students at Harvard and Radcliffe. Trentham's study used three groups of ten pre-ministry students each representing confessional Christian universities, secular universities, and Bible colleges, respectively. The thirty students in my study represented pre-ministry, undergraduates studying solely at confessional Christian liberal arts colleges and universities.

Description of Research Samples and Sampling Technique

The research population was interviewed during the academic year using Skype. The research sample was a semi-structured, single stage, person to person interview.³⁰

Delimitations of the Samples as a Result of the Sampling Technique

For continuity with Trentham's research, this replication study used traditional age 20-25 year old, pre-ministry undergraduates during their senior year in confessional Christian liberal arts colleges and universities. The procedure used a convenience sample from purposely selected confessional colleges and universities.³¹ The study used students

³⁰John W. Creswell, *Research Design: Quantitative, Qualitative, and Mixed Methods Approaches* (Thousand Oaks, CA: Sage, 2014), 193.

³¹Ibid., 189.

who indicated their plan to enroll in seminary or related field of study immediately after college graduation. Those who indicated planned, immediate service in the mission field were included.

Limitations of Generalization of Research Findings

This research is limited by the following:

1. This study provides limited understanding from only confessional Christian liberal arts universities, and from only pre-ministry graduating, or recently graduated students.
2. The sample size of thirty students taken from ten confessional Christian liberal arts colleges and universities cannot make any conclusive statements regarding the whole of pre-ministry Christian college students across many institutions.
3. The quality of the pre-ministry students' high school achievement was not studied, therefore no conclusive statements regarding the academic background can be made. The only academic qualification required was entrance to the confessional Christian liberal arts college or university by way of ACT, SAT, or ACT Compass scores.³²

Terminology

Commitment. The latter stages of Perry's epistemological scale. The student's solidly held and defensible position after considering all available knowledge in conjunction with his worldview.³³

Confessional Christian college or university. An institution holding a core set of evangelical beliefs governing the institution, often contained within a statement of

³²The ACT Compass is a national exam used when traditional SAT or ACT scores are not available. Most likely scenarios include students who neglected the SAT or ACT while in high school, or those whose three-year time limit of score viability has been exhausted. The ACT Compass full battery price is less than \$15, making it an economical alternative to the standard exams. Minimum reading, writing, and math scores are set by individual institutions in the same manner as the SAT or full ACT.

³³Perry, *Forms of Ethical and Intellectual Development in the College Years*, 149-52.

faith or creed.³⁴ Evangelical worldview is promoted in every course. The institution offers multiple disciplines with a liberal arts core, not just biblical or ministry based courses. Not all students must adhere to confessional principles or attend such churches.

Dualism. The early Perry stage involving a sharp contrast between wholly right and wrong, good and bad; based on a student's total dependence on authority figures.³⁵

Ethics, biblical. "The unitary character of truth and the universal validity of moral norms . . . an insistence upon universal criteria and standards."³⁶ Biblical ethics is based on the Divine moral will.

Ethics, secular. The study of the "inner process as determined by the outer conditions or as changing these outer conditions, and the outward behavior or institution as determined by the inner purpose, or as affecting the inner life."³⁷ Secular ethics is based on personal or societal views.

Evangelical. Multidenominational designation for institutions and Christians who believe in the absolute authority of the Bible, salvation by grace alone, and evangelism by personal proclamation based on the redemptive work of Christ.³⁸

³⁴The institutions represented in this study include those that require their faculty (or at least their religion/Bible/theology faculty) to sign a confessional statement. Several of the institutions listed may not have such a stringent requirement. If not, the institution at the minimum is governed by a Christ-centered worldview as demonstrated by their mission statement and denominational affiliation.

³⁵Perry, *Forms of Ethical and Intellectual Development in the College Years*, 81.

³⁶Carl F. H. Henry, *Christian Personal Ethics* (Grand Rapids: Wm. B. Eerdmans Publishing Co., 1957), 145.

³⁷John Dewey, *Ethics* (New York: Henry Holt and Company, 1909), 3.

³⁸George M. Mardsen, *Understanding Fundamentalism and Evangelicalism* (Grand Rapids: William B. Eerdmans, 1991), 5. In explaining his definition, Mardsen says, "Evangelicalism', however, does not refer simply to a broad grouping of Christians who happen to believe some of the same doctrines; it can also mean a self-conscious interdenominational movement, with leaders, publications, and institutions with which people from many sub groups identify."

Liberal arts. Academic studies intended to develop general intellectual abilities as opposed to occupational skills; focused on broad skills in thinking and writing with required courses such as religion, philosophy, literature, and sociology.³⁹

Multiplicity. Perry's second major area within the nine positions. The realization that not all authority is ultimate authority; multiple points of view which cannot be judged since many points of view and opinion are equally correct.⁴⁰

Perry Scheme. The common term for William G. Perry, Jr.'s seminal 1968 work, *Forms of Ethical and Intellectual Development in the College Years: A Scheme*. In 1958, 1962, and 1963, Perry studied 140 Harvard and Radcliff students to determine their cognitive process. He developed a nine-position scheme to reflect his findings.⁴¹

Positions. Perry's nine-stage mode of student development related to knowledge and authority at any given time in the student's life.⁴²

Relativity. (Distinct from Perry's *relativism* below.) Only plausible stance in face of openness to various claims of truth; the only absolute is absolute freedom to be open to everything.⁴³

³⁹Fernando Lozano, "The Meaning of a Liberal Arts Education," Wheaton College website, accessed October 10, 2015, <http://tlc.pomona.edu/2011/04/19/the-meaning-of-a-liberal-arts-education>. Lozano listed six ideas defining a liberal arts education: (1) teaches students how to think, (2) teaches students how to learn, (3) teaches students how to see things whole, (4) teaches students to embrace their wisdom and faith, (5) teaches students how to be better teachers, and (6) teaches students how to contribute to their own happiness.

⁴⁰Perry, *Forms of Ethical and Intellectual Development in the College Years*, 81.

⁴¹*Ibid.*, 16-17.

⁴²*Ibid.*, 287.

⁴³Allan Bloom, *The Closing of the American Mind* (New York: Simon and Schuster, 1987), 26-28.

Relativism. (Distinct from Allan Bloom’s definition above.) Perry’s third major section within the nine positions. The student understands a plurality of points of view, including interpretations, frames of reference, value systems, and contingencies” that allow for “analysis, comparison, and evaluation.”⁴⁴

Methodological Design

The data collection included a semi-structured, one hour, one-on-one separate interview of each student. All interviews were recorded and personally transcribed, using the Trentham interview format to more easily relate to his research. Each interviewee was provided the same basic questions. I also recorded thoughts and reactions to the general tenor and tone of the interviewees. The interviews were scored using the Center for the Study of Intellectual Development’s (CSID) Measure of Intellectual Development (MID).⁴⁵ I also independently analyzed the interviews to glean additional information pertinent to the specific focus of this thesis.

Instrumentation

Trentham’s Interview Protocol was adapted to bring consistency (appendix 4).⁴⁶ The instrumentation consists of a personal interview of pre-ministry college students within six months either side of graduation.

⁴⁴Perry, *Forms of Ethical and Intellectual Development in the College Years*, 95-97.

⁴⁵The CSID and MID are explained in appendix 5.

⁴⁶Trentham, “Epistemological Development in Pre-Ministry Undergraduates,” 223.

Research Assumptions

1. It was assumed that each interviewee was accurate in responses, and conveyed not only specific words to questions, but did their best to provide explanation and thoughts.
2. It was assumed the CSID interpretation of MID ratings was unbiased and scholarly in its application, and that they in no way interfered with the processing of the information. The methodology for the proposed scoring of instruments is found in appendix 5.⁴⁷
3. It was assumed that the transcriptions were accurate for each of the interviewees. It was also assumed the transcriptions will remain confidential.

Research Competencies to Conduct the Study

I have interviewing skills due to extensive experience interviewing students, faculty, and coaches. As a former dean of academics, I have the ability to complete a series of tasks necessary for the successful completion of semester responsibilities, including devising syllabi appropriate for specific course levels. As a college instructor, I have knowledge of cognitive distinctions of students in various levels.

I am responsible for development of new degrees and related curriculum, demonstrating project management skills. I have an understanding of epistemological and developmental theories, especially pertaining to areas dealing with college students, as well as an understanding of the theological issues with which pre-ministry students grapple. Finally, having master's degrees in divinity and education aided me in understanding the epistemological progress as well as areas of theological struggle of understanding where the Perry Scheme progress may bring confusion and uncertainty.

⁴⁷Measure of Intellectual Development (MID) is an essay style research instrument used by William S. Moore and the Center for the Study of Intellectual Development (CSID). The system is nearly identical to the Perry Scheme score procedure. The Perry interview protocol and the MID are nearly identical. MID ratings are basically the Perry positions one through five. The research is a deepening of Trentham's work; the protocols and scoring procedures are identical to Trentham's methodology.

CHAPTER 2

PRECEDENT LITERATURE

It may be easy to overlook William Perry's full title when discussing college student development. Perry's work is not *Forms of Intellectual Development in the College Years*, rather *Forms of Ethical and Intellectual Development in the College Years*. Education, according to Perry, includes ethical choices during the intellectual pursuit. He wrote in later years of two worlds: one of moral absolutes and one of relative contingent ethics.

The times seem to have made only more vivid the distinction we find in our students' reports between commitment in an all-or-none world of moral absolutes and that more difficult and considered commitment in a relative world of contingent ethics. Self and integrity in these two worlds are very different, and an awareness of how the differences work is surely helpful in sensing how differently people see the issues of today and invest their care in them.¹

As students commit to one world or the other, pre-ministry undergraduates in confessional Christian liberal arts universities need to land squarely in the realm of moral absolutes and the ensuing non-relative, non-contingent ethical choices. In other words, pre-ministry students in confessional Christian universities should not study for knowledge alone, but rather for the solid, core-value biblical moral reasoning resultant from that knowledge.

¹William G. Perry, Jr., *Forms of Ethical and Intellectual Development in the College Years* (San Francisco: Jossey-Bass Publishers, 1999), xlv.

Lewis Joseph Sherrill wrote on Christian education and ethics: “Authentic education consists of its impact upon people. And that impact on persons grows out of the active body of convictions held.”² Fowler reflects on adulthood convictions:

Building on all that came before [is] an operational commitment to principles of justice that can claim universal validity. Principles, of course are different from rules, customs or laws. Principles, we might say, are the abstract, generalizable guidelines and tests by which particular actions, laws or social policies may be made or evaluated. The golden rule in its various forms is such a principle.³

Pre-ministry undergraduates need to be aware of the educational aim to produce ethical behavior. Education’s proper application includes decisions regarding ethical behavior as a natural outcome. Education without a solid ethical foundation is education misguided.

Early-Hebrew Education

Delbanco writes of the educational heritage in early-Hebrew culture: “This idea that the aim of education includes fostering ethical as well as analytical intelligence long predates the churches from which the early American colleges arose, and is, of course, much older than Christianity itself.”⁴ Education in the early Hebrew period was a serious matter. Families and society viewed the combination of Scripture and education as inseparable. Anthony and Benson, writing on Hebrew education, reflect on this point:

[God] gave us written instructions, known as the Torah, or Old Testament Law. Later, He commissioned priests, judges, and prophets with the task of instructing His people with the *proper application* [ethics] *of those laws to everyday life*. Eventually this task was given to synagogue leaders such as rabbis and scribes. After the Jews returned from exile, they established schools for the education of

²Lewis Joseph Sherrill, *The Rise of Christian Education* (New York: Macmillan Company, 1950), 2.

³James W. Fowler, *Stages of Faith: The Psychology of Human Development and the Quest for Meaning* (New York: Harper Collins Publishers, 1981), 83.

⁴Andrew Delbanco, *College: What It Was, Is, and Should Be* (Princeton, NJ: Princeton University Press, 2012), 44.

children. Tracing these early origins of Hebrew education provides a glimpse into *God's original design for education* [italics added].⁵

C. B. Eavey continues the same thought regarding Hebrew educational ideals:

“The comprehensive aim of education was righteousness, which consisted of three subsidiary overlapping aims: happiness, good character [ethics], and fellowship with God.”⁶ Eavey continued with a statement directly relating education to ethics, foreshadowing Anthony and Benson’s words above: “It was also the duty of the priests to teach the people how to live in relation to one another That is, they instructed the people in respect to their ethical living For God’s chosen people ethical rules, civil law and duty to God were all bound into one.”⁷

Early-America Education

Religious education is not a new phenomenon; in fact, it has an incredibly rich Hebrew and English history in America. Protestants settling on the eastern shores of America believed in the Gospel for salvation. Their children’s early education included the reading of Scripture. Scripture not only introduced them to salvific requirements, but was the bedrock textbook. Grammar schools, using the Scriptures in their original languages and utilizing ancient authors, prepared students to enter college. An unmistakable component of the educational process was Christian living.⁸ Only biblically faithful teachers were employed. Eavey captures the essence of Colonial early education:

⁵Michael Anthony and Warren Benson, *Exploring the History and Philosophy of Christian Education: Principles for the 21st Century* (Grand Rapids: Kregel Publications, 2003), 17.

⁶C. B. Eavey, *History of Christian Education* (Chicago: Moody Press, 1964), 49.

⁷*Ibid.*, 55-56.

⁸*Ibid.*, 196.

“Here they built their . . . foundations on the firm foundation of a general education that was fundamentally Christian.”⁹

Religious Foundations of Higher Education

Higher education in colonial America was important as well. Nearly every college was founded on religious principles. Harvard was founded in 1636, in part to supply the church with pastors.¹⁰ Harvard’s entrance inscription was *Pro Christo et Ecclesia* (for Christ and the Church).¹¹ Yale, formed in 1701, was governed by eleven ministers; Baptists founded Brown in 1765.¹² Table 1 further represents the religious influence in early-America education philosophy.¹³

Table 1. Colonial-era universities

Colony	College	Year	Religious Affiliation
MA	Harvard	1636	Puritan/Congregational
VA	William and Mary	1693	Anglican
CT	Yale	1701	Congregational
NJ	Princeton	1746	New Light Presbyterian
NY	Columbia	1754	Essentially Anglican
PA	Pennsylvania	1755	Primarily Secular
RI	Brown	1765	Baptist
NJ	Rutgers	1766	Dutch Reformed
NH	Dartmouth	1769	New Light Congregational

⁹Eavey, *History of Christian Education*, 189.

¹⁰James E. Reed and Ronnie Prevost, *A History of Christian Education* (Nashville: Broadman and Holman, 1993), 298.

¹¹Eavey, *A History of Christian Education*, 197.

¹²*Ibid.*, 197-98.

¹³*Ibid.*, 189-97.

Delbanco confirms the religious origins of early colleges, although cynically summarizing them: they were seen as “retreats for scholars of divinity whose duties included celebrating mass for the soul of the benefactor who had endowed the college and thereby spared them from menial work.”¹⁴ Delbanco also suggests many new colleges were founded like new churches when “one faction, out of disaffection with its brethren, or because of the inconvenience or expense of travel, broke away and formed a new congregation in a new neighborhood.”¹⁵ Schisms including views of orthodoxy, lack of grace, coldness in methodology, and slavery were defining factors.¹⁶

The Enlightenment

In the early nineteenth century, Christian higher education gave way to human reason as the Enlightenment worked against Christianity envisioned by the Puritans. However, reason was not foreign to the educational structure of the earliest colleges. Study of logic, ethics, arithmetic, and geometry was normative, with fewer than half of Harvard’s early graduates entering the ministry.¹⁷ Humanities, social science, and natural sciences became the tri-fold representation of understanding the Creator and creation.¹⁸

Eavey details “two interrelated, far-reaching effects” as a result of the Enlightenment: “the separation of church and state; the taking of education from the

¹⁴Delbanco, *College*, 37.

¹⁵Ibid., 68.

¹⁶Ibid.

¹⁷Ibid., 39.

¹⁸Ibid., 41.

church and secularizing it.”¹⁹ This resulted in a distinct move from biblically-based theology and classical languages toward science and modern languages. John Locke, among others, abandoned belief for the dependence on reason. The University of Virginia, founded in 1825 by Thomas Jefferson, was a direct result and move against religious colleges such as Yale and Princeton.²⁰ With its faculty-issued Yale Report in 1828 responding to Jeffersonian thought, Yale began its move away from religious education to scientific studies.²¹ William Ringenberg summarizes the movement away from Puritan foundations of American education:

Puritans had grounded their thinking in special revelation and had worked to turn special revelation into a framework for all of learning. The educators grounded their thinking in the Enlightenment and worked to give special revelation a place in that framework Where Puritan education had proceeded from a Christian perspective which sought to dominate the shape, purposes, and structure of learning, leaders in America’s Christian colleges after the Revolution allowed truths of the didactic Enlightenment to lay out the shape, purposes, and structure of knowledge, within which they were delighted to find a place for Christianity.²²

The Concept of *In loco parentis*

Delbanco asserts that “college as we know it is fundamentally an English idea.”²³ Within that system, *in loco parentis* (the right to act as parent) was in central

¹⁹Eavey, *History of Christian Education*, 205.

²⁰Reed and Prevost, *A History of Christian Education*, 301.

²¹Ibid. Reed and Prevost state the Yale Report demonstrated the staid nature of the pre-Civil War American higher education. The report argued that study of ancient languages was the only proper college system, and that scientific studies were not necessary in undergraduate colleges. John S. Brubacher and Rudy Willis, *Higher Education in Transition* (New York: Harper and Row Publishers, 1958), 104.

²²William C. Ringenberg, *The Christian College: A History of Protestant Higher Education in America* (Grand Rapids: William B. Eerdmans Publishing Company, 1984), 14.

²³Delbanco, *College*, 37.

concept.²⁴ Parental duty included teaching and training of children to become productive members of society. Discipline was integral; the classroom could not be a safe haven from such correction. Teachers were able to act in tandem with parents regarding discipline and obedience; hence teachers were granted *in loco parentis*, or the right to act as the parent.²⁵

Departing from English educational heritage, student rights in the American system evolved as *in loco parentis* diminished. Delbanco states that students demand two things: autonomy for their actions and unconditional protection of the college for the consequences of that autonomy. As a result “college authorities have given up their role of acting *in loco parentis* [but] still tend to get blamed for not parentally stepping in.”²⁶

Social Changes

As the new society developed, several circumstances in the social realm also changed the educational foundations of Christian education. Immigrants left behind family and religious ties, living an unrestrained lifestyle in the new land. Self-reliance in the new world led to freedom from religious mandates. Revolution-era leaders believed in freedom of conscience and separation of church and state. Finally, there was an eventual slide to freedom from religion, especially within educational mandates.

²⁴The legal doctrine is of *de facto* surrogate parental rights without parents giving up those rights. A prime example is the relationship of teachers and students. Regarding education, teachers became the *de facto* parent in the classroom context.

²⁵Michael Neel and Leslie Ennis, “The Student, Technology and *in Loco Parentis*: Legal Challenges in the Digital Age,” *International Journal of Technology, Knowledge & Society* 8, no. 1 (2012): 124.

²⁶Delbanco, *College*, 20.

Christian education, slowly removed from public education, was relegated to the churches.

Changes in original and early American views of education, based either in the English ideal or Puritan motivation, do not stand in isolation to current educational thought. Modern cognitive theory includes philosophies stemming from multiple centuries and various backgrounds. The next section connects four of these theorists.

Cognitive Theorists

Many cognitive and ethical theories have arisen over the centuries. Four of particular interest to the study of pre-ministry undergraduates in confessional Christian liberal arts universities include Thomas Aquinas, John Locke, Jean Piaget, and William Perry.

Thomas Aquinas

Thomas Aquinas postulated that the senses produce every idea formulated in the mind; sensory intake is the most important matter in the learning process. Aquinas also suggested a unity of all knowledge with the kinship of all parts of reality.²⁷ Biblically, this idea relates to how man knows what he knows about God. From the biblical view, the senses take in the wonders of God and form an intellectual picture of God. The skies proclaim the God's glory, which men see readily (Ps 19:1). Men experienced the God-provided weather patterns that produce the crops (Ps 97:6). The

²⁷Rosella Linskie, *The Learning Process: Theory and Practice* (Lanham, MD: University Press of America), 123.

senses as a whole are filled with enough knowledge to know of God's majesty (Acts 14:17).²⁸

Frame continues the discussion by outlining the doctrine of the knowledge of God, combining academic and spiritual pursuits: what do believers know, on what basis do believers know it, and how do believers know. Frame writes, "One could argue that the doctrine of the knowledge of God ought to be a confessional Christian college student's first introduction to systematic theology."²⁹ Education for pre-ministry undergraduates must, by its very nature, include their intellectual and ethical development stemming from the knowledge of God.

Simply using intellect to know is not enough. Man must use this information to make ethical decisions regarding God and his requirements. According to Anthony, "The purpose of education is to aid individuals to develop their abilities and capacities to become cultural change agents, not to merely affirm the prevailing culture. Educational effectiveness is measured by the student's ability to think, question, produce, and act."³⁰ This ability to connect thinking with conviction is Perry's point exactly. Students must move from being open receptacles of professorial information dumping to become thinkers able to diagnose information, come to new, solid conclusions, and skilled

²⁸Michael J. Anthony, "The Nature of Theological Education," in *A Theology of Christian Education*, ed. James R. Estep, Jr., Michael J. Anthony, and Gregg R. Allison (Nashville: B & H Publishing Group, 2008), 9. Aquinas was Catholic; Catholics rely more heavily on natural theology than Protestants. However, Catholics do not negate the priority of special revelation in Scripture. Aquinas is used to demonstrate the point that past theologians connect the knowledge of God to educational principles. Evangelicals believe this connection is acceptable, but incomplete due to sin's marring man's understanding of God. At that point of sin's mar, special revelation became necessary.

²⁹John M. Frame, *The Doctrine of the Knowledge of God* (Phillipsburg, NJ: P & R Publishing, 1987), 4.

³⁰Anthony, "The Nature of Theology and Education," 19.

defenders of those conclusions. This process is done from the basis of the students' ethical and moral worldview, albeit perhaps changing as they progress in their educational journey. Intellect and ethics develop best simultaneously.

John Frame makes a valid point from Romans 1:18-21, referring to those who separate intellectual and ethical: "But Scripture, as I understand it, does not permit such a sharp dichotomy between the ethical and epistemological. Knowledge, as we have seen it, is a part of life, and therefore must be achieved and maintained in a way that honors God. That is to say that there is an ethics of knowledge."³¹ Knowledge for knowledge's sake alone results in an underdeveloped ethical foundation. This lack of ethical development is the result of educational institutions that profess effectiveness when students can recall information and conform their behavior to the cultural expectations.³²

As pre-ministry undergraduates in confessional Christian liberal arts universities move through the Perry scheme stages of ethical and intellectual development, the commitment to a specific viewpoint "can be viewed as initiating the 'ethical development' identified in the title of Perry's scheme."³³ There is a commitment to a set of values or ethical standards to which students adhere. This commitment to values and ethics is an important biblical goal of education.

From Aquinas also came the secular epistemological theory related to synthesis of information, rather than the elementist-type compartmentalizing of

³¹Frame, *The Doctrine of the Knowledge of God*, 57.

³²Anthony, "The Nature of Theology and Education," 19.

³³Nancy J. Evans, Deanna S. Forney, and Florence Guido-DiBrito, eds., *Student Development in College: Theory, Research, and Practice* (San Francisco: Jossey-Bass Publishers, 1998), 133.

information.³⁴ Integrated curriculum was devised, focusing on the sum of the parts rather than the individual parts.³⁵ Instructors could lead students to think about the whole of something, making judgments based on all the components. Ethical behavior, again, is one result of sound judgment based on all information integrated and seriously considered in its totality.

John Locke

John Locke provided the concept of *tabula rasa*, or blank slate of the mind.³⁶ He taught that the mind was empty; innate knowledge within society or between societies was not possible. For Locke, an ethical standard across cultures and time could not be possible. Again, referring to Romans 1:20, *tabula rasa* with its lack of cross-cultural ethics is not possible. Frame states, “God makes himself known through His mighty works, both in nature and in history. . . . It also involves knowing his authority, knowing that he is the ultimate authority and knowing what He commands us to do.”³⁷ Instead of a blank-slate, people learn from God’s creation and understand him. In fact, they know him innately because of God’s revelation (Rom 1:19-20). Contradicting Locke’s assertion, a God-based ethic spanning generations and cultures is present due to revelation.

Locke further proposed that the mind, being a blank slate, takes in new experiences, then compares, categorizes, generalizes, and discriminates. The theory

³⁴Linskie, *The Learning Process*, 136-40.

³⁵Ibid.

³⁶James Estep, Jr., “Christian Anthropology,” in *Christian Formation: Integrating Theology and Human Development*, ed. James R. Estep and Jonathan H. Kim (Nashville: B&H Publishing, 2010), 25.

³⁷Frame, *The Doctrine of the Knowledge of God*, 41.

opened two new doors to the theological and epistemological bent of people. Locke postulated that at their birth, the “human organism is morally neutral and psychologically passive.”³⁸ Human development depended not on God’s placement of the innate nature of the *imago Dei* and corresponding ethical values, but on the educational institution’s ability to change the student’s environment. God was taken from the center and placed outside the epistemological realm.³⁹

Scripture is clear regarding the *imago Dei* within humanity. Men and women were created with God’s image and likeness (Gen 1:26-28). Man cannot be morally neutral or psychologically passive, such as Locke’s *tabula rasa*. According to Estep, “We are human because we are made in the image of God. We are the bearers of God’s image, the *imago Dei*. . . . The *imago Dei* is the definitive mark of our Maker.”⁴⁰ After the fall of man it is doubly impossible for man to be morally neutral. Man is bent on sin due to his inherited sin nature; he is in no way anything but morally guilty and totally depraved.

The *imago Dei* also brings the implication of corresponding ethical behavior. Man is unique in creation in that he shares no personal relationship with angels or animals. His reasoning skills have no comparison in the rest of creation. Man alone is in the image of God. Estep states, “Humanity demands a baseline level of mutual respect and ethical treatment—regardless of social class, status, or stature – simply because we are God’s image-bearers.”⁴¹

³⁸Linskie, *The Learning Process*, 124.

³⁹Ibid. Locke’s second theory: heredity took a back seat to nature, allowing students to learn regardless of physical heritage. With this thought, modifications of student learning environments became an important part of the educational process.

⁴⁰Estep, “Christian Anthropology,” 11.

Jean Piaget

Others followed as newer student epistemological theories described movement from simple to complex cognitive structures. Piaget called the structure *schemata*.⁴² Piaget noted the importance of both neurological maturation in cognitive development as well as the significant role of the environment providing the student's experience, a view similar to Locke's.⁴³ Piaget's cognitive structural theory had three components: (1) students move through concrete stages, (2) these stages are hierarchal and cannot be reversed once attained (not universally accepted by other theorists), and (3) attainment of stages come through assimilation (integrating new information) or accommodation (modifying existing thoughts to incorporate dissonant thoughts) of new information presented to the student. While never addressing at great length the specific issue of ethical behavior, Piaget's schemata naturally leads to the making of ethical choices as information is accommodated and assimilated.

At least to some degree, Piaget mimics the biblical pattern of spiritual epistemology. There are definite stages in a person's salvation experience. Acts 8 and 16 show a concrete pattern with the Ethiopian eunuch, Lydia, and the Philippian jailer: (1) lack of knowledge regarding salvation, (2) hearing of the salvation message, (3) reception of the salvation message, (4) entrance into salvation itself, and (5) obedience attached to salvation. The stages cannot be reversed or inverted. Finally, in the Piaget pattern,

⁴¹Estep, "Christian Anthropology," 16.

⁴²Jean Piaget, *The Origins of Intelligence in Children* (New York: International Universities Press, 1952), 7. See also Evans, *Student Development in College*, 124.

⁴³Evans, *Student Development in College*, 25.

salvation comes through assimilation of new information and accommodation in modifying dissonant thoughts about sin and salvation.

William G. Perry, Jr.

Perry's work with college students built on Piaget's theory of cognition in children. Piaget and Perry were cognitive structural theorists. Both focused on "how students think, reason, and make meaning of their experiences."⁴⁴ Hofer connects foundational research of individual learning methodology to both Piaget's "attention to 'genetic epistemology' and to Perry's original work on the epistemological development of college students."⁴⁵

Various studies based on Piaget or Perry have confirmed the same-order stages of development, although the age of students and speed of progression may vary. Studies also found that assimilation and accommodation drives the progression of developmental stages.⁴⁶ In addition, the epistemology of personally knowing God is found in multiple ages and in varying speeds of understanding. It is also the assimilation and accommodation of that information that drives one to his personal knowledge of God and resulting ethical behaviors.

While this paper affirms the validity of Perry's cognitive stages, there is a departure regarding the formation of ethical values. Students move from one belief to another based on the intake of new information and ways of interpreting data (trusting

⁴⁴Evans, *Student Development in College*, 124.

⁴⁵Barbara K. Hofer, "Personal Epistemology as a Psychological and Educational Construct: An Introduction," in *Personal Epistemology: The Psychology of Beliefs about Knowledge and Knowing*, ed. Barbara K. Hofer and Paul R. Pintrich (Mahwah, NJ: Lawrence Erlbaum Associates, Publishers, 2002), 4.

⁴⁶Evans, *Student Development in College*, 124.

authority or not, for example). However, Perry provides solid foundation for neither the shape of the student's knowledge of God nor the ethical foundations themselves. The development of students in the Perry scheme stands on the relative contingent choices based on information garnered from professors, peers, and the general college experience, not on the moral absolutes authored by biblical writers. Trentham is correct in his evaluation of this outcome:

Perry's presuppositions identify the goal of human development as necessarily self-focused and centered in naturalistic life (*bios*) rather than eternal life (*zoe*). Thus, a fundamental departure with Perry is in order. From a biblical perspective, utilization of Perry's theory as an interpretive map for describing epistemology development must be 'critically interactive' rather than 'wholly integrative.'⁴⁷

Perry is helpful in understanding student epistemological development, but the scheme has its limits regarding the formation of correct knowledge of God and its direct descendent, ethical behavior.

The question arises then, how is the pre-ministry undergraduate affected by theories of learning based on Aquinas, Locke, Piaget, Perry, and others? The student's view of the sensory intake and synthesis of information from Aquinas, the blank slate (or not) of Locke, Piaget's stage components, and Perry's stages of epistemological development will play a key role in the student's ability to navigate his studies. The student will not simply intake information for the exclusionary purpose of gaining more knowledge, but will naturally adopt a set of ethics based on the integrated information. Even more so, the answer to how students are affected may depend on the spiritual and scriptural foundation of the individual student. In other words, his epistemological-

⁴⁷John David Trentham, "Epistemological Development in Pre-Ministry Undergraduates: A Cross-Institutional Application of the Perry Scheme" (Ph.D. diss., The Southern Baptist Theological Seminary, 2012), 127.

theological view of learning will foreshadow the cognitive changes and corresponding ethical choices to come.

Theological Framework

Pre-ministry students need to navigate complicated worldviews, including corresponding ethics, as they move from one Perry position to another. The biblical worldview metanarrative is neither common on secular college campuses nor uniform within confessional Christian universities. Christian students, especially pre-ministry undergraduates in confessional Christian liberal arts colleges, must navigate epistemologically among various views and metanarratives of professors and classmates. These may be competing views that can be seen at various times as very convincing to the searching student.

Some views may even deny a metanarrative in Scripture. Carson discusses metanarrative, stating that critics of metanarrative insist there is “no big explanatory story that makes sense of all the little stories.”⁴⁸ Discussions of metanarrative may be confusing to the dualistic thinking of freshly matriculating pre-ministry students.

George Knight sums up this point exactly: “The school exists in a complex educational milieu. To complicate matters, the components of this milieu may not all be espousing the same message in regard to reality, truth, and value . . . and gives the [student] a garbled message about his world and what is important in life.”⁴⁹ It will be no

⁴⁸D. A. Carson, *Christ and Culture Revisited* (Grand Rapids: William B. Eerdmans Publishing Company, 2008), 3.

⁴⁹George R. Knight, *Philosophy and Education: An Introduction in Christian Perspective* (Berrien Springs, MI: Andrews University Press, 1980), 13.

easy task for pre-ministry students to navigate the epistemological waters; some pre-ministry students may not survive the influx of new information and thought. As students move through the Perry stages they will need to navigate complicated worldviews.

Surviving New Ideas in College

The survival mode of college students, as opposed to thriving in the midst of new information and ideas, is not a new phenomenon. Perry detected ways students responded negatively in these contexts. Perry uncovered three alternatives to growth: temporizing, retreat, and escape. When students actively deny the potential of legitimacy in the views of others, Perry terms this retreat. Escape is a student denying or rejecting implications for growth. Temporizing is a student pausing for a prolonged period within any of part of the journey, perhaps as long a year, without showing signs of escape.⁵⁰

Pre-ministry undergraduates may be able to quote multiple Bible verses, believe they are called to the ministry, and demonstrate the desire to abandon other pursuits to study God and the church. However, if they do not have a firm grip on the biblical worldview, they may be prone to responding negatively in the classroom or dormitory setting as competing worldviews and metanarratives are presented. It is imperative students have the biblical foundation and theological framework to navigate the college years. The following section examines this foundation and framework.

Ethical Behavior and Biblical Wisdom

Emphasizing the cognitive ability of man, Kim states that the “wisdom literature of ancient Israel . . . observes that learners move from content mastery toward

⁵⁰Perry, *Forms of Ethical and Intellectual Development in the College Years*, 198-223.

higher levels of learning.”⁵¹ Using Piaget’s organization, adaptation, and stages (schema, or rational epistemology), Kim supplies a methodology of current cognitive Christian formation. Piaget focused on the highly analytical rather than experiential; construction of knowledge is in the mental sphere. With Piaget, man relies on the analytic functions of the intellect. The acquisition of intellectual data forms the Christian’s worldview in general and specific beliefs [ethical behavior] in particular.⁵²

Daniel Estes asserts biblical wisdom literature and pedagogical theory are closely linked, with wisdom being found in the fear of the Lord. Using the example of Proverbs 1-9, he “evaluates what is praised and what is condemned,” stating that the “implicit values of education can be ascertained.”⁵³ Estes’ work weaves the biblical material into the scheme and basis of learning and life. Though Perry’s research had little biblical or religious context, Estes’ goals for education reflected in the Proverbs easily correlate to what Perry discovered. At least four areas of cognitive development complement each other regarding Estes and Perry: (1) commitment of the learner, (2) character [ethics] of the learner, (3) competence of the learner, and (4) the learner gaining ultimate knowledge (knowledge of God’s glory for the believer).⁵⁴

Anthony and Benson add a poignant thought regarding mankind’s search for wisdom, “To Christian educators, only one true source of philosophic thought exists

⁵¹Jonathan H. Kim, “Intellectual Development and Christian Formation,” in *Christian Formation: Integrating Theology and Human Development*, ed. James R. Estep and Jonathan H. Kim (Nashville: B&H Publishing, 2010), 79.

⁵²*Ibid.*, 84.

⁵³Daniel J. Estes, *Hear, My Son: Teaching and Learning in Proverbs 1-9* (Grand Rapids: InterVarsity Press, 1997), 62.

⁵⁴*Ibid.*, 63-86.

because only one origin of wisdom exists. Ultimately, we know that source to be God Himself.”⁵⁵

Wood wrote deeply on the character issue also, calling it the pursuit of intellectual virtues. Moving outside the traditional moral virtues of generosity, compassion, and other personal qualities, he asserts, “Intellectual virtues have received less attention: these include character traits such as wisdom, prudence, foresight, understanding, discernment, truthfulness and studiousness, among others.”⁵⁶ He contends that these positive traits, co-mingled with a person’s foibles, shape his intellectual and moral growth.

Wood argues that developing intellectual virtues is necessary and just as important as physical wholeness, claiming that epistemological development in both an academic and spiritual pursuit. Wood discusses five parallels between developing academic and moral virtues: (1) it is a lifetime process; (2) growth in virtues is not automatic; (3) a community context of effort is present in becoming morally and intellectually virtuous; (4) regression is a real possibility, gains must be sustained by working at them; and (5) growing intellectual virtues requires growth in moral virtue, and vice versa.⁵⁷

Intellectual and moral virtues produce the ethical standards necessary for ministry students to succeed. The apostle Paul instructs young Timothy to not let people think less of him for his youthfulness, “but set an example for believers in speech, in life,

⁵⁵Anthony and Benson, *Exploring the History and Philosophy of Christian History*, 383.

⁵⁶W. Jay Wood, *Epistemology: Becoming Intellectually Virtuous* (Grand Rapids: InterVarsity Press, 1998), 16.

⁵⁷ *Ibid.*, 18-21.

in love, in faith, and in purity” (1 Tim 4:12). There is a clear link between academics, morality, and ethics. Timothy was to be both a student and a teacher of biblical curriculum; he was also instructed to simultaneously be a teacher of theology and a display of moral and ethical behavior. A man in the ministry without theological soundness, morality, and ethics is of little value to the kingdom.

Rehoboam, a son of King Solomon, followed his father on the throne of Israel (931-913 BC). Rehoboam’s reign is the perfect illustration of the consequences of the failure to develop intellectual virtues and ethical behavior (2 Chr 10:1-19). Jeroboam and the Hebrew workmen requested a lighter workload from Rehoboam. Rehoboam asked his elders for advice. They wisely told him to grant the request to win the people’s favor and loyalty; the advice was soundly rejected. Rehoboam then consulted the young men with whom he was raised. Their answer was for Rehoboam to be even harsher than his father, including threats of scourging. Great rebellion followed as a direct result of Rehoboam heeding this advice.

Intellectual virtues of wisdom, prudence, and discernment were absent from Rehoboam and the young advisors. As Aubrey Malphurs states of modern organizations, but absolutely applicable to Rehoboam’s kingdom, “One of the most powerful ways that values affect the character of an organization is in its ethics. . . . The reason the [Johnson and Johnson] company acted so quickly and ethically is because of its deep commitment to its credo (value set), in particular the first statement, which says, ‘We believe that our first responsibility is to our customers.’”⁵⁸ As the pre-ministry student moves through the

⁵⁸Aubrey Malphurs, *Values Driven Leadership: Discovering and Developing Your Core Values in Ministry* (Grand Rapids: Baker Books, 1996), 25, quoted in James C. Collins and William C. Lazier, *Beyond Entrepreneurship: Turning Your Business into an Enduring Great Company* (Englewood

stages of development, he must cultivate the intellectual virtues that are represented by wisdom as opposed to knowledge alone, prudence as opposed to recklessness, and discernment as opposed to endless information. It is the ethics displayed by way of wisdom, prudence, and discernment that will carry the ministry student successfully through his lifetime.

Intellectual virtues and displays of ethical behavior do not come easily in a fallen world that knows not God, or knows of him but refuses to acknowledge him. “They are darkened in their understanding [intellectual depravity] and separated from the life of God because of the ignorance that is in them due to the hardening of their hearts [spiritual depravity]” (Eph 4:13). Intellectual virtue, while not easily found, is worth every effort: “Blessed is the man who finds wisdom, who gains understanding, for she is more profitable than silver and yields better returns than gold” (Prov 3:13-14). From the pen of Solomon, “I saw that wisdom is better than folly, just as light is better than darkness. Wisdom makes one wise man more powerful than ten rulers in a city” (Eccl 2:13; 7:19). Solomon would have done well to pass this lesson of wisdom, virtue, and ethical behavior on to Rehoboam.

Rehoboam’s antithesis could easily be Hezekiah, a young man who ascended to the throne at twenty-five years of age. Hezekiah’s spiritual soundness (wisdom, virtue, ethics) began revealing itself immediately. The speedy repair and purification of the temple and purification of the Lord’s priests began in his first month on the throne (2 Chr 29:1-5). Rehoboam instilled no such spiritual revival during his reign. Hezekiah also

Cliffs, NJ: Prentice Hall, 1992), 66. Tylenol is manufactured by Johnson & Johnson. Following an episode of Tylenol’s being tampered with on store shelves, Johnson & Johnson immediately, voluntarily took all Tylenol products off store shelves. The loss was over one hundred million dollars.

reinstated the Passover, showing great mercy and kindness in his prayer to the Lord seeking a pardon for those who participated in Passover but were not ceremonially clean. His prayer demonstrated great virtue as he asked God to spare anyone “who set his heart on seeking God – the Lord, who is good – even if he is not clean according to the rules of the sanctuary” (2 Chr 30:19). This mercy is a direct contrast to Rehoboam’s response to those who needed mercy in their daily tasks. Finally, by the time Sennacherib attempted to destroy Jerusalem, Hezekiah consulted with his leaders “and they helped him” (2 Chr 32:3). The contrast of listening and working with valuable advisors can be seen no clearer than looking at the lives of Hezekiah and Rehoboam. The result of the intellectual virtue of Hezekiah and the kingdom was prosperity for both. Not so with Rehoboam.

Intellectual virtues of wisdom, prudence, and discernment were the hallmark of Hezekiah’s life. Wisdom displayed itself in the defense of the city, rallying his officials and military staff to immediately help him. Prudence was evident in his plea to God so spare those who did not sin intentionally. Discernment led him to restore the people’s worship of God, rejecting the sinfulness of his father, Ahaz. Without the ethical behavior displayed over a lifetime, Hezekiah would not have been able to lead his people. Biblical wisdom and ethical behavior are inseparably intertwined.

Ethical Behavior and College Dormitory Life

Compounding the pursuit of academics, intellectual virtues, and consistent ethical behavior is that not all learning takes place in the classroom or formal academic settings. Perry found dormitories a beehive of new ideas and experiences thrown at

students from peers in an unprotected atmosphere.⁵⁹ Pike agrees with Perry's assessment, finding from a study of 502 first-time college students that living on campus was directly associated with significantly higher levels of openness to diversity. He also found living in a Freshman Interest Group (FIG) was indirectly related to greater openness to diversity through students' relationships with their peers.⁶⁰

While diversity provides a host of positive experiences, it will also necessitate the college student examining his own worldview, perhaps adjusting his behavior. This adjustment, if not grounded in a biblical ethic, may lead to unbiblical experiences.

According to Schuh, Jones, Harper, and Associates, "The effects of living on campus were attributed to the types of relationships students established in such an environment and the expanded worldview that this opportunity creates."⁶¹ Not all these environmental changes and worldview displays are healthy, especially for pre-ministry students.

Chickering, Dalton, and Stamm discuss the driving force from a consumer mentality worldview in students. They assert that the holistic student development is taking a back seat to the demands of "students' self-interested consumer demands," calling it a "market-oriented campus ethos."⁶² This ethos is leading to the abandonment of colleges helping students out of their self-centered dualism and consumerism.

⁵⁹Perry, *Forms of Ethical and Intellectual Development in the College Years*, 31.

⁶⁰Gary R. Pike, "The Differential Effects of On- and Off-Campus Living Arrangements on Students' Openness to Diversity," *NASPA Journal* 39, no. 4 (Summer 2002): 283-99. FIG is a concept of students living in particular dorms based on their declared major or some other dominant factor, rather than random room selection.

⁶¹John H. Schuh et al., *Student Services: A Handbook for the Profession*, 5th ed. (San Francisco: Jossey-Bass, Publishers, 2011), 509.

⁶²Arthur Chickering, John C. Dalton, and Liesa Stamm, *Encouraging Authenticity and Spirituality in Higher Education* (San Francisco: Jossey-Bass Publishers, 2006), 151.

Knight addresses the issue by claiming that education, defined as formal classroom lecture or interaction, may be just a portion of student learning. Learning is defined as the “capability of exhibiting new or changed human behavior.”⁶³ Even within the dormitory life of confessional Christian universities, students will find and participate in a variety of new experiences. There is no guarantee all of these experiences will be healthy lessons. Biblical ethics may be readily and consistently challenged.

Perry’s Epistemological Framework

Students develop intellectually and ethically at varying rates and through numerous experiences, both inside and outside the formal classroom setting. Perry’s scheme proposes nine positions of college student intellectual and ethical growth built around four main themes: dualism (Positions 1-2), multiplicity (Positions 3-4a), relativism (Positions 4b-6), and commitment (Positions 7-9). These four areas expanded from his earlier work in which the positions were divided into only two areas: dualism (Positions 1-4) and relativism (Positions 6-9), with Position 5 serving as a transition between the two.

Basic Duality, Position 1, holds all problems are solvable and correct solutions are to be learned. It is marked by the in-group of authority and the out-group of imposters.⁶⁴ Learning is self-controlled obedience to Authority (A) through memory and hard work.⁶⁵ Authority is taken for granted. “Authority and Absolute,” “Truth and what

⁶³ Knight, *Philosophy and Education*, 10.

⁶⁴ Perry, *Forms of Ethical and Intellectual Development in the College Years*, 66.

⁶⁵ Authority (A) according to Perry represent the real, absolute, authoritative figures in one’s life; authority (a) represent instructors and others who are in less specific control.

They say,” and “right and what They want” are synonymous. This position is marked by “Authority-right-we” versus “illegitimate-wrong-they.”⁶⁶ To summarize, Perry states, “Authorities know, and if we work hard, read every word, and learn Right Answers, all will be well.”⁶⁷

Position 2 of Perry’s Scheme is Multiplicity Pre-legitimate, or Strict Dualism. Frauds disguised as Authority are discovered and must be deemed as wrong.⁶⁸ Students begin to realize the pluralism of answers and ideas related to various issues and ideas. They view pluralistic options as pre-legitimate, meaning they are in opposition to the idea of other means of interpretation outside of the Authority. Without the clear cut answers, Authority is asking them to make sense of the situation. There is stress and fear as students come to terms with pluralism. Students begin to realize that not all Authority is good Authority.⁶⁹ As Perry states, “Multiplicity perceived, but only as alien or unreal.”⁷⁰

Multiplicity is marked by the next two positions. Position 3 is Multiplicity Legitimate but Subordinate (Early Multiplicity). Position 3’s early multiplicity is marked by the student realizing ambiguity exists and perhaps there are no clear right answers; knowledge is “fuzzy.”⁷¹ However, clear and universal answers will be found; the student

⁶⁶Perry, *Forms of Ethical and Intellectual Development in the College Years*, 66.

⁶⁷William G. Perry, Jr., “Cognitive and Ethical Growth: The Making of Meaning,” in *The Modern American College*, ed. Arthur W. Chickering and Associates (San Francisco: Jossey-Bass Publishers, 1981), 79.

⁶⁸Ibid.

⁶⁹Patrick Love and Victoria Guthrie, “Perry’s Intellectual Scheme,” *New Directions for Student Services* 88, no. 4 (Winter 1999): 5.

⁷⁰Perry, *Forms of Ethical and Intellectual Development in the College Years*, 287-89.

⁷¹Ibid., xxxi.

feels it is best to wait for the authority to find the right answer to give to them.⁷²

Authority is still trusted, but students must work to find what Authority wants and try to provide it.⁷³ Perry sums up, “Then some uncertainties and different opinions are real and legitimate temporarily, even for Authorities. They’re working on them to get the truth.”⁷⁴

Position 4, Late Multiplicity, is marked by authority being seen as fallible. Authority still provides right answers when answers are given, but authority is not able to supply right answers in every area. Student opinions become part of the process, confusing students who have relied solely on facts from authority to prove their argument.⁷⁵ One direction that students follow is to learn the rules of the answer, giving the authority the answer he desires, which equals the new right answer. If the rules can be determined and followed, and material can be repeated within the rules, the student learns to answer correctly.

During Position 4 Perry believes students choose one of two paths before converging as a whole at Position 5. Position 4a is Multiplicity Correlate, or the creation of a double dualism in which Authority is right while at the same time the student is developing personal domains with corresponding freedoms. When no clear answers appear, personal opinion is acceptable. No one is wrong.⁷⁶ This is a way a student expresses respect for the views of others.⁷⁷

⁷²Love and Guthrie, “Perry’s Intellectual Scheme,” 9.

⁷³Perry, *Forms of Ethical and Intellectual Development in the College Years*, 287-89.

⁷⁴Perry, “Cognitive and Ethical Growth,” 79.

⁷⁵Perry, *Forms of Ethical and Intellectual Development in the College Years*, xxxi.

⁷⁶Perry, “Cognitive and Ethical Growth,” 79.

At Position 4b, Relativism Subordinate (Adherence Alternative), knowledge is “viewed as contingent and contextual; ideas are better or worse rather than right or wrong.”⁷⁸ Authority is not abandoned as Multiplicity occurs, it simply occurs within the context of Authority. Perry characterizes students at this stage: “They want us to *think* about things in a certain way, *supporting* opinion with data. That’s what they grade us on.”⁷⁹ According to Perry, as the students shift from Position 3 to Position 5, most transition through Position 4a.⁸⁰

Position 5, Relativism Correlate, brings a drastic realization to the student: the radical re-perception of all knowledge as contextual and relativistic. There is a reversal of thought pattern. Students “promote Relativism from its status as a special case . . . to the status of context, and . . . consign dualism to the subordinate status of a special case.”⁸¹ Authority (A) is now seen as authority (a), since thinking moves from “they want us to think this way” to intrinsically.⁸² Authorities are searching for answers along with students. Position 5 requires metacognition, or the “capacity to think about and examine

⁷⁷Perry, *Forms of Ethical and Intellectual Development in the College Years*, xxxi-xxxv.

⁷⁸Love and Guthrie, “Perry’s Intellectual Scheme,” 11. A clear distinction must be made between ‘relativity’ as defined by Bloom and the usage of the same word in Perry’s system. Perry’s usage corresponds to how one idea relates to another; it involves proximity of related ideas, not necessarily the moral equivalency of those ideas. As referenced in the terminology section of this work, Bloom’s explanation of relativity is that “there is no enemy greater than the man who is not open to everything.” Allan Bloom, *The Closing of the American Mind* (New York: Simon and Schuster, 1987), 27.

⁷⁹Perry, “Cognitive and Ethical Growth,” 79

⁸⁰Perry, *Forms of Ethical and Intellectual Development in the College Years*, 111.

⁸¹Ibid.

⁸²Ibid., 287-89.

one's own thinking."⁸³ Students "have to think about thinking."⁸⁴ It appears that as students move into and through this position that this thinking begins as conscious and moves to automatic.

Commitment Foreseen is Position 6. This position may bring "various reactions: eagerness, ambivalence, dismay, sturdiness, turmoil, simple acceptance."⁸⁵ These reactions stem from the realization of necessary commitments. As Perry states about students in Position 6, "I see I'm going to have to make my own decisions in an uncertain world with no one to tell me I'm Right."⁸⁶ These necessary choices become proactive from the student's view rather than reactive to the Authority or authorities. These choices also become individual choices rather than group-think. Commitments to new positions are not solidly made, but the student begins to see the need to make commitments to new positions.

Initial Commitment follows in Position 7. Commitment (C) becomes "an affirmation, choice, or decision made in the awareness of Relativism (distinct from lower-case *c* of commitments never questioned). Agency is experienced as within the individual."⁸⁷ He begins to make his own choices with issues of substance, such as life's vocation. The decisions will be made more or less by him in an uncertain world without the benefit of affirmation from others.⁸⁸

⁸³Love and Guthrie, "Perry's Intellectual Scheme," 12.

⁸⁴Perry, "Cognitive and Ethical Growth," 79.

⁸⁵Perry, *Forms of Ethical and Intellectual Development in the College Years*, 287-89.

⁸⁶Perry, "Cognitive and Ethical Growth," 79.

⁸⁷*Ibid.*, 80.

Position 8 and Position 9 are nuances of Position 7. Position 7 is commitment while Position 8, Implications of Commitment, is the balance of several of those commitments, especially how many and how deep, as well as how certain or tentative. Position 9, Developing Commitment, encompasses the thought of fighting for one's values while respecting other's values. It is holding deep values while simultaneously being ready to learn. The learning process repeats itself perhaps with more wisdom each round.⁸⁹

Perry's Epistemological Cultural and Discipline Aspects

Perry's researched exclusively white, male, privileged, American students. Numerous well-known gender related studies followed Perry. Less known cultural and discipline aspects followed as well. This section briefly reviews literature related to women outside the American context, and specific classroom subjects by a variety of students. It will begin, though, with a study of black men marginalized within the American context (prior to Perry but directly related to the subject).

Exploring a setting thirty to seventy years prior to Perry's research, James D. Anderson explored the role and division of thought of white educators and politicians in relation to black students during the late 1800s and early 1900s.⁹⁰ Some white educators argued for K-12 schools that would prepare the black student for college by offering

⁸⁸Perry, "Cognitive and Ethical Growth," 79.

⁸⁹Ibid.

⁹⁰James D. Anderson, *The Education of Blacks in the South, 1860-1935* (Chapel Hill: The University of North Carolina Press, 1988), 102-09.

classes promoting a liberal arts education, including classical languages. Others pushed for industrial training consisting of learning of manuals in relation to menial jobs. Surprisingly, even leading black educators such as Booker T. Washington and W. E. B. DuBois were split on the role and purpose of education for the black community.⁹¹

Perry's model more than half a century later was based on movement to higher levels of critical thought, an option blacks were seldom given. Blacks had little opportunity to contemplate critical thought as they were educated to think only one way, dualistic, in many areas. Blacks were nearly always seen as inferior; whites were seldom seen as anything but superior. As a result of this planned stagnation, blacks were seldom allowed to critically process information. Unlike the following Arab or female studies where Arab and American females were allowed to break out of the dualistic model, blacks were seldom given that opportunity.

Myint Swe Khine and Belinda Hayes moved outside of studies involving American women, exploring epistemological beliefs of a young, female, Muslim cohort in a Middle Eastern segregated culture where females are undervalued as a normative intention.⁹² This study represents the polar opposite of Perry's students (elite, white, male, upper-class). Khine and Hayes generally confirm the Perry model, as well as Belenky et al., Baxter Magolda, and King and Kitchener's findings regarding gender preferences in connected learning rather than separate ways of knowing.⁹³

⁹¹Anderson, *The Education of Blacks in the South*, 198-99.

⁹²Myint Swe Khine and Belinda Hayes, "Investigating Women's Ways of Knowing: An Exploratory Study in the UAE," *Issues in Educational Research* 20, no. 2 (2010): 105-17.

⁹³*Ibid.*, 115.

Li-fang Zhang used five studies to apply the Perry scheme in the Chinese cultural context. Both male and female students were included. Zhang's research reveals cognitive-development patterns of mainland Chinese students that differ from Perry studies.⁹⁴ Two observations followed. First, Zhang states that the Perry scheme may not be universal. Second, Perry may not be relevant thirty years after the study.⁹⁵ This study presents a minority view of Perry's findings.

Baxter Magolda and Gender

Perry's unisex study did not apply to females. Marcia Baxter Magolda conducted a longitudinal five-year study with gender related patterns emerging within four ways of knowing: (1) absolute knowing, (2) transitional knowing, (3) independent knowing, and (4) contextual knowing. Absolute knowing gender patterns emerged as men represented the mastery pattern (public role of interaction in class) and women represented the receiving pattern (listening and recording without engaging the class or instructor).⁹⁶

The pace of both sexes were similar in Baxter Magolda's research.⁹⁷ Absolute knowers (Perry's dualism) were the majority in freshmen, dropping steadily by the senior year and undetectable post graduation. Transitional knowers increased dramatically in juniors and seniors, respectively. Contextual knowers were undetectable in freshman and

⁹⁴Li-fang Zhang, "The Perry Scheme: Across Cultures, Across Approaches to the Study of Human Psychology," *Journal of Adult Development* 11, no. 2 (April 2004): 123-38.

⁹⁵Ibid., 130.

⁹⁶Marcia Baxter Magolda, *Knowing and Reasoning in College: Gender Related Patterns in Students' Intellectual Development* (San Francisco: Jossey-Bass Publishers, 1992), 36.

⁹⁷Ibid., 70.

sophomore years but were represented by a small minority one year following graduation.⁹⁸ The stages may have been similar, however, Baxter Magolda demonstrated that methods used by the differing sexes played a key role in the process of learning.

Baxter Magolda outlined pedagogical practices as a result of student ways of knowing. One major issue is disconnection of interaction between students, and between students and faculty, that would allow for intellectual growth through discussion, agreement, disagreement. She found a balance must be struck, though, between too much challenge to a student's thought and too much support. The first will stifle the student while the latter will simply be useless in helping formulate a defensible thought.⁹⁹

Belenky, Clinchy, Goldberger, Tarule, and Gender

As a response to Perry's male, Caucasian, upper class student study, Mary Belenky, Blythe Clinchy, Nancy Goldberger, and Jill Tarule's seminal women's epistemological study resulted in *Women's Ways of Knowing*. They documented a seven-stage knowledge process unique to women: (1) silence, (2) received knowledge (listening to others), (3-4) subjective knowledge (the inner voice and the quest for self), (5-6) procedural knowledge (the voice of reason and separate / connected knowing), and (7) constructed knowledge (integrating voices).¹⁰⁰

Though the study followed Perry by two decades, women still had little voice by today's standards. Perhaps more significant is Perry's inclusion of only two women

⁹⁸Baxter Magolda, *Knowing and Reasoning in College*, 70-72.

⁹⁹Ibid., 223-24.

¹⁰⁰Belenky et al., *Women's Ways of Knowing*.

from the 109 students. Furthermore, he excluded female participants in his analysis, utilizing only the 107 male subjects. Perry used his epistemology to evaluate women's development using the male model to confirm his findings. Belenky et al. termed these "alternative routes" as "sketchy or missing" and wrote that it was "poorly designed to uncover those themes that might be more prominent among women."¹⁰¹

King and Kitchener's Reflective Judgment

Patricia King and Karen Strohm Kitchener based their Reflective Judgment Model (RJM) at least in part on Perry's 1970 model of cognitive development.¹⁰² Seven distinct sets of epistemic assumptions and concepts within three major categories form the reflective judgment model: pre-reflective thinking (stages 1-3); quasi-reflective thinking (stages 4-5); and reflective thinking (stages 6-7). Since the research spans high school to older adults, the authors add valuable material to the process of critical thought and intellectual growth studied by Perry. King and Kitchener allude to several stages having direct relationship to Perry's stages (stages 1, 4).¹⁰³ However, stage seven moves further than Perry's commitment to relativism because "conclusions are open to reevaluation based on new information or new interpretations."¹⁰⁴ The discussion on developmental theory and characteristics are also useful when relating them to Perry's research.

¹⁰¹Belenky et al., *Women's Ways of Knowing*, 9.

¹⁰²Patricia M. King and Karen Strohm Kitchener, *Developing Reflective Judgment* (San Francisco: Jossey-Bass Publishers, 1994), 21.

¹⁰³*Ibid.*, 51, 61.

¹⁰⁴*Ibid.*, 71.

Perry and others predominately or exclusively used male subjects. King and Kitchener, reflecting on the possibility of men displaying advanced ability over women, “think such a conclusion is premature in light of the wide variations in sampling across these studies.”¹⁰⁵ They attributed the difference of ability to such factors as “academic aptitude, leadership opportunities, and different rates of maturation, or differences in the timing of growth spurts.”¹⁰⁶

Perry and Variations

Diane Bateman and Janet Donald examined the validity of Perry’s model. They found that rather than multiple stages of development, two levels or positions become evident: (1) facts and data supplied, and (2) quest for knowledge by students and related defense of new ideas. Overall agreement from students responding to items representing dualism were one-half of that of students who agreed with items representing multiplicity, relativity, and commitment.¹⁰⁷ Perry used men exclusively for his study. Bateman and Donald believe they achieved a more balanced perspective by including a balance of men and women.¹⁰⁸

Bateman and Donald show students moving in much the same way along the Perry scheme, but simplified the movement into two major categories. With these two categories, there is no contradiction in the studies. Similarities are easily found between

¹⁰⁵King and Kitchener, *Developing Reflective Judgment*, 186.

¹⁰⁶Ibid.

¹⁰⁷Dianne Bateman and Janet G. Donald, “Measuring the Intellectual Development of College Students: Testing a Theoretical Framework,” *The Canadian Journal of Higher Education* 17, no. 1 (1987): 35.

¹⁰⁸Ibid., 31-32.

(1) facts and data relating to Perry's dualism, and (2) quest of knowledge and defense of new ideas relating to Perry's latter stages of multiplicity, relativity, and commitment.

Robert Kloss adds to the discussion of moving students out of duality. Group work reinforces the importance of multiple perspectives without the instructor's presence signifying dominance of his own correct ideas.¹⁰⁹ It also "increases reliance on peers' perspectives and contributions to creating knowledge."¹¹⁰ Student-driven discussion creates knowledge and high expectations of achieving understanding.¹¹¹ This non-classroom interaction is significant because Perry states that most of the growth was through dormitory life, not classwork. The modern classroom has become more dormitory-like with the class participants' free and open discussion as well as frequent group-project interaction.

Piaget made a connection between moral and intellectual development in children. Kohlberg focused the same research on boys aged ten to sixteen. Kohlberg also tracked changes in the college years from moral ideology to ethical responsibility, based on a new-found respect for persons.¹¹² According to Gilligan as well, "Moral development in the college years thus centers on the shift from moral ideology to ethical responsibility."¹¹³

¹⁰⁹Robert J. Koss, "A Nudge Is Best," *College Teaching* 42, no. 4 (Fall 1994): 151.

¹¹⁰*Ibid.*, 152.

¹¹¹*Ibid.*

¹¹²Carol Gilligan, "Moral Development," in *The Modern American College*, ed. Arthur Chickering (San Francisco: Jossey-Bass Publishers, 1981), 152.

¹¹³*Ibid.*, 155.

Perry and Christian Students

Christian college students must move from ideology and theology to ethical responsibility based on their own ideology and theology, thus gaining a great respect for persons with whom they are seeking to minister. In direct relation to research regarding Christian students, they need to progress in their beliefs as they progress in their program of study. Rather than regress or escape during their studies due to unyielding attitudes and beliefs of others, they need a simultaneously clear, uncompromising understanding of others' views while still genuinely caring for the individual.

Moore provides an overview and update of epistemological models, as well as new perspectives on theoretical and conceptual approaches to personal epistemology and methodologies. Moore introduced in sweeping conclusion: "Even after thirty years of extensive and varied scholarship, the Perry scheme continues to reflect the most critical dimension to educators' understanding of learning and students' approaches to learning."¹¹⁴

According to Moore, the Perry scheme connects the learner, subject matter, and process of learning. The "most explicit extensions of the Perry model" have been conducted by Belenky, et al., Baxter Magolda, and King and Kitchener.¹¹⁵ Moore asserts the primacy of Perry: "What is important to note here is that while these authors have

¹¹⁴William S. Moore, "Understanding Learning in a Postmodern World: Reconsidering the Perry Scheme of Intellectual and Ethical Development," in *Personal Epistemology: The Psychology of Beliefs About Knowledge and Knowing*, ed. Barbara K. Hofer and Paul R. Pintrich (Mahwah: NJ: Lawrence Erlbaum Associates, Publishers, 2002), 18.

¹¹⁵Ibid., 23.

generally claimed that their work represents theories separate from the Perry scheme, there is no compelling evidence that these frameworks in fact define distinct theories.”¹¹⁶

Perry’s Epistemology and Motivation

Jody Jessup-Anger explored motivation in learning, concluding students believe they have either a fixed intelligence or an incremental intelligence. Students with a sense of fixed intelligence innately believe they are either adequate or inadequate for the cognitive task, and often “orient their goals toward performance, focusing on either gaining positive judgment” from others and “avoiding negative judgment.”¹¹⁷

Performance-oriented students often avoid challenges in order to save face.

Students believing they have incremental intelligence believe they are not limited by current abilities. Rather than focusing on performance, incremental intelligence students “orient goals toward mastery, focusing on increased competence.”¹¹⁸ Incremental-intelligence, mastery-oriented students typically respond by hard work and persistence. Performance-oriented students mimic Perry’s dualism stages with students unable to think for themselves, simply pleasing authority figures. The explanation of the mastery-oriented student displays Perry’s fifth position within relativism discovered.

Polanyi’s premise is that knowledge is pursued with personal participation in the attempt to understand, rather than impersonally and totally objective. It is intellectual activity with the learner taking great responsibility in the process. Dualist thinkers in

¹¹⁶Ibid.

¹¹⁷Jody E. Jessup-Anger, “What’s the Point? An Exploration of Student’s Motivation to Learn in a First-Year Seminar,” *The Journal of General Education* 60, no. 2 (2011): 103.

¹¹⁸Ibid.

Polanyi's context believe science is exact. Only when moving to the next positions of epistemological development do they realize that even science has alternate methods of answering questions; dualism is rejected even in the science realm. Polanyi does not believe this process is subjective, arbitrary, or a passive experience, but "a responsible act of claiming universal validity Personal knowledge is an intellectual commitment."¹¹⁹

Conclusion

Pre-ministry undergraduates may have a set of ethical values as they enter college, but these may be defended by little more than dualistic thought relying on strong authority figures. Ethics and values may waver in absence of original authority figures. Students must come to their own conclusion and commitments, outside the presence of strong authority figures (original Authority from home or Authority at the university). The students will need to have argued about, fought for, and defended their academic knowledge and ethical beliefs as they move closer to the commitment positions. They will not be able to adequately face lifelong ministry without such maturity.

Perry not only demonstrates college-student intellectual development, but also helps educators understand the pattern of ethical development of college students. Educators' understanding of student intellectual and ethical development is most helpful in guiding students. This guidance is necessary if pre-ministry undergraduates are to demonstrate not only their academic prowess as they near graduation, but also establish solid ethical procedures that will guide their lives and ministries. Pre-ministry students are lacking if they are without both competence and character.

¹¹⁹Michael Polanyi, *Personal Knowledge: Towards a Post-Critical Philosophy* (Chicago: The University of Chicago Press, 1962), vii-viii.

CHAPTER 3

METHODOLOGICAL DESIGN

As a deepening study involving a narrow strand of Trentham's original research comprising pre-ministry undergraduate students using the Perry Scheme, this chapter describes the process of research involving pre-ministry undergraduates in confessional Christian liberal arts colleges and universities. This section details the methodology of research, including the research questions, design, population, delimitations, and instrumentation.

Research Question Synopsis

1. What is the relationship between pre-ministry undergraduates of confessional Christian liberal arts universities to Perry's positions of intellectual and ethical development?
2. What are the distinctive patterns, if any, of pre-ministry undergraduates regarding intellectual and ethical choices compared to corresponding Perry positions of intellectual and ethical development in Trentham's previous research?
3. What is the relationship, if any, of pre-ministry undergraduates regarding their corresponding Perry position of intellectual and ethical development for those living in college dormitory settings?
4. What is the relationship, if any, of pre-ministry undergraduates regarding their corresponding Perry position of intellectual and ethical development for those who attended public schools?

Design Overview

This research is a qualitative study of thirty pre-ministry undergraduates attending confessional Christian liberal arts colleges or universities. The institutions were

selected from colleges and universities with Christian confessional requirements demonstrated through mission statements, core values, and tangible agreement by administrators and faculty.

Ten institutions were represented. Purposefully selected institutions helped to eliminate variables and frame the research questions to pre-ministry undergraduates within the previous boundaries of Trentham's overall research.

Interviews followed the Trentham Interview Protocol (appendix 4). The semi-structured format began with open ended questions followed by specific probes to clarify and explain intellectual and ethical thought processes.¹ Transcribed interviews were submitted to the CSID for ratings. My own analysis followed the CSID analysis and scoring.

Population

This study's population sample included only pre-ministry undergraduates within either side of six months of graduation. The undergraduates were from confessional Christian liberal arts colleges or universities. Active membership in a local church and clear intention to enter the ministry were required of the sample population.

Delimitations

1. The research was delimited to the institutions qualified as confessional Christian liberal arts colleges or universities.
2. The research was delimited to the pre-ministry undergraduates who indicated a strong desire or calling to ministry immediately after graduation.

¹John W. Creswell, *Research Design: Quantitative, Qualitative, and Mixed Methods Approaches* (Thousand Oaks, CA: Sage, 2014), 190.

3. The research was delimited to traditional-age students. Traditional student is defined as between the ages of 20 and 25.
4. The research was delimited to those students are within either sided of six months of college graduation with a bachelor's degree.

Limitations of Generalized Research Findings

This research was limited by the following:

1. This study provides limited understanding from only confessional Christian liberal arts colleges or universities, and from only pre-ministry students within six months of graduation.
2. The sample size of thirty students taken from ten confessional Christian liberal arts colleges and universities cannot make any conclusive statements regarding the whole of pre-ministry Christian college students across many institutions.
3. The quality of the pre-ministry students' high school achievement was not studied, therefore no conclusive statements regarding the academic background may be made. The only academic qualification required was entrance to the confessional Christian liberal arts college or university by way of ACT, SAT, or ACT Compass scores.

Instruments

Because this is a replication study researching a small strand of Trentham's original research in 2012, the current research questions accurately reflect the previous research. This method was chosen to replicate and deepen previous research, focusing specifically on pre-ministry undergraduates in confessional Christian colleges and universities. Trentham's Interview Protocol adaptation of Perry's research questions served as the instrument for this research (appendix 4). However, Trentham's protocol was modified to include questions designed to illicit information regarding high school education and college residence. These relate to research questions 3 and 4.

Thesis Study Participant Forms

Each participant was supplied a participant form permitting me to interview and collect data (appendix 1). The participant form also confirmed that he or she fit within the scope of the target research group. In addition, the form provided valuable information on the background of the student, giving some idea of earlier Perry Scheme positions. The form was modified to reflect the type of high school education and the type of college residence.

Interview Protocol

Each student was contacted by telephone to engage in a recorded, semi-structured interview. The interview began with a pre-determined set of questions that allowed for digging deeper into answers that may lead to a better understanding of the student. The interviews were recorded and I transcribed them. Transcribed interviews were sent to the Center for the Study of Intellectual Development (CSID) (appendix 5).

Procedures

Thirty pre-ministry students representing ten institutions were interviewed in a semi-structured phone call. Personal connections with deans of academics were contacted for lists of potential participants. Personal connections with leaders of various student ministries were utilized (for example, Mark Arbaugh, Baptist Campus Ministry, Montana Tech University). Student to student referrals were also used. When these leads were exhausted, cold calling of deans completed the list of colleges and universities used in this study.

Potential participants were contacted to gauge their eligibility and willingness. A \$10 Amazon gift card served as an incentive to students. Participation forms were sent to each student who showed interest. The participants were informed in advance regarding the expected duration of the interview phone call. Results of the study were offered to the students. Every effort was made to respect the time agreement with each participant. The interviews were one-on-one via telephone, limited to one hour. All interviews were recorded and I transcribe them. All transcribed interviews were scored by the CSID.

Design and Implementation of Independent Content Analysis

The CSID provided interpretation and analysis of the participants' interview transcripts. I evaluated the CSID analysis along with the notations of specific statements clarifying the established positions. Personal information provided by the participants was evaluated, including but not limited to age at conversion, type of ministry sought, commitment to ministry plan, college residence (family home, dormitory, off-campus), method of secondary education (homeschool, private, public), and gender. I also analyzed the participants' interview transcripts looking for insights regarding the students' development. This personal transcription lead to increased familiarity with the information provided by each participant.

Trentham, the original researcher for this multi-study cross-institutional investigative focus, conducted independent content analysis. Trentham specifically reviewed all statements identified as belonging to one or more of the ten priorities and

competencies. After his review many statements were deleted in order to validate the remaining statements.

Evaluation of Findings and Drawing Conclusions

Evaluations were determined regarding Perry Scheme positioning based on the CSID scoring. Conclusions were drawn by using the additional personal information collected prior to and during the interview. Distinctions were made between students who (1) live in campus dormitories, live off campus within a group setting, or remain at home within a family structure; and (2) prior educational methods including homeschooling, private Christian education, or public education; and 3) age and level of commitment to ministry plan. Wherever possible, conclusions were drawn with respect to Trentham's research with the cross-institutional application.

CHAPTER 4

ANALYSIS OF FINDINGS

Epistemological development of ministry students graduating from confessional Christian liberal arts colleges and universities was the singular emphasis of my research. The research was a deepening of Trentham's research involving ministry students graduating from a cross section of institutions: secular universities, Bible colleges, and confessional Christian liberal arts universities.¹ This was a qualitative study using purposefully selected institutions and participants. In addition, for the accuracy of research comparisons, Trentham's Interview Protocol was utilized. The analysis in this chapter includes the data itself, along with examination and explanation of the data. It also includes an evaluation of the strengths and weaknesses of the research design.

Compilation Protocol

Academic or student deans from forty-six confessional Christian liberal arts colleges and universities were individually contacted by email or personal phone call. Deans were contacted a maximum of two times. Email contacts included five attachments: Interview Protocol, Human Subject Risk Assessment, Abstract, Vita, and Dissertation Participant Form.

¹John David Trentham, "Epistemological Development in Pre-Ministry Undergraduates: A Cross-Institutional Application of the Perry Scheme" (Ph.D. diss., Southern Baptist Theological Seminary, 2012).

The majority of deans did not respond (78%). Five deans (11%) responded with requests for more information and the need to obtain approval. Due to the limiting time factors of this research deadline, these requests for further approval were not followed up. Five deans provided useful and timely contact information. Four of the deans provided 3 to 7 names; one dean provided 39 names with email contacts.

Even though only 5 deans provided useful contact information, a substantial number of participants were found within these lists. Additional names were garnered by requesting from first-level contacts other participant leads who might be qualified. In addition, several participants were found using my personal contacts.

A total of 97 potential participants were contacted via email to determine their level of interest, if any. A Dissertation Participant Form was attached within the invitation to participate.² An incentive of a \$10 Amazon card was offered for each completed and recorded interview. A \$10 Amazon card “finder’s fee” was also provided for students who supplied names of other students who qualified and successfully participated. Eight names were generated by friend-referrals; 4 of these students were interviewed.

Table 2. Dean and student participation

	<i>Total Contacted</i>	<i>Positive Response</i>	<i>Requested More Information</i>	<i>Negative / Non Response</i>
Dean Response	46	5	5	36
Student Response	97	35	--	62

²See appendix 1.

Participation Form Data

Each participant was screened using a completed Dissertation Study Participant form. The form recorded an agreement statement from each participant. The form also provided additional information including age, gender, major, church attendance and participation, timing of vocation call, secondary school type and atmosphere, commitment to ministry, and place of residence during the college years.

A semi-structured interview following Trentham's Interview Protocol was conducted with each qualified participant. Calls were Skype to cell phone and recorded using Pamela, a call recording software. Express Scribe software and foot pedal were used to transcribe the interviews. William S. Moore, Director of the Center for the Study of Intellectual Development (CSID), scored each transcribed interview and supplied written Perry Scheme scores with additional notes.³ I analyzed each interview using Trentham's ten epistemological priorities and competencies.⁴

Institutional Representation

Ten institutions were represented in this study. Six institutions were Baptist, with five of those being Southern Baptist. Three institutions were classified as either inter- or non-denominational. One institution was from the Christian denomination.

The high percentage of Southern Baptist participation may be a result of the introductory email stating I was a doctoral candidate at The Southern Baptist Theological Seminary, lending credibility within denominational universities. The overwhelming

³See appendix 5 for detailed information regarding William S. Moore and the CSID.

⁴Trentham, "Epistemological Development in Pre-Ministry Undergraduates," 168-80.

majority of Southern Baptist institutions did not provide help; however, Southern Baptists represent one-half of the institutions and more than two-thirds of participants.⁵

Table 3. Institutional representation

<i>Institution</i>	<i>State</i>	<i>Denomination</i>	<i>Students</i>
Azusa Pacific	CA	Interdenominational	1
Arizona Christian University	AZ	Non-Denominational	1
Biola University	CA	Interdenominational	2
Briercrest College	CAN	Southern Baptist	1
Carson-Newman University	TN	Southern Baptist	4
Hannibal-LaGrange College	MO	Southern Baptist	3
Johnson University	TN	Christian	2
Northland International University	WI	Southern Baptist	1
Oklahoma Baptist University	OK	Southern Baptist	12
University of Sioux Falls	SD	American Baptist	3

Gender

Thirty-three percent of the research participants in this study were female. This level of female participation broke from Perry's original research. He interviewed only 2 women within his study of 109 students, using neither one in his research.⁶ Female participation in my research was also an increase from Trentham and Long's female

⁵The institutions represented in this study include those that require their faculty (or at least their religion/Bible/theology faculty) to sign a confessional statement. Several of the institutions listed may not have such a stringent requirement. If not, the institution at the minimum is governed by a Christ-centered worldview as demonstrated by their mission statement and denominational affiliation.

⁶William G. Perry, Jr., *Forms of Ethical and Intellectual Development in the College Years: A Scheme* (San Francisco: Jossey-Bass Publishers, 1968).

participation, 13% and 20% respectively.⁷ It is also slightly higher than Christopher Sanchez' concurrent research among ministry students at secular universities (27%).⁸

Table 4. Gender participation in current study

	<i>Female Participants</i>		<i>Male Participants</i>	
Cannon	10 students	33%	20 students	67%
Sanchez	8 students	27%	22 students	73%
Long	6 students	20%	24 students	80%
Trentham	4 students	13%	26 students	87%
Perry	0 students	0%	107 students	100%

Ministry Commitment Level and Timing of Commitment

Twenty-five of the 30 students surveyed were very committed to ministry. Four students were not very committed; 1 student was somewhat committed. Within the 5 students who were less than very committed, 1 could not answer regarding his commitment to ministry despite graduating with a biblical studies major. One student graduated with a nursing degree, hoping to use it on the mission field. When pressed on the timing, she revealed it may be several years following practice in the United States. One student majoring in theology committed to the ministry during his junior year but had second thoughts near graduation. His commitment was not as strong as most others.

⁷Trentham, "Epistemological Development in Pre-Ministry Undergraduates," 141. Gregory Brock Long, "Evaluating the Epistemological Development of Pre-Ministry Undergraduates at Bible Colleges According to the Perry Scheme" (Ed.D. thesis, The Southern Baptist Theological Seminary, 2014), 77.

⁸Christopher Lynn Sanchez, "Epistemological Development in Pre-Ministry Undergraduates in Secular Universities" (Ed.D. thesis, The Southern Baptist Theological Seminary, 2015).

Another student echoed the previously mentioned student, stating that his commitment was less than when he began college. In spite of this, he stayed the course and graduated with a theology major. One student made a commitment to ministry near graduation when he was offered a job at a church. He was satisfied to serve in vocational ministry or use his degree and calling as a platform in a secular setting in the future.

Table 5. Commitment level to ministry and seminary plans

<i>Very committed</i>	<i>Somewhat committed</i>	<i>Not very committed</i>
25 students 83%	1 student 3%	4 students 13%
Attending seminary	Attending seminary	Attending seminary
22 students positive about attending seminary; 3 not positive	1 student positive about attending seminary	1 student positive about attending seminary; 3 not positive

The majority of students committed to ministry earlier than students studied by Trentham, Long, and Sanchez. Twenty of the confessional Christian college students committed prior to college. Eight of the students committed early in college; the remaining 2 committed in the latter half of their college years.

Table 6. Number and timing of commitment to vocational ministry

	Before college	Early college	Mid-late college
Cannon	20	8	2
Sanchez	3	7	20
Long	18	10	2
Trentham	12	5	13

Local Ministry Involvement

Commitment to ministry was reflected during the college years most often in youth ministry. Seventeen of the 30 participants worked with youth, 8 with children, and 1 each in music and church internships. Three students reported no church ministry activity during college. This was an interesting factor regarding pre-ministry students; several explanations were provided by these students.

Regarding lack of participation in ministry during the college years, 1 male student from a medium sized university summed it up with the following: “My church involvement has been spotty to say the least while at church.” Another student who stated her lack of involvement in a church during college mentioned four separate churches attended during her four years in college. One student involved with mission projects reported doing very little local church ministry. She was, however, involved with discipleship groups on campus.

Of the 30 students participating, 11 reported no ministry involvement outside their home church. The rest reported some level of parachurch ministry, although many were sporadic at best. One participant indicated a desire to serve in Africa: “I want to work in Africa to help with community, political, or economic development, but with the intention of evangelism.” However, the student reported no local church affiliation, ministry involvement, or parachurch ministry experience.

Degrees Sought

Most students graduated with some type of traditionally based ministry degree; several students pursued ministry outside of those degrees. At least 7 students graduated

with degrees as diverse as anthropology, communication, or film. Several students mentioned this aspect in relation to serving in non-traditional ministry settings.

Table 7. Degrees sought and number of students

<i>Degrees Sought</i>	<i>Number of students</i>	<i>Degrees Sought</i>	<i>Number of students</i>
Anthropology	1	Music	1
Bible	6	Nursing	1
Business	1	Political Science	1
Christian Studies	2	Preaching	1
Communication	1	Religion	7
Cross Cultural	2	Student Ministry	1
Film	1	Theology	4

Research Questions

The primary research question was “What is the relationship between pre-ministry undergraduates attending confessional Christian liberal arts colleges or universities and progression through the positions of intellectual and ethical maturity according to the Perry Scheme?” This question was the guiding force in the analysis of the following data.

Research Question 1

Research Question 1 asked, “What is the relationship between pre-ministry undergraduates attending confessional Christian liberal arts colleges or universities and progression through the positions of intellectual and ethical maturity according to the Perry Scheme?” The findings and corresponding analysis were a direct result of the Perry Position scores as rated by William S. Moore of the CSID. Further analysis includes participants’ ratings in context of previous and concurrent research. One previous study

was Trentham's 2012 Ph.D. dissertation utilizing a cross-institutional sampling including Bible colleges, secular universities, and confessional Christian liberal arts universities. The second previous study was Greg Long's Ed.D. thesis researching a subset of Trentham's sampling, Bible colleges. The final research was Christopher Sanchez's Ed.D. thesis researching another subset of Trentham's sampling, secular colleges.

Summary of Findings

Following the interview and transcription of 30 interviews of graduating ministry students from 10 confessional Christian liberal arts colleges and universities, William S. Moore of the CSID scored each interview. The following areas detail his procedure and rating of the interviews. I then present a detailed analysis of general findings.

CSID Reporting and Ratings

The transcripts of 30 student participant interviews were sent within three separate groups to William S. Moore, CSID Director. Moore scored each student transcript according to the Perry Scheme's nine positions of intellectual development. The process included three readings. The initial reading was for a general sense of impression and familiarization. The second reading led to highlighting specific texts within each transcribed interview indicating one or more definite Perry positions. (Ratings may indicate one particular position or one particular position with a trailing lesser position or leading higher position added.) The third reading led to a confirmation of the assigned rating and accompanying notes with explanatory language to provide clarity to me.

Measure of Intellectual Development (MID). The MID is scored by raters who have trained extensively in the general Perry scheme using specific rating process. Because the instrument is designed to assess the part of the Perry scheme that is primarily cognitive and intellectual in focus, MID ratings range along a theoretical continuum from Position 1 through Position 5. In practice, Position 1 perspectives are not found (it was a hypothetical and conceptual extension of the model even in the original study), and thus the actual MID ratings will range from Position 2 and Position 5.

The Rating System. Moore provided the following explanation of the MID:

Individual ratings on the MID are represented by a 3-digit number which reflects the dominant and (if necessary) the subdominant position/s rated in the essay. This system extends the Perry scheme continuum from 4 steps--that is, positions 2, 3, 4, and 5--to 10 steps: 222, 223, 233, 333, 334, 344, 444, 445, 455, & 555. Solid ratings (like 333) reflect a "stable position" perspective; the two steps between each stable position indicate transitional essays. As examples, 223 represents "dominant position 2 opening to position 3," while 233 indicates "dominant position 3 with trailing position 2. The ratings thus reflect an assessment of the cognitive complexity displayed by the essay with respect to classroom learning along a linear, simple stage model continuum.

Data Reporting. For reporting purposes, the MID ratings can be treated as categorical data as follows:

222 & 222(3) = Position 2	444 & 444(5) = Position 4
223 & 233 = Transition 2/3	445 & 455 = Transition 4/5
333 & 333(4) = Position 3	555 = Position 5
334 & 344 = Transition 3/4	

Generalized Findings

The mean score for my research was 3.15. The average of the 10 female students was 3.29; the average of the 20 male students was 3.05. These averages are below Trentham's overall student average (3.38) and his subset of Christian confessional

liberal arts students (3.53). One contributing factor may be seen in the frequent mention that groups of professors within the Baptist confessional Christian liberal arts campuses held closely related views to one another, resulting in muted dialogue and fewer challenges regarding contradictory or competing views. Baptist institutions represented 60% of the campuses and more than 70% of the students.

Moore states that students normally exit college at Position 3, Position 4 transition. This appears to be the case with my research. Twelve students (40%) of the liberal arts students were in the below average range (223-333), 17 students (57%) displayed average range Perry scores (334-344), and 1 student (3%) was in the above average range (444-555). The overall range of scores was Position 2.5. to 4.5. There were no Position 5 scores, the highest position Perry generally applied to undergraduates.

Position Examples

The following pages illustrate examples of Perry positions of my research students as designated by the CSID scoring method. Position 1 is not represented since Perry did not believe it represented college student thinking. Position 5 is not illustrated since none of my research students provided this level of development.

Position 2. Position 2 is illustrated by table 8. The table contains remarks from the only student who was designated as Position 2 on the Perry scale. The individual quotes within his overall interview range from Position 2 to Position 3.⁹ The overall Perry score was 2.33.

⁹An “opening” to another position is a stronger designation than a “hint” or “glimpse” of that position. See appendix 5 for full explanation.

Table 8. Position 2-dominant sample statements

<i>Position</i>	<i>Sample Statement</i>	<i>Primary Cue</i>
2	Mike: The role of the teacher is to properly convey the information needed, however that looked like, and being able to explain frustrating things like math or science or being able to put the information out there on the table, but also I think it's good if teachers can have that one on one time with students where they can have time to discuss other questions maybe about the course or other things.	Learning as information exchange; emphasis on 1-1 relationship with teacher
2	Mike: I think the teachers here understand that very well. From the student side understand that's what you're there for.	Rule structures
3	Mike: From the student side understand that's what you're there for. And to take what the teachers are investing in you and really learn how to apply that to your life and give it your best shot.	Focus on practicality/relevance
3	Mike: Being able to use that to do youth ministry after four years and being able to continue to do that and eventually maybe go on to the mission field. Being able to do something like that, I feel like it's prepared me and put in a place that possibly going to another school wouldn't have been quite as well equipped	Focus on practicality/relevance

Position 3. Position 3 is illustrated by table 9. The table represents 23 students.

The individual quotes range from Position 2 to Position 4. The overall Perry scores were 3.01. The male average was 2.96; the female average was 3.14.

Eight students were scored at Position 3, but in transition from Position 2 to Position 3. Individual quotes are from Position 2 to Position 3 with glimpse at Position 4.

Six students were scored at a stable Position 3. Their individual quotes range from Position 2 with a glimpse at Position 3 through Position 3 opening to Position 4.

Nine students are scored at Position 3, but are judged to be in transition from Position 3 to Position 4. Their individual quotes range from Position 2 to Position 4.

Table 9. Position 3-dominant sample statements

<i>Position</i>	<i>Sample Statement</i>	<i>Primary Cue</i>
2	Kurt: I didn't know it at the time, but I knew nothing coming into college. When I came in, I didn't know what a Bible dictionary was, I didn't know about textual variance, I didn't know about even existence of commentaries. I know way more about scripture.	Focus on facts/content – what to learn
3	Leonard: So it's really been a very open study of Christianity along with you know a slight a bit of information on other religions as well. So it really helped me gain a perspective of a deeper understanding of the church	Opening to multiplicity (multiple perspectives)
3	Cline: A lot of the religion faculty are drawn particularly to a denomination and therefore the literature we read and the biases the teacher has are towards that denomination and sometimes it can be presented in such a way that if you have a differing opinion then you're wrong or ignorant or something to that nature. I wish that were different.	Concern with process/methods – how to learn
3	Kerry: It was just a lot of work and extremely busy, that would be my biggest memory. I was constantly trying to get done early, and there were a lot of factors that played into making that difficult, or more of a challenge. It was a lot of work and a lot of stress.	Focus on challenge/ hard work = good grades
3	Kurt: My first semester was difficult because they had a basic theology class where they expose us to all these other ideas and I learned things, like wow, people think differently about the way Jesus atoned for our sins. That's a really big deal. That's a pretty important distinction. Hey, the word trinity is not in the Bible and people think the trinity actually works in different ways, well that's pretty important.	Opening to multiplicity (multiple perspectives)
3	Travis: Opened my eyes to see the tension in scripture. So if I am going use the example of the sovereignty of God, this radical call to obedience, then being able to say both/and a little more confidently and being okay with saying that, it's been something important to me here.	Opening to multiplicity (multiple perspectives)
4	Bart: They should change in their ability to think critically. As a Christian they should develop through that ability to be informed in new ways, in new imaginative insights on how we might be able to [mumble], also having you mind shaped and your imagination sparked to see how we might do good in the world.	Student more active, taking responsibility for learning

Position 4. Position 4 is illustrated by table 10. The table represents 6 students.

The quotes range from Position 2 through Position 4 with a glimpse at Position 5. The overall Perry scores are 3.78. The male average is 3.89; the female average is 3.67.

Five students have individual comments scored at Position 4, but judged to be in transition from Position 3 to Position 4. Their individual quotes range from Position 2 to Position 4 with a glimpse at Position 5.

One student is scored at Position 4, but judged to be in transition from Position 4 to Position 5. The individual quotes range of scores is Position 3 to Position 4 opening through Position 5.

Table 10. Position 4-dominant sample statements

<i>Position</i>	<i>Sample Statement</i>	<i>Primary Cue</i>
2	Sierra: Integrating faith with learning, so understanding the idea that truth is God's truth, regardless of your field of study the Lord is in and through it.	Use of absolutes in language
3	Carlton: It's been profs and books. What I've really benefited from and I learn best is through conversation. And so being able to have meals with profs in the commons or going to their office, having conversations	Learning as a function of teacher/student relationships
3	Sierra: For me, college has prepared me through the areas of time management because time management in the classroom affects it in the work place and relationships and our family, so time management is a big thing.	Student responsibility = working hard and/or learning skills
3	Carlton: It's been professors and books. What I've really benefited from and I learn best is through conversation. And so being able to have meals with profs in the commons or going to their office, having conversations	Learning a function of teacher/student relationships
4	Duke: Personal development – the biggest is reasoning skills, just in the fact that professors here encourage me to research and think, which I hadn't really done before.	Teacher is facilitator and guide

Table 10. continued

4	Carlton: In terms of assessment, I would like to see less, more writing, or possibly even oral assessment rather than regurgitation and sit there and say here are questions and now spit back what you've been taught. It encourages cramming at the last minute and spit it out rather than thinking, processing. Try to get into this person's head and write an essay that see how it affects other ideas. I'm not sure how helpful rote memorization is for most things.	concern with independent thinking, freedom of expression
4	Sierra: I've learned to think more analytically about my beliefs and my thoughts, my actions, since being in school simply due to the fact that I've been taught that I need to analyze how I'm focusing and what I'm focusing on because it's foundational. I feel like I've taken more ownership of my faith as a result of the education I've received because it caused me to have to think through all of those things.	Focus on ways of thinking – how to think
4	Jayden: The ability to read things critically or take things at a more critical level. Mainly through reading scripture, looking at fine details. Not criticizing scripture but looking at the whole context and apparatus of meaning, everything that a certain passage entails rather than just cherry picking a certain verse or theological idea out of a text.	"New Truth" rules (absolutes within multiplicity)

Perry Scores within Range Categories

The category range from my research indicated one student above average, 17 students average, and 12 students below average.¹⁰

Table 11. Number of students within range categories and range of scores

Range categories	Students		Range of scores	Students
Above average	1		Highest score in above average	445
Average	17			
Below Average	12		Lowest score in below average	223

¹⁰“Above average” is rated at 445 or higher; “average” is rated between 333(4) to 344; “below average” is rated 223 to 333.

Average Perry Score According to Gender

Women comprised one-third of the total participants and were rated slightly higher (3.29) than their male counterparts in my research. Though women were only one-third of the total students interviewed, they occupied 8 of the top 14 ratings.

Table 12. Average Perry ratings according to gender

Students	Average ratings	Students in above average range	Students in average range	Students in below average range
20 male	3.05	1 (5%)	9 (45%)	10 (50%)
10 female	3.29	0 (0%)	8 (80%)	2 (20%)
30 total	3.05	1 (3%)	17 (56%)	12 (40%)

Distribution of positions among participants

Perry MID ratings ranged from 223 to 445. A male occupied the top rating and males dominated the bottom ratings. Male and female students were fairly evenly divided in the remaining area.

Table 13. Distribution of scored Perry ratings among participants

<i>Participant</i>	<i>Rating</i>	<i>Position Description</i>
Mike	223	Dominant Position 2 with opening to 3
Stella, Bertha, Mathias, Reed, Kerry, Jerrie, Jayden, Kyle	233	Dominant Position 3 with trailing 2
Jake, Cline, Brydon	333	Stable Position 3
Travis, Coy, George	333 (4)	Stable Position 3 with hint of 4
Surena, Meagan, Susan, Bea, Renee, Darryl, Leonard, Kurt, Bart	334	Dominant Position 3 with opening to 4
Susan, Alexis, Bud, Carlton, Sierra	344	Dominant Position 4 trailing 3
Duke	445	Dominant Position 4 opening 5

Distribution of positions among institutions and academic majors

Southern Baptist institutions occupied the bottom five positions. Inter- and non-denominational institutions occupied the top 2 MID positions and 3 of the top 5. Bible students rated the second highest with a 3.50. Two music and political science majors rated higher; however, with only 2 students no conclusions can be made.

Table 14. Distribution of scored Perry ratings among institutions

<i>Institution</i>	<i>MID rating</i>	<i>Students</i>	<i>Denomination</i>
Arizona Christian University	3.67	1	Non-Denominational
Azusa Pacific	3.67	1	Interdenominational
Johnson University	3.50	2	Christian
University of Sioux Falls	3.43	3	American Baptist
Biola University	3.33	2	Interdenominational
Carson-Newman University	3.08	4	Southern Baptist
Oklahoma Baptist University	3.02	12	Southern Baptist
Briercrest College	3.00	1	Southern Baptist
Northland International University	3.00	1	Southern Baptist
Hannibal-LaGrange College	2.89	3	Southern Baptist

Table 15. Distribution of scored Perry ratings among academic majors

<i>Academic majors</i>	<i>Average rating</i>	<i>Participants</i>
Music	3.67	1
Political Science	3.67	1
Bible	3.50	6
Anthropology	3.33	1
Religion / Theology	3.33	11
Film	3.33	1
Nursing	3.33	1
Preaching	3.33	1
Cross Cultural	3.00	2
Student Ministry	3.00	1
Business	2.67	1
Christian Studies	2.67	2
Communication	2.67	1

Research Question 2

The second research question moved the data from a generalized Perry position analysis to a comparison with Trentham's earlier cross-institutional research: "What are the distinctive patterns, if any, of pre-ministry undergraduates regarding intellectual and ethical choices compared to corresponding Perry positions of intellectual and ethical development in Trentham's previous research?" Data included Trentham's research as a whole as well as the specific data from his confessional Christian liberal arts students.

Generalized Findings in Relation to Trentham's Research

The mean score for my research was 3.15. This is lower than the 3.47 found in Trentham's overall study. Trentham's 10 confessional Christian liberal arts students averaged 3.53, indicating an even larger gap from my participants. The average of female students in my research was 3.29, closer but still much less than Trentham's participants.

Moore states that students exit college at Position 3, Position 4 transition. This appears to be the case with most of my research participants. Twelve students (40%) of my liberal arts group were in the below average range; only 7 of Trentham's students were below average (22%). Both my research students and Trentham's students displayed average range Perry scores in similar numbers (52% and 57%, or 16 and 17 respectively). The largest discrepancy was Trentham's 7 students (22%) in the above average range Perry score while only 1 student (3%) from my research was in the above average range.

The overall range of scores in my research group was similar to Trentham's research. Both groups saw at least 1 student at Position 2.5. Trentham recorded a Position 5 student; my research group rated a Position 4.5 as its highest score.

Comparison of Range of Overall Perry Ratings Range

Trentham found a bell curve in the overall ratings with an equal number of below average and above average range ratings (7). The number of average range ratings (16) was significantly higher. My research with confessional Christian liberal arts students mirrored Trentham's in the average range (16, 14), but Christian liberal arts students in the below average range were nearly double of Trentham's students (12, 7). Only 1 of my Christian liberal arts student's scored in the above average range, significantly fewer than 7 in Trentham's research group. Long's Bible college students and Sanchez's secular university students are displayed for comparative purposes.

Table 16. Percentage of all students in each range

	Above Average	Average	Below average
Cannon	3% (1)	56% (17)	40% (12)
Sanchez	7% (2)	36% (11)	56% (17)
Long	23% (7)	46% (14)	30% (9)
Trentham	23% (7)	53% (16)	23% (7)

Range of Christian Liberal Arts Perry Scores

Trentham's Christian liberal arts students as a separate category demonstrated a gap with my research students. The below average range displays the least variance (30%, 40%), the average range displays a slightly larger variance (40%, 57%), and the above average range displays the greatest (30%, 3%).

Table 17. Percentage of confessional Christian liberal arts students in each range

	Above Average	Average	Below average
Cannon	3% (1)	56% (17)	40% (12)
Trentham	30% (3)	40% (4)	30% (3)

Range of Overall Perry Scores

The range of Perry scores was 2.5 to 4.5. This was the exact range of Long’s student scores and slightly less than Trentham’s student scores (2.5 – 5.0).

Research Question 3

Research Question 3 dealt with college residence of students in my study:

“What is the relationship, if any, of pre-ministry undergraduates regarding their corresponding Perry position of intellectual and ethical development for those living in college dormitory settings?” The original intent was to compare campus residence students with students whose residence during college was some place other than campus housing. All but 1 of the participants lived 2 or more years on their campus. Because there were not enough non-dormitory students to arrive at any conclusions, no data or implications are available.

College Residence

Nearly all of the students, when asked directly about their recommendation for residence during college, stated emphatically that the college experience was enhanced by living on campus. Many students mentioned that if students could afford to live on campus, they should. Only 1 student did not live in the dormitory of his college. The

hesitation regarding finances was the overriding reason the only non-resident student listed as the reason to live at home.

Table 18. Residence during college

<i>Majority of Residence On Campus</i>	<i>Majority of Residence Off Campus</i>
29 students 97%	1 student 3%

Table 19. Student recommendation regarding college residence

<i>Students recommending on-campus housing</i>	<i>Students recommending place other than on-campus housing</i>
28 students 93%	2 students 7%

Research Question 4

The participants in this study were questioned regarding their secondary education, including the type and size of school. This was information sought for Research Question 4: “What is the relationship, if any, of pre-ministry undergraduates regarding their corresponding Perry position of intellectual and ethical development for those who attended public schools?”

The overwhelming majority of students attended public high schools. Three students were home schooled; 1 attended a Catholic school. Because there were not enough home school or private school students to arrive at any conclusions, no data or implications are available. However, another area of analysis became apparent. There was a near total lack of contact with any ethnicity other than their own. This separation was evident in many high school experiences of the student. For more than half of the students, the racial separation was even more pronounced during their college years.

Table 20. Secondary educational setting

<i>Public School</i>	<i>Home School</i>	<i>Private School</i>
26 students 87%	3 students 10%	1 student 3%

Students were asked to respond to questions regarding contact with other ethnicities and international exchange students while in high school. Very few students had any contact with international exchange students. When asked about contact with other ethnicities, the vast majority reported their contact was limited or very limited. This was often due to the ethnic makeup of their home town.

Trentham and Long reported the “bubble effect” with college student experiences remaining within the Christian cultural context.¹¹ While Trentham and Long reported the bubble in theological issues, it appears from my study the bubble extended to ethnicity. Many students reported, implicitly or explicitly, the lack of racial diversity in their experiences in college. It appears the separation of ethnic groups became even more pronounced within the Christian college setting than in their high school setting. The bubble effect was reflected even in institutions known for their diversity, such as Biola and Azusa Pacific. (Availability may not inevitably correlate to connectivity.)

Table 21. Secondary education diversity contact

<i>No Diversity Contact</i>	<i>Some Diversity Contact</i>
18 students 60%	12 students 40%

¹¹Trentham, “Epistemological Development in Pre-Ministry Undergraduates” 194-95. Long, “Evaluating the Epistemological Development,” 113-15.

Trentham's Epistemological Priorities and Competencies

To validate my research in this area, student statements that may have qualified for each of the 10 epistemological priorities and competencies were submitted for Trentham's review. All identified statements were reviewed and/or discussed, then either confirmed or deleted. The resulting list in each area were affirmed as qualified.

As I reread the transcribed interviews, it seemed as though the confessional Christian liberal arts students in my research group were not challenged in the same way as many students were in Trentham's research group. Anecdotally, it seemed as if the theological struggles were often limited to debates on nothing more than Calvinism and Arminianism, or the date and authorship of a particular Old Testament book. The assumption of the Bible being authoritative was almost a given in these universities, leading to a diminished need for students to engage in robust defense of the Scriptures. Bea (Perry MID score 334) summed it up best: "I was surprised to find people who agreed with me so much. I was so much in the majority; it was new to me." The overall effect seemed as if skill defending the faith became a moot point. Thinking had already been done for the students, leading to lower Perry scores. Even with this background information, sufficient documentation from my research students was available for all of Trentham's priorities and competencies. I have included multiple examples of each.

Presuppositions for Knowledge and Development

Trentham's discussion of epistemological priorities and competencies began with biblically-founded presuppositions for knowledge and development. There are two

student-identified priorities within this epistemological-values category: 1) God and revelation and 2) faith and rationality.

God and revelation. A “recognition of the God of the Bible as metaphysically ultimate, and of revelation as the source and most basic component for knowledge and development” was Trentham’s first epistemology priority regarding biblical presuppositions.¹² Nine Trentham students provided examples of these statements; 7 of the 9 students were rated at Position 4-dominant.¹³ Eleven students were documented for this area in Long’s study of Bible college students.¹⁴ Seven students reflected this priority during my interviews (5 of 20 males and 2 of 10 females).¹⁵

The ratings for my research students were consistently a Position 3-dominant. Three students rated at Position 3, trailing Position 2; 3 students rated at Position 3, open to Position 4; and 1 student rated at Position 4, trailing Position 3 (Perry MID scale from 233–344). No clear articulation of a recognition of the God of the Bible as metaphysical ultimate was provided by any students reflecting Position 2. This was somewhat lower than Trentham’s findings where all but 2 of his 9 students were rated at some aspect of Position 4.

¹²Trentham, “Epistemological Development in Pre-Ministry Undergraduates,” 170.

¹³Ibid.

¹⁴Long, “Evaluating the Epistemological Development,” 94.

¹⁵Since this is a subject analysis from two separate researchers, the number of students reported in each “student identified category” cannot be not objectively measured with exactness. The quotes, however, do provide examples of such categories.

It appears that many of the students in the confessional Christian universities had settled the basic issue that “all truth is God’s truth.” As result they spoke more of the minutia of doctrine rather than foundational presuppositions. It is as if they bypassed the foundational structure of their belief and moved directly to the lesser important and more easily debatable theological points. The discussion in this area seemed a bit shallow in that many students did not have to defend themselves in this area in their classes.

Sierra mentioned the axiom that others echoed in one form or another: “One thing would be the idea integrating faith with learning, so understanding the idea that truth is God’s truth; regardless of your field of study, the Lord is in it.” Moving away from the religion and theological classes, Reed applied the idea to his general education courses:

I took a sociology and a counseling class and, even in science and biology, the people don’t get the Christian worldview. But to have a worldview you have to see the whole world through the lens of scripture. And so, every different area of discipline . . . there is an ethical mandate as Christians with the prolife and that stuff . . . that has to do with our Christian worldview.

Surena agreed with Reed’s sentiment: “When it comes to social sciences, learning how things like literature and history, politics, psychology, and anthropology all can relate back to God’s truth and God’s word . . . we tie it back to God and the Bible.”

Darryl, one of the few non-Caucasians in the sample group, addressed the issue from a different angle. As a result of the Native American culture in which he grew up, Darryl was forced to confront his own ideas regarding the inspiration of the Bible. His own commitment led him to fight for the idea among his people group. When speaking about his Native American relationships, he stated, “So people try to challenge me on the

inspiration of the Bible or they try to tell me that Jesus wasn't real . . . I can just help them understand they are wrong.”

Cline stated the issue clearly: “I’ve learned a whole lot. It’s important to know about other disciplines from the perspective that God has created all, so all is under his reign. That means all disciplines are under him and they’re good to pursue and attain knowledge.” Leonard may have articulated this area the most clearly when he moved his thought pattern into specific classes:

I think that things like human biology were able to give me a perspective of just how incredible and beautiful God’s creation is and a perspective that I would not have been able to get otherwise. Environmental sciences as I said is really impacted me in being more aware of how I care for the earth. History is interesting to be able to see how the world is developed and what has caused things like Christianity to be dead in the European countries. So there is a lot of array of different things that I can all implement into my faith as well as my major.

Faith and rationality. A “clear articulation of the relationship between faith and rationality” was Trentham’s second priority regarding biblical presuppositions.¹⁶ Six Trentham students provided examples of these statements, all of whom “were above the typical range for traditionally-aged undergraduates.”¹⁷ Long documented 3 students in his study of Bible college students.¹⁸ Six students in my research reflected this priority during interviews (3 of 20 males and 3 of 10 females).¹⁹

¹⁶Trentham, “Epistemological Development in Pre-Ministry Undergraduates,” 171.

¹⁷Ibid.

¹⁸Long, “Evaluating the Epistemological Development,” 94.

¹⁹Six different males represented the 4 examples in each area; only 3 females represented the examples in each area.

The students in my research group reflecting these statements were rated on the Perry MID scale from 233 to 344. Five students were rated at Position 3-dominant; the remaining student at Position 4 trailing Position 3. No clear articulation between faith and rationality was provided by any students reflecting Position 2. Compared with Trentham's research of the priority above, the current students again were well below the Perry range. With only 6 students articulating this priority, even with the majority rated at Position 3, it would be difficult to claim a correlation in the priority to epistemological positioning.

It appears these students addressed the issue of faith and rationality on a level less deeply as Trentham's students. The data tends to confirm this with Trentham's 6 students, "all of whom received positional ratings that were above the typical range for traditionally-aged undergraduates."²⁰ This is compared to my research group that was dominated by MID 233 ratings (3) with 3 others at 333, 334, and 344 respectively. My students did not appear to have to contend for the basis of their faith, again as the previous section stated, allowing for a less intense defense and discussion on the difficult foundations of their faith.

Sierra said this regarding faith: "If you do not think through your beliefs to their implications, you may not actually believe what you say you believe This process is what holds your beliefs together. Without these you won't mature." Jerrie stated, "I side more with facts or truth [when making a decision] I would say I'm reluctant to make a decision without research on it. I'm not much an impulse buyer or impulse decision maker. I like to methodically think things out" Robert was clear

²⁰Trentham, *Epistemological Development in Pre-Ministry Undergraduates*, 171.

when he said, “When it comes to making a decision, I like facts and proof, but at the end what’s an authority to me is my faith.”

Carlton stated that “in order to have a Christian worldview you have to get a clutch in each area in life and that’s the key to a well-rounded education in every facet of education.” He later continued with his thoughts:

Creation, that’s a pretty hot debate and there’s valid arguments on how the world was created and so I still think that two of them have flaws and I can’t believe in two of them, but one them I think is the more theological sound. If you read scripture you have to do certain things to believe in theistic evolution. You have to do hermeneutical gymnastics that I don’t see there. And I guess it is a valid belief, but for me I don’t know how the soul comes into place and through that, even with an old earth, I’m not sure how death comes into that category either. I don’t know how, that’s why my personal conviction is like apparent age theory, but that’s scripture’s interpretation and I think it is the most biblical understanding of the text.

Jake was seeking a ministry outside the traditional pastoral roles. He was trying to integrate his ministry skill and professional film making. As a result he wrestled with his faith in this way: “. . . and just trying to talk to them and trying to figure it out together and walk through different scenarios and seeing, trying to figure out together what is okay and what is not okay to have in a film as Christian.” This was a clear indication of the relationship of faith and practical application of rationality outside of a religious setting.

Metacognition, Critical Reflection, and Contextual Orientation

Trentham’s discussion of epistemological priorities and competencies moved to “metacognition, critical reflection, and contextualistic orientation.” There are four student-identified priorities within this epistemological-values category: (1) forms of

thinking, (2) wisdom-oriented modes of thinking, (3) criteria for assessing beliefs and values, and (4) social-environmental influences.

Forms of thinking. Bloom's taxonomy was used by Trentham to assess "a preference for higher-level forms of thinking."²¹ This was the first priority in Trentham's metacognition, critical reflection, and contextual orientation. The updated taxonomy includes six categories ranging from recall of information to understanding and using information: (1) remember, (2) understand, (3) apply, (4) analyze, (5) evaluate, and (6), create.²² (Synthesis and evaluation were the fifth and sixth levels in Bloom's original taxonomy.)

Trentham focused on the three highest modes of the updated taxonomy (analyze, evaluate, create). Fourteen Trentham students provided examples of these statements. Trentham reported "each above-average rated participant evidenced a preference for higher-level thinking" and 11 of the 14 received Position 4 dominant ratings or higher.²³ Long documented 19 students in his study of Bible colleges. Eighteen of my research students (12 male, 6 female) reflected this priority during interviews. Eleven students were recorded using Bloom's fourth stage, analysis. Six students indicated the fifth stage, evaluation. Only 1 student was documented in the final stage, creative.

²¹Trentham, "Epistemological Development in Pre-Ministry Undergraduates," 172.

²²Susan Ambrose et al., *How Learning Works: Seven Research-Based Principles for Smart Teaching* (San Francisco: Jossey-Bass Publishers, 2010), 245-46.

²³Trentham, "Epistemological Development in Pre-Ministry Undergraduates," 173.

Participants were distributed mainly within Position 3 (fourteen students), with four students at Position 4. The MID score range was relatively wide: 233 (5 students), 333 (3 students), 334 (6 students), 344 (3 students), and 445 (1 student). Therefore, there seems to be no consistent correlation with epistemological positioning in the Position 3 and Position 4 range.

When asked about growing up in college, Kurt displayed evaluation when he spoke in general terms about his progression to higher-thinking skills, “At the end here I’ve done more writing and thinking. In the beginning I didn’t do a lot of thinking, especially higher level thinking. But, this university strives to challenge its students to think and be able to use those higher level thinking skills to go out into the world.”

Kerry’s experience reflected information regarding the veracity of Scripture. He analyzed and evaluated the information, coming to a solid conclusion:

One thing that was really hard for me that challenged my belief is that I had the authority of Scripture challenged, and that was one thing I really struggled with and it was hard for me because it brought questions to my mind, that well if this a contradiction, then isn’t the whole Bible a contradiction. But I had to work through the difficulties and challenges and know there are no contradictions in Scripture.

Coy reflected on evaluating his own viewpoint during the transition from home and parental authority to college courses that reflected other worldviews:

I say that I’ve grown within my knowledge of different theological standpoints, ethical standpoints. And the more I go through college the more I realize how much I don’t know. And so throughout college you’re opened up to such a bigger world than where you are coming from high school to where you’re mind gets expanded. You get to open up to all the different viewpoints and trying to formulate your own opinions. It’s no longer mom and dad told me to do that so that’s how it had to be. Or this is what school says. You are starting to expand on your own opinions and making sure they are biblical. You have a greater understanding of the Bible and ethics, that’s key for my program.

Cline spoke of analyzing information: “I think a great college course would be one in which the teacher is knowledgeable in the subject. Also knowledgeable enough to the point that they can break it down so the students can begin to ingest information and make it their own.” Jake related that students should be willing to analyze and evaluate information presented in class. He spoke of the necessity of students asking questions and engaging in conversation, not being afraid of asking the “wrong” type question:

The role of the student is to show up and actually participate, to actually engage I conversation, in discussion, to ask questions. And don't be afraid to respectfully challenge something if you don't agree with something or don't understand. I think students, even in my college experience, I was afraid to ask questions due to feeling that someone was going to say it was a dumb question, and just not being afraid to have dumb questions. I think a lot of that is what the professor is to do, to be being open to that and tries to connect...well some of the best classes I had where when the professor connected with us on more of a one on one level from time to time and showed true care of the work we were doing.

Bart (rated 334) also spoke of asking questions. While not stating explicitly that he created his own ideas within the context, he displayed analyzation and evaluation in his thoughts. Interestingly, Bart delineated the process that he undertook, recognizing his own personality traits within the process:

I've learned how to ask better questions. I've learned the value of asking good questions and the ability to listen, so the skill to ask and the cultivate listening with questions are asked. ... Whenever a new idea comes, or whenever I'm challenged, or put in to a place where I'm sitting across the table from another idea or they're going to challenge me on something, I have a personality that shuts down and goes to brood on it by myself and then come back and talk about it later. But I think it just takes, I've learned that it takes time and it takes honesty and it takes inquiry to challenge everything. If something is presented to you, I'll take it at face value but go ahead and ask why they came to those conclusions, ask where they got the information, where they're coming from, what the context they're in.

Carlton (rated 344) was the only student to reflect Bloom's final stage, creation. He explicitly changed his worldview as a result of new information. Carlton said, “Initially I had a gut reaction opposition to a lot of things. But with time I began to

allow myself to be questioned and challenged and come to value being questioned and being confronted with new ideas. I began to try to incorporate those ideas in to my worldview.”

Wisdom-oriented modes of thinking. Wisdom-oriented modes of thinking was the second priority in Trentham’s metacognition, critical reflection, and contextual orientation. Four Trentham students provided examples of these statements; there was no observable Perry position pattern.²⁴ Long found 7 instances of this priority.²⁵ Four students (3 male, 1 female) in my research reflected this priority during interviews. Three participants were rated at Position 3 with 1 student at Position 4 (MID scores 233–445). In conjunction with Trentham’s reporting, there was no discernable pattern of distribution of positional ratings due to only 4 examples.²⁶ Examples of the wisdom-oriented priority include the following thoughts.

Jake spoke of the connection between wisdom of connecting decisions with the outcomes, using the analogy of playing a movie forward to see what the logical outcome might be if a certain action was taken:

There is this thing called the leadership test. There’s three questions you go through a big decision. The three questions are, is this going to help on your way or get in your way, are you going to be better off with it or without it, and is it something that will do more for you or more to you. I think just taking those questions, and even before I had those questions, it’s really thinking about every aspect of the decision. And playing the movie, if you will, the life forward, if you make the decision and what would happen if you don’t, and evaluating what is the best route and also seeking counsel from friends and mentors and those whose opinions you trust.

²⁴Trentham, “Epistemological Development in Pre-Ministry Undergraduates,” 174.

²⁵Long, “Evaluating the Epistemological Development,” 98.

²⁶Trentham, “Epistemological Development in Pre-Ministry Undergraduates,” 174.

Bart used a similar process, although not using the movie analogy. He connected the teaching to his future church five years later and the effect of today's education on that church:

Though they are not the most popular, I would say reflection type essays, ones that ask you to apply the material you are learning to a contemporary context. So for instance, if we are talking about the law in the Pentateuch, you don't keep it ... we study it in its context but we also ask what bearing might this have in five years when you're in your church setting and these kind of situations arise. How might this might speak to the situation? I think this challenges us not only to study in this instance well, but also challenges us to apply it to the context today. That's really hard, so those things that stretch the imagination through essays.

Jayden was asked, "What is your view of an ideal college education?" His answer focused on wisdom, or the practical use of knowledge in context of a vocation or profession:

Well, it's one that incorporates knowledge and gain of wisdom. It's one thing to study books and study texts and abstract theories and provenance of epistles, but being able to take that knowledge and incorporate it into your vocation and profession is really helpful so that you're not stuck with all this knowledge and get thrown into the real world and I don't know what to do with it. Something I've gained a lot here is wisdom and how to use that knowledge. For me, an ideal situation is knowledge that can be implemented into what you're going to doing in the future. It's not just information, but it's practical too.

Criteria for assessing beliefs and values. A "reflective criteria of assessing one's own beliefs and values, as well as divergent beliefs and values" was Trentham's third priority regarding metacognition, critical reflection and contextual orientation.²⁷ Four Trentham students provided examples of these statements; 3 of the 4 students were rated in the above-average range with the remaining student was rated at Position-4

²⁷Trentham, "Epistemological Development in Pre-Ministry Undergraduates," 175.

dominant.²⁸ Long documented 6 students in his study.²⁹ Two female students in my research reflected this priority during interviews; both rated at 334. With only 2 students representing this priority there can be no discernible finding that suggests a consistent correlation with epistemological positioning.

Several students hinted at assessing their beliefs, but stopped short of actually assessing their beliefs and values. Sierra provided a historical reflection, yet fell short in demonstrating a criteria for assessing beliefs and values as she worked through her view of God and what she initially thought was his thought of her conduct:

I think a lot of times we don't realize just how much of our lives we allow to affect our view of the Lord or our view of the relationship with the Lord. I have a tendency to be a perfectionists and because of that, I hate making mistakes. So that tendency affected my view of the Lord, so I was prone to see the Lord as really angry with me every time I wasn't perfect or disappointed in my any time I did something that, on accident or on purpose, any time I did anything wrong, I thought the Lord was very angry and resentful toward me. Through living life with others I realized that was in incorrect view of the Lord. When I changed my view of the Lord my response to myself had to change also.

Jake also provided a historical development perspective but was not reflective in his assessment. The only pre-ministry student who wanted to use film as a medium to share the gospel, Jake had to come to specific conclusions about his beliefs regarding the limits of what is and what is not acceptable material for Christian films. He spoke of his thoughts in this area:

I think that one of the biggest classes that challenged some stuff was probably one of my film classes. Just what is okay to have in a Christian film, what is okay to put out there, and just keeping moral integrity and integrity of the characters and making it a believable and true story. That just brought a lot of discussion on what is okay and what is not okay. It challenged me a lot as a Christian, "Can I do this or can I not?"

²⁸Trentham, "Epistemological Development in Pre-Ministry Undergraduates," 175.

²⁹Long, "Evaluating the Epistemological Development," 99.

Meagan was one of the two students who moved into actual assessment, but perhaps just barely. She wrestled with specific beliefs regarding sovereignty and free choice. She mentioned two theological worlds colliding as a result of vastly different theological beliefs in her class and her church:

One thing that has been for me an overarching thing during my college time is in my religion is the debate over sovereignty and I was exposed to the idea of free will in one of my freshman intro classes. For me growing up Baptist, I knew that I understood the idea of choice but I didn't know it could go to that extreme. At that same point as a freshman I was beginning to attend a church which is reformed and Calvinist, a very different perspective. So those two worlds collided during my freshman year. I had to figure out very quickly how to understand this tension between my religion professors and this ministry I was becoming a part of. I don't know that I've fully figured that out or answered that problem, but over time I've talked with my professors and the leaders of that ministry, trying to understand both sides and get a better grasp of why there is that tension between the two views and kind of what each side understands and then try to find my own truth out of that. That's how I've tried to address these issues.

Renee, classified as the second student identified in this category, was also on the edge of assessing her beliefs and values:

When I look back, I think in my freshman and sophomore years I was very ignorant and very just very young in my faith. And being here over the years has really challenged me. So I was very ignorant coming in and now I still don't have all the answers but I am on a path of learning and challenging myself to question things in order to learn more about the gospel who God is and what that looks for my life now.

I spent last fall in Africa and there was a lot of things that were really challenging and a lot of things that didn't line up with truth and so from my time in college and learning those things in those conversations and how to take that back to Scripture and to seek out what it means and what the words says about these things. I was able to do that out there and so it also has like served as a really good foundation for my faith and what I believe and so I am very grateful for this sort of thing.

Social-environmental influences. A “recognition of social-environmental influences on one’s learning and maturation” was Trentham’s fourth priority within the

category of metacognition, critical reflection, and contextual orientation.³⁰ Three Trentham students were identified in this area; all received Position 4-dominant ratings.³¹ Eleven students were found in this category in Long's research.³² Five students (2 male, 3 female) in my research reflected this priority during interviews. Four students were rated at Position 3; 1 student was rated at Position 4 trailing Position 3 (MID 233–344). Once again with such a minority demonstrating this priority, a consistent correlation with epistemological Position 3 rating would be a weak claim.

Surena was asked how her major prepared her for the future, replying regarding cultural differences that lead people to approach issues from a different vantage point:

That's a good question. I think for anthropology it's taught me that there, let's see, there are a lot of other people who have grown up with different experiences than I have. And that kind of thing's very obvious, that we would all recognize that and acknowledge that, but it's taught me really how to deal with other people who've grown up in culture even in the United States that would be different from mine and would lead them to be thinking and approaching things in a different way than I would be. How to reconcile what we learn with like science and culture, sociology what we learn about people that way, and what the Bible says about God and people and how he made it and how to mesh the two without being unfaithful to the Bible and what God has taught us.

Susan was asked about classes which challenged her Christian beliefs and values. The homosexual issue occurred again, along with other beliefs, which caused her great concern as she wrestled with her social environment in college. She was then asked how she reacted to the social agenda-type challenges:

³⁰Trentham, "Epistemological Development in Pre-Ministry Undergraduates," 175.

³¹Ibid., 176.

³²Long, "Evaluating the Epistemological Development," 100.

I think that the thing about this college is that it is diverse in that not everyone is Baptist or whatever; there's homosexuals, there's atheists, that sort of thing. I remember especially in the first two years I was taking classes with all those people and I was thinking, what is happening? Like the worldview was completely rocked cause I grew up home schooled and so I just knew one view. It was really interesting to see different views and come to appreciate them, maybe not adapt them as my own, but appreciate them and realize why I don't agree with them

At first, I would tell my roommates how stupid this person was because they didn't believe what I believed. As the years went on I would sit there and think about it and realize I couldn't change their view and their view wasn't necessarily wrong for them I guess. I would just kind of sit there and take it and say yeah, I respect that, but here's what I think. I thought if I respected them they would give me the same thing. Yeah, it definitely changed in the four years. I was very closed off to it at the beginning and now I've come to appreciate other views a lot more.

Jayden spoke of the social environment including atheists, nominal believers, vulgar students, Buddhists, Hindus, and Muslims:

We surprising have a really diverse campus in that sense. The majority isn't hostile to Christianity or in your face, but there's a lot of people on campus that don't think there's a God, "Like I'm not going to criticize you for thinking there's a God, but I don't personally think there is." The sports teams are a bit rowdy and vulgar at times, because they don't know any better. It's interesting to see the interaction between Christian students and them. I know I've grown a lot from being in that environment where people don't agree with me and not acting like I would as a Christian. There are also a lot of international students, so we have a lot of nominal believers that don't actually do much. We have a few Buddhist and Hindu students. There were one or two Muslim students, so it's really a diverse campus and I've appreciated being challenged.

Renee presented a most interesting illustration involving social-environmental influences. In fact, for confessional Christian college students insulated from many of the more bizarre cultural aspects of the more traditional secular universities, this may be the best illustration of social-environmental influence:

Right now just in how there are so many cultures around us anywhere I go and that goes with anthropology as well. I've learned how to relate and ask questions and really taking interest in people, do that, learn how to share the gospel to them.

And my junior year I started kind of branching out of my group and praying that the Lord will open my eyes to just the lost ones on this campus and so I did, I made

friends with a couple of girls that were not believers and through that, and other cultures as well, because I'm a culture student too, and so it was really interesting for me to just be friends and learn from them so I've had some I wish I had more interactions because it's, you know, you have to put yourself out there and you have to go to them and so that's the fail on my part but with the ones that I've had it's been really good.

My own experience of teaching five years in Syria and Jordan shapes my interpretations of students when they speak of relating to other cultures, especially asking questions such as Renee's. These questions shape metathinking, leading to maturation. She related to the people, which many times requires a change in thinking. She asked questions which often leads to learning. She in fact learned from them, thus shaping her views. Even though Renee never uses a phrase such as "metathinking," by the very nature of her involvement metathinking took place.

Personal Responsibility for Knowledge– within Community

The final Trentham category of epistemological priorities and competencies addressed "personal responsibility for knowledge acquisition and maintenance–within community."³³ "Self-motivation and personal commitment for epistemological growth, as well as perspectives regarding development within community" were the focus of this priority and competency. There are four student-identified priorities within this epistemological-values category: (1) interdependence and reciprocity, (2) personal responsibility, (3) active and engaged learning, and (4) convictional commitment.

Interdependence and reciprocity. A "pursuit of personal development that results from mutual interdependence and reciprocity in one's relationships with authority

³³Trentham, "Epistemological Development in Pre-Ministry Undergraduates," 177.

figures and peers” was the first priority in Trentham’s third category of personal responsibility for knowledge within community.³⁴ Five Trentham students provided examples of these statements with all 5 receiving “position ratings reflective of a point of transition between Positions 3 and 4.”³⁵ Long documented 8 students in this area.³⁶ Eight students in my research group reflected this priority during interviews (5 male, 3 female). Students were rated as Position 3 trailing Position 2 to Position 4 opening to Position 5 (MID 233–445). Because students represented Position 3 trailing Position 2 through Position 4 opening Position 5, participants’ overall epistemological examples exhibited no observable connection with a specific Perry position.

On first read for this priority, I documented 18 students compared to only 5 from Trentham in his research. Seeing a large disparity, I then reevaluated the statements in a narrower fashion and documented 11 students in this area. After further consultation with Trentham, 8 student statements were documented.

Many of the students in my study mentioned their admiration of their professors. There was a natural link in this area in many interviews. However, upon further examination during the rereading of the transcripts, it appeared that the relationship factor did not always translate into the self-motivation that lead to personal and epistemological development.

³⁴Trentham, “Epistemological Development in Pre-Ministry Undergraduates,” 177.

³⁵Ibid.

³⁶Long, “Evaluating the Epistemological Development,” 100.

When asked what stood out to him, Mike was enthusiastic in his answer regarding his motivation provided by the faculty. The availability of the faculty outside the classroom impacted his desire to learn and grow intellectually:

Oh, man. I would have to say one of the big things is the faculty here. Just the teachers, especially in the theology department really invest in the students and invested in me. We were always able to access them and ask them questions any time. If I couldn't one day they were available the next day. In some of the other universities in talking with my former high school classmates they don't have that one on one opportunities like here.

When speaking about personal development, Duke spoke of his professors encouraging critical thinking skills. He had this to say about his epistemological growth:

The biggest one is reasoning skills, just in the fact that the professors here encouraged me to research and think for my own, which I hadn't really done before. And that it really helps my decision making just because, about things I believe and things I'll do just cause before I came here I always thought there was going to be a clear cut answer for absolutely everything. I was pretty black and white. Now I'm understanding more and more that things in the area I'm studying as well as issues in the world are probably more complicated than they seem on the surface.

Reed had the following to say when asked about a relationship with a professor. It appeared the relationship spanned both academic and spiritual pursuits, a healthy combination for pre-ministry students:

It's had a huge impact on my spiritual life and honestly I look forward to this meeting when we drink coffee and talk about a book or a book of the Bible. I look forward to that meeting time every single week more than I look forward to class possibly, if I was straight up with you. That's probably my favorite part of college.

Finally, Renee was asked the following question: "What will be the role of the teacher and what will be the role of the students in that type of course?" The answer involved the dynamic between teacher and student, with both participating in the educational outcome:

But coming into college my professors really, just took me and invested in me and made it known they wanted to help me, they weren't there to just grade my papers,

and give just like half the class, that they wanted to really do life with me. And if there is things that I was struggling with spiritually or just in general like they would pour wisdom into me, so I would definitely say, the experience and relationships that were made with my professors.

I think the teacher would, the teacher would be willing to just invest everything they have with us, with the students, but the students will be willing to ask hard questions, ask and want to learn from these teachers. These teachers would model that for the students. And so what they're teaching us, the professors will model and the students will watch and then try to replicate.

Personal responsibility. A “sense of personal responsibility for gaining, maintaining, and progressing in knowledge” was the second priority in Trentham’s third category of personal responsibility for knowledge—within community.³⁷ Fourteen Trentham students provided examples of these statements with scores relatively equal across the positional ratings.³⁸ Long noted 7 students who fit this category.³⁹ Thirteen students in my research reflected this priority during interviews (4 female, 4 male). Students were rated as Position 3 trailing Position 2 to Position 4 trailing Position 3 (233–344). In modeling the wide range of Perry scores in the priority directly above, participants’ overall epistemological examples exhibited no observable connection with a specific Perry position.

As with the previous priority, the number of students in my research who seemed to display this priority was quite high at first glance. It was more than double of Long’s student count in this area. However, after a reevaluation coordinated with Trentham, the designations in this area dropped to the currently documented level.

³⁷Trentham, “Epistemological Development in Pre-Ministry Undergraduates,” 178.

³⁸Ibid.

³⁹Long, “Evaluating the Epistemological Development,” 101.

An ideal college education included rigorous academics that made Kurt work for what he received. The last thing he wanted was a perfect score that ultimately meant nothing of value on an assignment:

An ideal college education on the academic side would be rigorous. I want a program that doesn't hand things to me, but it makes me reach for them, that doesn't just give you hundreds on everything but picks apart your work even if it's already good. I want critical criticism and be challenged to think of all angles of a situation and to take in more than information, to be challenged to perform at a high level.

When asked about the role of the teacher and student, Carlton had an observation regarding the student's responsibility in the education process. He included the idea of the "office" of teacher in speaking of respect, "For the student, I do think he needs to the passion and drive to learn. He has to be teachable, he can't know everything in the beginning. He needs to be able to learn from his teacher and think the student should respect the professor and he should honor him and what he does, even his name."

Cline was asked, "What is your view of an ideal college education?" Giving the strongest response, he was the only one who connected a holistic education with the need to be motivated to study across disciplines. In conjunction with the cross-discipline studies, he also wanted to avoid being "indoctrinated," but wanted to make informed decision on his own:

I think, well, from my perspective, I've gone through a small liberal arts Christian based college so that has shaped how I think about education in a holistic manner. I guess learning that it's important to learn about the math and sciences and history and sociology and all the disciplines in order to from a more holistic education. I think that is an aspect of an ideal education. I think the other aspect would be the ability to acquire information and then make an informed decision on your own, and not to be indoctrinated or anything of that manner. I think those two aspects would be an ideal situation.

Active and engaged learning. A “preference for active involvement in the teaching and learning process” was the third priority in Trentham’s third category of personal responsibility for knowledge–within community. “Multiple participants from each sampling group” of Trentham students provided examples of these statements (18 in all) with ratings covering all rating levels.⁴⁰ Twenty-two of Long’s research study participants articulated this priority.⁴¹ Eleven students in my research group reflected this priority during interviews. Students were rated as Position 3 trailing Position 2 to Position 4 trailing Position 3 (233–344). This priority reflected a consistent middle-ground epistemological position since no student’s sample was rated at Position 2 or Position 4 stable.

One often unstated thought pattern seemed to be the passivity in the classroom regarding student learning. Many students spoke of taking the knowledge provided through lecture or assignments in the classroom and using it in their jobs. There was a “passive” transfer of job training skills that seemed to cause the students to deactivate in the classroom and become passive recipients of the professors’ wisdom. The following students worked against that motif and were engaged in active learning.

Kurt responded to the question regarding his idea of a great college course. He spoke of thinking, analyzing, creating, and arguing his point. He also connected the active and engaged concept of taking one’s own notes rather than passively receiving a study packet:

The ideal course would involve a lot of writing, because writing is what forces a student to think and to analyze and to create his own ideas and argue them, and

⁴⁰Trentham, “Epistemological Development in Pre-Ministry Undergraduates,” 179.

⁴¹Long, “Evaluating the Epistemological Development,” 102.

communicate them effectively. Those are important skills rather than pick one answer out of four, or fill in the blank. Also the class should be quick paced with a lot of information. I think taking your own notes is critically important rather than being handed a fill in the blank packet.

Carlton was asked what most stood out to him. He responded by speaking at length about initiating further conversations with professors, reading from recommended non-textbook books, and using self-guided study on topics that were generated in class:

My college, at least in terms of education, there have been a few classes that really shaped me, but more than the classes, it's been professors and books. What I've really benefited from and I learn best is through conversation. And so being able to have meals with professors in the commons or going to their office, having conversations I have reading or working through, or things I was working through in the classes, or questions regarding ministry, those experiences have been particularly valuable and formative. I find a reading a book or listening to a lecture I can't engage or ask questions in the way I would like. So those conversations have been beneficial. Also the books I've been reading, and not necessarily the textbooks, books that have been recommended by professors or written by professors, or books related to topics in the class that I want to explore more in depth. A lot of my education being self-guided based on topics in lectures and class topics being fleshed out in conversations.

A great college course for Reed included the active engagement of “tearing up” each other's papers as a legitimate learning method. His view of lecture was that it is a passive activity while a hands-on approach allows him to engage:

Sure, some classes are lecture, some are just you meet once a week and the professor tears your paper up, you know, you read each other and tear each other's papers up, so I really enjoy the discussion type of learning. I do not like lecture style. It's good for some learners, but I'm more visual and hands on, because those go side by side and that's my learning style. Always has been and always will.

Convictional commitment. A “convictional commitment to one's own worldview—maintained with critical awareness of personal context, ways of thinking, and challenges brought to bear by alternative worldviews – through testing and discernment” was the fourth priority in Trentham's third category of personal responsibility for

knowledge–within community.⁴² Five Trentham students provided examples of these statements; a wide range of Perry positions was noted.⁴³ Long documented 7 students in this area.⁴⁴ Seven of my research students reflected this priority during interviews. Students were rated as Position 3 trailing Position 2 to Position 4 trailing Position 3 (233–344). As with “active and engaged learning” directly above, this priority reflected a consistently lower epistemological position since no student’s sample was rated at Position 4 stable or higher.

When Renee was asked about examining what she believed, she wove into her answer the experiences in Africa, biblical truth, and the struggle to find the foundation of truth needed for her commitment to the convictions she held:

And so I definitely had to re-examine what I believed but I found that the Lord is good and he is sovereign and I’ve also realized like it’s okay to ask questions of God, not to question him like who he is and like in authority but to ask questions and truly seek answers in him. That is something that being in Africa I had to do and then coming back here I know what I believe but how does this look like for me. And I think college really, they challenge you to question things, not just to take what you hear, it’s like, ‘okay well that’s the truth’ and so I mean I think in Act 17 when the church took what Paul wrote back and questioned and they did - took the scripture and made sure it was truth and so that is something that I’ve had to learn how to do. And I struggled with that at first but it’s been really good for me because it helped me to have a really firm foundation of what truth is, what the gospel really is and who Christ really is.

Cline also responded to changes since his freshman year. He connected his view of sin and grace which resulted in a more complete conviction of both:

I think when it comes to knowledge aspect of it, going through four years of undergraduate program in a pretty academically rigorous setting, I’ve learned a whole lot. I would say also like convictionally and belief wise, I just have a way

⁴²Trentham, “Epistemological Development in Pre-Ministry Undergraduates,” 179.

⁴³Ibid., 180.

⁴⁴Long, “Evaluating the Epistemological Development,” 103.

better understanding of my sinfulness and God's graciousness that I think I had a brief concept of that as a freshman but now I say it's more fully developed.

Reed was asked about things he needed to examine in college experience. He struggled with the church's view of homosexuality. He didn't believe the church's view was wrong, but believed that churches seemed to pick and choose the sin on which to focus. He spoke of the desire to live convictionally regarding all areas of Scripture, including those that might offend people. The example he chose to illustrate his point was obesity:

I, not too get too in detail with that, I, uh, people, uh, I was really struggling with the whole homosexual thing. Obviously I uphold the biblical view of marriage between a husband and a wife, but there's some things I see among the church and the Christian evangelical group that take and choose the things in the Bible that are kind of respectable. Not as hard surfaced as some of these things, you know it's kind of wrong but it's fine. For example, gluttony, that's a sin and people want to take and choose what to talk about in social arenas but if we are Bible believing Christians we need to believe the whole Bible. And there is a lot of things the Bible says is not what a Christian does. Not tolerance at all, because I don't like that word at all, but to think about ... I'm chasing a rabbit, but just to take the Bible for everything. It was a big struggle for me when people would say something about this area, but what about this one? The ethics class was a great help here. That really changed my worldview to be more what the Bible says and I want to live more like the Bible.

Two students connected convictional commitment to growth from freshman year to senior year. Coy was one who relayed his level of commitment as a senior versus a freshman:

Growing up in churches within organizations, I see the need for the gospel, the need for Christ-like walls more than I did now that I've gotten older, now that I've started to formulate my own opinions and thought processes. In seeing such a moral devoid, I've had to find a different thought process. In seeing the world as it is, I see the need for the gospel more now than I did before.

One factor that impacts the two priorities of "active and engaged learning" and "convictional commitment" was best summed up by Susan. When asked about her idea of a great college course, she described a specific class in which a professor tailor-made the

assignment for each student. This methodology of connecting with students may enhance the relationship portion of education, but may imply to students, as in this case, that there is no need to be ready to defend themselves since the professor is removing the possibility of confrontation. This lack of confrontation and lack of motivating students to become actively engaged in how they learn may explain why many students in my research displayed little active engagement or convictional commitment:

I love that she really does get to know me and every student and gets to know what their heart is, and what God is priming them to do, and she kind of tailors each assignment to the students. Like she'll give writing prompts, but with a bunch of options. So, I'm more of a creative person so she'll do like an 'imagine this' type of writing prompt so that we can totally see how we work the best.

Summary of Students and Ratings

My research group scored lower than Trentham's research group (3.15, 3.29 respectively, or .24 less).⁴⁵ Table 22 details the ratings for Perry positions and the number of occurrences of all Trentham's ten epistemological priorities in my research and from Trentham's research. The table reflects all 30 students in both studies. However, 83% (25/30) of my research students were rated at 334 or below; only 50% of Trentham's 10 liberal arts confessional Christian students reflected the same rating. Seventeen percent (5/30) of my students rated 344 or higher; 50% of Trentham's liberal arts students reflected this rating.⁴⁶ Southern Baptist university students occupied the lowest ratings as a whole within the table.

⁴⁵Seven students were quoted more than the remaining 23 students. The 7 students' ratings demonstrated a wide range of positional ratings. The 4 students quoted 4 times had ratings of 333, 334, 334, and 344; the 3 students quoted 3 times had ratings of 233, 334, and 334.

⁴⁶Trentham, *Epistemological Development in Pre-Ministry Undergraduates*, 158-161.

Table 22. Total average ratings per Perry position

	1	2	3	4	5	6	7	8	9	10	Total rated areas / average per student
Trentham priority											
Position 223 (1 student)	--	--	--	--	--	--	1	1	--	--	2 / 0.2
male (1)	--	--	--	--	--	--	--	--	--	--	-- / --
female (0)	--	--	--	--	--	--	--	--	--	--	-- / --
Trentham (0/0) ⁴⁷	--	--	--	--	--	--	--	--	--	--	-- / --
Position 233 (8 students)	3	2	5	1	--	1	1	3	2	2	20 / 2.0
male (6)	3	2	4	1	--	1	1	3	2	2	19 / 1.9
female (2)	--	--	1	--	--	--	--	--	--	--	1 / 0.1
Trentham (8/2)	1	--	1	1	--	--	--	2	4	1	10 / 1.0
Position 333 (6 students)	--	1	3	1	--	--	1	1	2	2	11 / 1.1
male (6)	--	1	3	1	--	--	1	1	2	2	11 / 1.1
female (0)	--	--	--	--	--	--	--	--	--	--	-- / --
Trentham students (3)	--	--	1	--	--	--	1	1	1	--	4 / 0.4
Position 334 (10 students)	3	2	6	2	2	3	4	5	4	2	33 / 3.3
male (4)	2	--	3	1	--	1	1	2	2	1	13 / 1.3
female (6)	1	2	3	1	2	2	3	3	2	1	20 / 2.0
Trentham students (7)	1	--	1	--	--	--	2	5	5	2	15 / 1.5
Position 344 (4 students)	1	1	3	--	--	1	--	3	3	1	13 / 1.3
male (2)	--	--	1	--	--	--	--	2	2	1	6 / 0.6
female (2)	1	1	2	--	--	1	--	1	1	--	7 / 0.7
Trentham students (5)	1	--	4	1	1	1	1	1	3	0	17 / 1.7
Position 444 (0 students)	--	--	--	--	--	--	--	--	--	--	-- / --
Trentham students (5)	4	4	5	2	1	2	--	4	4	1	26 / 2.6
Position 445 (1 student)	--	--	1	--	--	--	1	--	--	--	2 / 0.2
male (1)	--	--	1	--	--	--	1	--	--	--	1 / 0.1
female (0)	--	--	--	--	--	--	--	--	--	--	-- / --
Trentham students (1)	1	1	1	--	1	--	--	1	1	--	6 / 0.6
Position 455 (0 students)	--	--	--	--	--	--	--	--	--	--	-- / --
Trentham students (0)	--	--	--	--	--	--	--	--	--	--	-- / --
Position 555 (0 students)	--	--	--	--	--	--	--	--	--	--	-- / --
Trentham students (1)	1	1	1	--	1	--	1	--	--	1	6 / 0.6
Cannon All students / all ratings	7	6	18	4	2	5	7	12	11	7	79 / 7.9
Trentham All students /all ratings	9	6	14	4	4	3	5	14	19	5	83 / 8.3

⁴⁷The line item reflects the total of all Trentham students in the first number and only Trentham liberal arts confessional Christian students in the second number.

Table 23 illustrates the number of my research students who displayed statements in each of Trentham’s ten epistemological priorities and competencies. The number of occurrences range from 2 (criteria for assessing beliefs and values) to 18 (forms of thinking).

Table 23. Trentham’s ten epistemological priorities and competencies

Trentham’s epistemological priorities and competencies	Number of occurrences
Knowledge and Development	
1. God and revelation	7 / 30
2. Faith and rationality	6 / 30
Metacognition, Critical Reflection, and Contextual Orientation	
3. Forms of thinking	18 / 30
4. Wisdom-oriented modes of thinking	4 / 30
5. Criteria for assessing beliefs and values	2 / 30
6. Social-environmental influences	5 / 30
Personal Responsibility for Knowledge–Within Community	
7. Interdependence and reciprocity	8 / 30
8. Personal responsibility	13 / 30
9. Active and engaged learning	11 / 30
10. Convictional commitment	7 / 30

Recurring Themes

Long reported both his and Trentham’s research confirmed the primacy of relationships within Bible college students. Long stated that 80% of Trentham’s Bible college students and 67% of Long’s Bible college students responded with the primacy of relationships when asked what stood out most to them in their college experience.⁴⁸ All

⁴⁸Trentham, “Epistemological Development in Pre-Ministry Undergraduates,” 182. Long, “Evaluating the Epistemological Development,” 105.

but one of Trentham’s Bible college students who listed relationships spoke specifically about professors as the most significant.

Trentham found 70% of confessional Christian liberal arts university students cited relationships as the most significant aspect of college.⁴⁹ There was, however, a wider range of significant relationships listed by these students (professors, mentors, peers, church, etc.). Within my research group, confessional Christian university liberal arts students mentioned relationships only 37% of the time, barely half of Trentham’s findings for the same group. (This was essentially the same number who listed community as the leading significant factor in college.) It is possible when this group mentioned professors or development, some may have been alluding to the relationship inherent in those areas. However, when asked about the most significant experience in college, the actual word relationship or community was given by only about one third of this group.

Table 24. Students identifying significant relationships in college

	Bible College Relationships	Christian Liberal Arts Relationships	Secular Relationships
Trentham	80%	70%	70%
Long	67%	--	--
Cannon	--	37%	--
Sanchez ⁵⁰	--	--	77%

⁴⁹Trentham, “Epistemological Development in Pre-Ministry Undergraduates.” 182.

⁵⁰Christopher Sanchez, “Epistemological Development in Pre-Ministry Undergraduates.”

Relationship with professors. In my research, the faculty influence on students was quite strong. Professors were the most significant part of the college experience only 30% (6/20) of the time with men and 20% (2/10) with women. Other relationships included coaches and supervisors. This coincided with Trentham's research in that liberal arts students listed multiple sources of significant relationships.⁵¹ Trentham and Long both reported professors as being significant relationship sources for Bible college students.

Darryl summed up the view of several of his colleagues: "I would say what helped me the most was the passion of my teachers." Surena mentioned the guidance of her professors who gave "her advice as far as spiritual things, practical things, jobs, almost anything you can think of. I don't think I can name one professor who I have asked to help me and who has turned me down." Renee used the phrase "invested in me" several times in describing her professors. These statements came in context of two separate lines of questioning, "What stood out to you about your college education?" and "What do you most value about your college education?"

Relationship within dormitories. The "community life" theme arose quickly in the interviews, especially with women. To add value to Trentham's findings on the importance of relationships and community life, my research asked three specific questions regarding residence during college: "Where did you live during college?" "What kind of activities did you do with those in your residence area?" "What impact did those in your residence area have on your life?"

⁵¹Trentham, "Epistemological Development in Pre-Ministry Undergraduates," 185.

George spoke to the essential element of friendship: “The ideal college experience is living in the dorms. I lived in the dorms all four years and built that community which was ideal. I couldn’t have made it through without the friends.” Bertha added to his sentiment: “Your friends have the biggest influence on you. What they do, I do, and the stuff they do rubs off on me and the stuff I do rubs off on them.” Alexis spoke of her roommates having a heavy influence on her, giving her “a lot of insight into life.” Susan took the influence issue even deeper, stating, “I came to college a wreck and not really living a Christian life and they really helped me get my life back on track, helping me with the stuff I really needed to deal with and strengthened and supported me.” Sierra was the most enthusiastic about dorm life: “My experience was fantastic. I really loved it. I loved the community and interaction and just growing in that has been a lot of fun.”

Exclusivity of Christian campus. A common theme throughout the interview process was the lack of exposure to non-Christians. Fully half of confessional Christian students (15/30) spoke of having little interaction with those outside of their faith. Discussions and interactions with these students revolved around topics such as which version of the Bible is most accurate or to accept Calvinism or not. Other students noted that the exposure to non-Christians came only on mission trips, internships, or only early in their core classes. Once the students moved in to their religion/Bible classes, the exclusivity became even starker. Classes were taught on other religions, but interaction with other faith-based individuals was limited by the mono-belief culture of the Christian universities.

One trend regarding relationships with non-Christians was in connection to athletes in general and international student-athletes in particular. Sierra summed up what

several had mentioned as well: “We have a lot of athletes who come here just for athletics, instead of coming because it’s a Christian university.” Mike gave an interesting response regarding interaction with other faiths. During his early common core classes he “had a lot of opportunities to sit down and talk with international students” with differing faiths. However, as he progressed through his religion major, those interactions became less.

Mark spoke of interactions with different denominations in college, but not religions. “Worldviews yes. Faiths not so much. It’s primarily a Christian place here. Unless you’re talking about subcategories like Baptist and Methodist.”

Susan’s view was nearly opposite, but a minority experience:

I think that the thing about this college is that it is diverse in that not everyone is Baptist or whatever, there’s a lot of homosexuals, there’s atheists, that sort of thing. I remember especially in the first two years I was taking classes with all those people and I was thinking, ‘what is happening?’ Like the worldview was completely rocked cause I grew up home schooled and so I just know one view. It was really interesting to see different views and come to appreciate them, maybe not adapt them as my own but appreciate them and realize why I don’t agree with them.

Kerry mentioned he interacted with an Imam, Hindus, Mormons, and Jehovah Witnesses. Upon further probing, he revealed most encounters came off campus as a direct result of a world religion class assignment. The sole intention was to ask question to clarify the faith’s belief; relationship building was not part of the equation.

Jake spoke of his encounters with non-believers within a setting of nearly all Christian students:

Not much [interaction with other faiths]. I did toward the end when I was working in my internship, but at the school, I think that’s kind of one of the downsides, for the most part, everyone kind of believes the same thing I mean there are people at my school who weren’t Christians and I did interact with them . . . in fact it was almost refreshing to hear from someone who was really from, from someone who was vulnerable and honest as far as where they were at in their faith.

Coy echoed the same sentiment when he spoke of little contact with those who held different faiths until he began an internship. However, even those encounters were more of theological standpoints of Christians, not other faiths.

There was also the case of reverse exclusivity. One response came from a Native American student lamenting his experience with one instructor. Darryl believed the teacher could not understand his (Darryl's) cultural and spiritual background. This was in a state listing more than nine percent of its residence as enrolled tribal members:⁵²

Sometimes I think the teachers don't understand my culture so they don't understand me. I grew up on a reservation and our spiritual beliefs are different. Our culture is very different. It's a very violent place, dark spiritually and I haven't always felt like I connect on that level because growing up in a violent place isn't always the biggest difference, but the cultural difference that they expect me to have a certain quality that they can't understand is a part of the culture that is so foreign. . . . my teacher really tries to push me to, not to interrupt him but really speak up for myself, but it's in my culture to be reserved and listen to people, and let them fully finish a sentence before I speak. But he just doesn't understand that it's part of who I am to be respectful in that way.

Finally, regarding the idea of living on a self-contained campus in the midst of the real world just minutes from their university, Carlton lamented the seclusion of Christian students pursuing ministry degrees. When asked near the end of his interview if he would like to add anything not discussed yet, Carlton gave the following answer:

I think one thing that would be significant would be overall engagement with the community I live in. The college campus is in the midst of a larger community, and that larger community has had an impact on my formation and my education. Basically I wish the students would be forced more to go out into the community and be forced to be in the culture, be involved the arts, the movie nights on the square, or local non-profits outside the Christian sphere, and to even go to churches that would not be filled with our own students and go to churches of different traditions to be exposed to new things within this culture and the ethnicities in it. Frankly we are very sheltered, we live in a bubble and this is an impoverishing

⁵²Native American Indian is the largest demographic after the majority white population. There are thirty-nine registered tribes in Oklahoma. U.S. Census Bureau: Oklahoma, <http://quickfacts.census.gov/qfd/states/40000.html>, accessed July 10, 2015.

factor and that impoverishes our education and culture literacy, our ability to engage with non-Christians who do not come from our denominations. If you ask any number of people to describe someone who goes here, we are very ignorant to what historically Christianity has looked. There's just a lot practically, historically, culturally we don't know because we live in a bubble and that bothers me.

Purpose of seminary. The foremost reasons for attending seminary were the further preparation for ministry and the pursuit of deeper knowledge. Seven men and 4 women listed preparation for their field as the primary purpose of seminary. Ten men and 2 women spoke of wanting a deeper knowledge regarding theological issues. Only 1 of 30 men and 3 of 10 women listed furthering their careers, such as ordination, mission, field, or teaching. One man listed learning more about his spiritual gifts while 2 men weren't sure of the purpose.

Jerrie summed up what many seemed to say, but added a paying-it-forward component: "The things I learn in seminary will help me to do better the things God is asking me to do in my life, and also do the part of mentoring others to help them get to where someone helped me to get." Reed highlighted idea of preparation by tying it to the internship aspect, stating that he applied for an internship at a large church while he attends seminary in the fall. He appreciated the seminary's desire to meld knowledge and experience. Jayden spoke of working on a Ph.D.: "Seminary will help me in the intermediate step of my goal of teaching."

Need for ministry practicality. For many of the students, practical help for their current or future ministry was important. The theological studies were valuable, but not without the "how to" in the corresponding ministry. Students valued their professors' real world experience as well as their academic expertise.

Relating how his college experience would have been better regarding practical lessons, Duke made the following comment: “I least value information I was supposed to learn like study guide information because I remember very little of it.” Building on that thought regarding the need for ministry practice, Mark added, “I would say internship at a place. I don’t know how you would do that, get an assigned internship and get graded through an internship.”

Importance of mentors. Many students were quick to identify a mentor. However, 35% of men (7/20) described any mentor as so-so or non-existent. Of the men who listed a significant mentor, the vocation of the mentor was evenly split between faculty (54%, 7/13) and pastors (46%, 6/13). When asked about the main benefit, 70% (9/13) listed advice and counsel as the main topic of discussion, 31% (4/13) listed talking and encouraging. One of thirteen (8%) listed help landing a job.

The overwhelming majority of women (90%) confirmed a mentor relationship. Of the women who listed a significant mentor, the vocation was split between faculty (67%, 6/9), supervisor (22%, 2/9), and coach (11%, 1/9). The majority of women (77%, 7/9) spoke of the main focus with their mentor as being listening or encouragement, 11% (1/9) each gave keeping on track and helping to live life on mission.

Table 25. Students Using a Mentor

<i>Use of a Mentor</i>	<i>Men</i>	<i>Women</i>
	65%	90%

Table 26. Vocation of Students' Mentors

<i>Vocation of Mentor</i>	<i>Men</i>	<i>Women</i>
Faculty	54%	67%
Pastor or Pastor's Wife	46%	--
Supervisor	--	22%
Coach	--	11%

Table 27. Main Topic of Discussion with Mentors

<i>Main Focus of Discussion</i>	<i>Men</i>	<i>Women</i>
Advice and Counsel	70%	--
Listen and Encourage	23%	77%
Job Placement	7%	--
Keeping on Track	--	11%
Live Life on Mission	--	11%

My research mirrors both Trentham and Long's research. Twenty-two students in my research used mentors, the same number of students as Long's research.⁵³ This number was similar to Trentham's research where 26 students used mentors.⁵⁴

Willingness to participate in research. I was surprised by three aspects of the participant-gathering procedure. First, neither the low level of positive response nor the high level of non-response from academic and student deans was expected. Even within universities denominationally affiliated with me, the positive response rate (18%) and the non-response rate (82%) were unanticipated.

⁵³Long, "Evaluating the Epistemological Development," 106.

⁵⁴Trentham, "Epistemological Development in Pre-Ministry Undergraduates," 183-84.

Second, while the response rate of students contacted was only 34%, most of the 35 willing students responded within one hour to two days of the first request. A few more did so after a second request, but even then very quickly. Two of the earliest responding students did not qualify upon further examination. I was able to tell at least three students they would be backup interviews if a previous participant was not able to complete the interview. All thirty-five participant forms were returned within fifteen days of the start of the search for participants.

Finally, students displayed an obvious enthusiasm to participate and a gratefulness for being asked to share their experiences. It appeared only Sam (334) displayed skepticism, having his mentor with him during the interview. While he may or may not have had the freedom to speak openly, especially about what he least appreciated or would change about his college experience, it appeared the other twenty-nine students felt complete freedom to allow me to probe.

It also appeared, without any method to verify, that answers were unfiltered. The participants did not appear to hesitate in providing a clear and often specific critique regarding questions referring to negative issues (“What did you least enjoy?” “What would you change if you could?”).

Evaluation of the Research Design

The research design I used has been tested by two previous researchers, including Trentham who produced the original interview protocol in 2012. Long utilized the same basic interview protocol two years later, proving its legitimacy as an effective research tool for this study. In addition, Moore of the CSID was familiar with this

protocol when scoring the current interviews. His judgment may have been enhanced by his previous work using this same interview motif.

The research protocol was also adaptable regarding secondary lines of research. My interests include the effect of secondary education and college residency on the epistemological progress of the students I interviewed. While this area proved not to be a viable topic in relation to multiple types of secondary education or multiple types of college residency, I was able to garner valuable research associated with these areas. This interview protocol will be effective with purposefully selected students who fit these criteria.

The strength of this study was also found in the live discussions and the repeated listening to the recorded interviews. Not only did the actual verbiage give clues to the progress of students, the inflections and nuances also provided valuable clues to the strength of many statements. Student personalities became apparent, allowing me to interact on a more casual level. I believe this helped bring depth to the interview.

Relative to the discussion of personalities above, many students desired to provide a look in to their experience. Few students were reluctant to speak once they committed to the interview process and the first question or two was completed. Only one student had a “guardian” present (his college mentor). Also, one student began the dialogue asking me to explain and justify my interview with him.

Several weaknesses of this research became evident well in to the process. First, six of the ten universities were Baptist, resulting in twenty-one of the thirty students interviewed attending Baptist universities. Too few denominations and their students were represented in this study.

Second, a lack of racial diversity became evident. Twenty-nine students were Caucasian; one student was Native American. As a result, no epistemological progress was researched in relation to the various ethnics groups in confessional Christian colleges across the country. Ethnic colleges were among those contacted, but no follow up was conducted to encourage their participation. This may have been a mistake on my part.

Third, my research group contained only ten female participants. This is a greater number than Trentham and Long, however, it is still only one-third of the research group. This continues to be a weakness not so much in this research design, but in the selection process. More effort needs to be made to include female patterns of epistemological progress.

With just a few corrections in selection of participants, the Trentham Interview Protocol will continue to prove itself to be legitimate and useful tool in the study of college student epistemological progress. The analysis by the CSID will also continue to be a valuable tool in this process.

CHAPTER 5

CONCLUSIONS

This research focused on the epistemological development of students attending confessional Christian liberal arts whose declared intention was to enter seminary or the mission field directly following graduation. The research was a deepening of John David Trentham's research along cross-institutional lines. Precedent literature was reviewed regarding the Perry Scheme. Perry's theory and work was connected to various theorists, both biblical and secular. A qualitative study of thirty graduating students was conducted and transcribed by me prior to scoring by William S. Moore of the Center for the Study of Intellectual Development (CSID). I also evaluated the thirty transcripts. Implications, applications, limitations, and further research are discussed in this chapter.

Research Purpose and Question

The epistemological development of confessional Christian liberal arts college students was the focus of this research. The replication study centered on Trentham's Ph.D. dissertation research question: "What is the relationship, if any, between the type of institution a pre-ministry undergraduate attends and progression through Perry's positions of intellectual and ethical development?" My research dealt with one of Trentham's three institution types, confessional Christian liberal arts colleges and universities.

Research Implications

Nine implications emerged from the research in connection with the research question. Each one is discussed in the following two sections.

1. Public high schools were attended by all but four students. Three students were home schooled and one student attended a private, religious school.
2. The majority of confessional Christian liberal arts pre-ministry students made their commitment to the ministry prior to college.
3. Youth ministry was the most frequent present or recent ministry position of the majority of confessional Christian liberal arts university students.
4. On-campus residency was the enthusiastic choice of all but one confessional Christian liberal arts student.
5. Community–friendships inside and outside of class, and especially within the dormitories–is essential to college success.
6. The confessional Christian liberal arts university students are overwhelming very committed to ministry after graduation. Those not committed were a very small minority.
7. Professors were held in high esteem by most students; many male students viewed professors as their key mentors.
8. Mentors were important to a large majority of confessional Christian liberal arts university students, however, the subject of discussions with mentors was very much different for male and female students. A majority of male students sought advice; a majority of female students sought conversation and dialogue.
9. Pre-ministry graduates at confessional Christian liberal arts universities progress through the Perry Scheme positions in a similar manner as Trentham’s overall study, although slightly slower.

Implications Drawn from Form Data

Four implications stood out from the Dissertation Participation Form. First, a vast majority of students attended public high school (87%). Three students were home schooled and one attended a private religious high school. The size and atmosphere of the

public high schools varied considerably. There was no discernable commonality as a whole regarding size or atmosphere of the high schools.

Second, twenty of the participating students committing to ministry did so prior to attending college (67%). A large number of students made that commitment during a summer youth camp. Trentham's research revealed that 60% of confessional Christian liberal arts students committed to ministry prior to college. Trentham also recorded 50% of Bible college students commitment to ministry prior to college, but only 10% of secular university students committed to ministry during college. Long reported that 60% of Bible college students committed to ministry prior to entering college.

Third, most of the participating students were directly involved with a ministry prior to and during their college years. Youth ministry was the clear majority position within the church held by these students (17). Children's ministry was a distance second. Event ministries, including vacation Bible school and summer camps, were the minority.

Fourth, every participating student except one lived at least two years in the dormitories on campus. The only student not living on campus continued to live with his parents. Other than the home-based student, not one of the students interviewed lived in non-campus housing during the first two years of the college experience. While no conclusion may be drawn from a single student, it is interesting to note that he was scored at the lower end of the MID rating, 233.

Implications Drawn from the Research Questions

Five implications were found during the interview process. First, community was essential to the college experience and retention leading to graduation. Trentham

found that “nearly three-fourths of responses” regarding what stands out the most about the college experience “were predicated on the primacy of relationships.”¹ Trentham reported that Bible college relationships centered on professors. Secular university students viewed as essential an authentic Christian community. Coinciding to a large degree with my research, Trentham found relationships within confessional Christian college liberal arts students included “professors, mentors, peers, church, campus life connections, and dating relationships.”²

My research found campus life connections, especially within the campus residence venue, was one major factor to a positive experience. Students frequently mentioned such things as deep discussions with those in their dormitories, prayer groups, heart-to-heart conversations, encouragement, and making of life-long friendships. Many students mentioned the idea of campus housing costs as expensive, but worth paying in order to build community.

Second, the overwhelming majority of participating students listed themselves as fully or very committed to ministry after graduation. This may have included a local church ministry position, missionary service, or seminary enrollment. Very few were slightly committed or non-committal. One student’s commitment declined during his college years.

Third, a majority of the study participants held their professors in high esteem. Trentham found that confessional Christian liberal arts university students “reported

¹John David Trentham, “Epistemological Development in Pre-Ministry Undergraduates: A Cross-Institutional Application of the Perry Scheme” (Ph.D. diss., The Southern Baptist Theological Seminary, 2012), 214.

²Ibid.

having relationships with one or more of their teachers that were personal, substantive, and dynamic.”³ My research students spoke of their professors as well respected, fully informed, and caring toward the students. One student spoke of professors taking her “under their wing.” Another spoke about having meals with professors in the commons, relating that conversations benefited the learning the process. One student connected the relationship with faculty and the student’s own peers with preventing his failure in college. This was echoed by others who believed the professors’ encouragement to students to think on their own was critical to student success. Overall, there was a common thread of faculty care for the students as the faculty pushed the students to excel in their personal and academic lives.

This may be the reason the fourth implication regarding mentors in college included a large number of professors. Trentham found near unanimity with his research subjects confirming a significant personal mentorship during college.⁴ Faculty mentors were significant for the majority of students in my study, albeit for differing reasons. Men used mentors mainly for counsel and advice; women used mentors mainly for discussion, dialogue, and encouragement.

Finally, the pre-ministry confessional Christian liberal arts students progressed on the Perry Scheme scale in similar manner to the other studies completed by Trentham, Long, and Sanchez, although the overall rating was slightly lower. My research group had only one Position 2 student; there were not any Position 5 students.

³Trentham, “Epistemological Development in Pre-Ministry Undergraduates,” 214-15.

⁴Ibid., 214.

Research Applications

This study dealt with the epistemological development of undergraduate pre-ministry at confessional Christian liberal arts universities. The context was the Perry Scheme developed in the 1950s by William Perry, a Harvard professor. In addition, Trentham's prior research using an equal number of students from Bible colleges, secular universities, and Christian confessional liberal arts universities was consulted for comparisons and contrasts. As a result, four groups will benefit from this research.

First, this research will help college instructors understand the epistemological path students use to mature in their educational maturity. It will aid in the understanding that students enter with one position of learning and need to move to a more mature level. This can be enhanced with knowledge of how students process information.

Second, my research will help college instructors understand the importance of their own part in the epistemological development of their students. Understanding the mindset of entering freshman, or knowing the students' foundational epistemological stage, will aid in the development of student progress from duality to critical thought. Being reminded of the need for students to process information to make it their own, instructors will be better able to produce course level appropriate lesson plans and assignments aiding this process.

Third, this research will aid retention officers in recognizing that community life on campus and relationships with professors are the two leading significant issues for a great number of students. Questions specifically exploring residence life revealed the importance of life on campus as lived in the dormitories. Campus life activities and building lifelong friendships were two essential elements of retention and student

personal growth. With nearly the same rate, healthy relationships with professors who invest themselves in the lives of students reap tremendous reward for the students.

Fourth, parents and pastors need to understand the change in thinking coming to students as they progress through the college years. They need to especially understand the route from duality to critical thought and personal convictions is not synonymous with rejection of parental or church values. This pattern is simply the student taking what he has been taught, question and/or defend it, and finally adopting it or a modified view as their own. Parents and pastors must recognize this as a healthy journey that will in turn allow these students to become effective, convictional leaders and educators of the next generation.

Research Limitations

There are several limitations to this research. First, only a small fraction of confessional Christian liberal arts colleges and universities were sampled. The International Association of Baptist Colleges and Universities represent nearly thirty institutions. The Association of Biblical Higher Education accredits or affiliates with more than two hundred faith-based colleges, including many confessional liberal arts colleges and universities. In addition, other accrediting agencies including The Association of Theological Schools (ATS) and The Transnational Association of Colleges and Schools (TRACS) represent Christian colleges. The research represented or referenced only a small number of these institutions. Therefore, it may not be possible to make broader assumptions about epistemological progress of all Christian students.

Second, there seems to be oversampling of Baptist institutions, especially Southern Baptist institutions. Of the ten institutions represented, six were Baptist; five of

these six were Southern Baptist. As stated above, there are numerous Christian-based institutions representing many denominations. Pentecostal, Assembly of God, Christian Missionary Alliance, and other theologically bent groups are unrepresented.

Third, with rare exception, students in this research were Caucasian. Race was not queried; however, it seemed obvious during interviews that the students represented only one race. African-American, Hispanic, and Asian students, as well as affiliated institutions, were not represented. This was not intentional; neither was it addressed in the early stages of data collection.

Fourth, researcher bias was possible, although not intentional. In addition, scoring of interviews by William S. Moore may be somewhat subjective. Hence, depending on circumstances, the scoring may have been affected to some degree.

Finally, although this research contained a higher percentage of female participation than studies by Perry, Trentham, and Long, only one-third of the interviewees were women. In addition, by using only the minimum acceptable number of participants for a qualitative study, interviewing only ten women may weaken the study.

Further Research

It is clear that this study was predominantly Caucasian, most of whom seemed to be somewhere near middle class. Further research focusing on African-American, Hispanic, and Asian colleges and universities should be conducted.

Gender continues to be an issue with Perry research among pre-ministry students. Most ministers who attend seminary within evangelical circles have traditionally been male. Special efforts need to be made to locate and research the epistemological development of female ministry workers.

Residence life was a significant yet small focus of this research. It yielded results that signify a need for further research regarding both academic and social development, as well as retention of students. Furthermore, many students mentioned the high cost of campus residence. A study focusing on residence life costs versus financial issues related to retention may yield helpful information.

Research regarding the most valuable ways in which instructors may interact to enhance student learning and retention might be helpful. In studies by Trentham and Long, as well as the current research, faculty members played a tremendous role. Helping these instructors better understand their role beyond the lecture or giving of assignments may prove to be beneficial.

Mentorship was important to many students. However, it was clear the purpose of mentorship was significantly different for men and women. Further research regarding the roles of mentors for men and women, as well as how those mentors are selected, may enhance the abilities of universities to best meet the needs of both sexes.

Finally, the Perry Scheme analysis used with incoming freshman in the same areas as the research involving Trentham's three types of institutions would illustrate the changes in culture of graduation high school seniors.

APPENDIX 1

THESIS STUDY PARTICIPATION FORM

Modifications were made to this form to attain information regarding high school education, college residence type, and commitment to ministry.¹

Instructions:

In Section 1, read the “Agreement to Participate” statement and confirm your willingness to participate in this study by checking the appropriate box and entering the requested information.

In Section 2, provide responses to each of the prompts and questions by entering your information in Section 2. Please enter responses for every question, even if “not applicable” is most appropriate. [Note: Since most participants have already graduated from college, most of the prompts and questions below are in past tense. If you have not yet graduated, simply consider the prompts and questions in present (or, in some cases, future) tense.]

[Section 1]

Agreement to Participate

The research in which you are about to participate is designed to explore the impact of the college experience at different types of schools on the personal development of pre- ministry undergraduates. This research is being conducted by Bruce Cannon for purposes of thesis research. In this research you will complete the form below and participate in a personal interview by telephone. Any information you provide will be held strictly confidential, and at no time will your name be reported, or your name identified with your responses. Participation in this study is totally voluntary and you are free to withdraw from the study at any time.

By your completion of this form and the subsequent personal interview, and by checking the appropriate box below and entering the requested information, you are giving informed consent for the use of your responses in this research.

I agree to participate

I do not agree to participate

¹John David Trentham, “Epistemological Development in Pre-Ministry Undergraduates: A Cross-Institutional Application of the Perry Scheme” (Ph.D. diss., The Southern Baptist Theological Seminary, 2012), 224.

Name: _____
E-mail: _____
Date: _____

[Section 2]

Preferred name: _____

Year of birth: _____ Gender: _____

Name and location of the college from which you graduated: _____

Did you attend another college or university other than the school graduated from? ____
If so, please give the name the school(s) and the year(s) attended:

Month/year of graduation: _____

Degree(s) awarded (e.g., BA/BS, major(s), minor(s)): _____

Do you plan to attend seminary (even if not immediately after graduation)? _____

At which church did you maintain active membership or involvement during college
(name and location)? _____

What are some particular areas of ministry or service in which you were personally
involved at your home church during college (e.g., youth ministry, social ministries,
etc.)? _____

What other church, para-church or humanitarian ministries (if any) were you involved in
during college (e.g., BCM, Campus Crusade, Habitat for Humanity, etc.)?

When did you decide to pursue vocational ministry? (Before or during college? During
which year of college?)

Where did you attend high school?

How committed are you to fulfilling your stated goal of vocational ministry?

Where did you live while in college?

APPENDIX 2

STANDARDIZED PERRY INTERVIEW PROTOCOL

This form is used verbatim from the original Trentham study in an effort to replicate the study.²

334. What is your view of an ideal college education? How, if at all, should a student change as a result of that educational experience?

2. Have you encountered any significant differences in beliefs and values in your peers in college or other people you've met in your experiences here? What is your reaction to this diversity; how do you account for these differences? How do you go about evaluating the conflicting views or beliefs you encounter? How, if at all, do you interact with people who have views different from your own? [Note: The focus here is on the process of evaluating and/or interacting, not on specific beliefs or reactions per se.]

3. Facing an uncertain situation in which you don't have as much information as you'd like and/or the information is not clear cut, how do you go about making a decision about what you believe? Is your decision in that situation the right decision? Why or why not? If so, how do you know? [Note: Try to get the student to describe the process of coming to a judgment in that kind of situation, which in may involve generating a concrete example of some personal relevance but not too emotionally-charged—preferably an academic-related context, related if possible to their major field.]

4. How would you define “knowledge”? How is knowledge related to what we discussed earlier in terms of a college education? What is the relationship between knowledge and your idea of truth? What are the standards you use for evaluating the truth of your beliefs or values? Do your personal beliefs/values apply to other people—in other words, are you willing to apply your standards to their behavior? Why or why not?

Follow-Up Probes in Each Area

1. How have you arrived at this particular view of these issues? Can you remember when you didn't think this way and recall how your view changed over time?

²John David Trentham, “Epistemological Development in Pre-Ministry Undergraduates: A Cross-Institutional Application of the Perry Scheme” (Ph.D. diss., The Southern Baptist Theological Seminary, 2012), 226.

2. To what extent do you think the view you have expressed is a logical and coherent perspective you've defined for yourself? Alternative perspective considered?

3. How likely is it that your view will change in the future? If you think it's likely to change, what kind of experiences or situations might produce such change?

APPENDIX 3

ALTERNATE PERRY INTERVIEW PROTOCOL

This form is used verbatim from the original Trentham study in an effort to replicate the study.¹

(This protocol is particularly useful for probing for post-position 5 reasoning.)

334. **Looking Backward (College Learning Experience)**

We're interested in learning how you view your overall educational experience in college. Later I'll ask you some specific questions, but for now, I'd just like you to tell me what seems important to you as you think about it—what stands out to you as you think about your experience here?

Alternatives: What about your college experience has influenced you the most—what stands out in your mind that has really made an impression on you and influenced you? Or What overall sense do you make of your educational experience in college?

Probes (request examples, tie together threads of narrative, relate to earlier experiences):

Who has been important to you in your learning? (peers, faculty/administrators, family, others) How have you changed in the way you approach learning since you've been in college?

How would you describe yourself—in general, and specifically as a learner?

Are there any ways in which you are different than before as a result of your experience in college? [Possible follow up: If you could have your way, what kinds of changes in yourself would you have hoped to see as a result of your educational experience in college?]

2. Clarifying Convictions

Does it seem to you that usually there is only one opinion, idea or answer that is really right or true, or do you think there can usually be more than one? Explain.

¹John David Trentham, "Epistemological Development in Pre-Ministry Undergraduates: A Cross-Institutional Application of the Perry Scheme" (Ph.D. diss., The Southern Baptist Theological Seminary, 2012), 227.

Follow-up Probes (variable, depending on what seems appropriate with student):

- What makes an opinion right? Are all opinions right? Can you say some opinions are better than others? How do you know? In terms of what makes an opinion “right,” what role do you think experts and authorities need to play?
- Is it important to obtain support for your opinions? What kind of support?
- Do you think your outlook on this diversity of opinions has changed in recent years? What/who led to this change?

It seems that with all the various ways of looking at things and all of the different opinions that exist, there’s a very confusing variety of choices to make. Do you have any strong convictions to help guide you in these choices? Could you describe an example? [If necessary, define “conviction” as a point of view that one develops about an issue or subject over time, not an unexamined belief one has grown up with or inherited from one’s parents or upbringing]

Follow-up Probes:

- How did you come to hold this point of view? Can you describe how your thinking developed? What alternatives did you consider in this process, and why did you discard them?
- Do you feel or have you ever felt that you would like to convince others of your ideas?
- What do you think when others have strong convictions and try to convince you? If someone attacks your belief [about opinions], how do you defend yourself?

Optional questions:

React to each of these statements, describing how and to what extent they apply to you:

- “I never take anything someone says for granted. I just tend to see the contrary. I like to play the devil’s advocate, arguing the opposite of what someone is saying, thinking of exceptions, or thinking of a different train of logic.”
- “When I have an idea about something, and it differs from the way another person is thinking about it, I’ll usually try to look at it from that person’s point of view, see how they could say that, why they think that they are right, why it makes sense to them.”

3. Looking Forward (Goals for future and career)

What are your educational or career goals at this point? How have your educational or career goals changed since you started—for instance, do you have any goals now that you didn’t have before, or do some you started with seem less worthwhile or realistic?

In what ways has the college specifically contributed to the achievement of your goals up to this point?

How do you think your experiences or accomplishments in college will connect or relate to what you do after college?

*In each question set, explore for:

Synthesis/integration—pulling threads of narrative together

Connection-making—between ideas, between discipline and personal experience, etc.

Self-reflection—e.g., understanding of self-as-learner, as person considering career choices, etc. Meta-thinking—analysis of own thinking over time (i.e., how it's changed/evolved)

APPENDIX 4

TRENTHAM INTERVIEW PROTOCOL

This form is adapted from the original Trentham study in an effort to replicate the study. I have added areas to explore additional data. These areas involve residence during the college years and type of secondary education experienced by the participants.¹

Questions regarding overall development through the college experience (RQs 1, 2)

Thinking back through your college experience overall (to this point), what would you say most stands out to you?

How would you compare yourself as a college freshman with yourself now? (Probes: ...with regard to knowledge? Learning? Convictions? Personal maturity? Personal faith? Relationships?, etc. Also: Do you feel like you've "grown up" as a result of being in college? How so?)

In what ways, if any, has your college experience prepared you for life after college? (Probes: How has your specific major prepared you for the future?)

Have you had someone who has been a personal mentor to you during college (e.g., a teacher, advisor, older adult, or minister)? (If yes...) What was the impact or benefit of that relationship for you? (Probe: Do you think those types of relationships are important for college students?)

Questions regarding perspectives on knowledge and learning (RQ 2)

What is your view of an ideal college education? How, if at all, should a student change through the college experience?

What is your idea of a great college course? (Probes: What do you gain from it? What is the role of the teacher? What is the role of the students? What type of assignments are most beneficial?)

• Related (if necessary): What do you most value about the education you received in college? (Probes: What do you least value? What would you change if you could?)

¹John David Trentham, "Epistemological Development in Pre-Ministry Undergraduates: A Cross-Institutional Application of the Perry Scheme" (Ph.D. diss., The Southern Baptist Theological Seminary, 2012), 229.

• Related (if necessary): Did you get to know many of your professors through college? How would you describe your relationship with the teacher(s) you got to know best? (Probe: What would you say are the top attributes of the best college teachers? What sort of relationship would you most like to have with your professors in seminary?)

Why do you feel it's necessary for you to go to seminary? (Probes: How did/will you choose the school? What's your purpose in obtaining a seminary degree? What do you hope to gain?)

Questions regarding the impact of encounters with diversity (RQ3)

Through college (in your classes, especially), did you encounter ideas which challenged your (Christian) beliefs and values? How did you (and how do you now) react to that sort of challenge? Is this something you value, looking back? Why? (Probes: Do you feel these types of challenging encounters are important? How so? How do you go about evaluating diverse and conflicting views when you encounter them?)

Through college, did you commonly interact with people who held different faiths or worldviews than your own? Did this sort of interaction occur in your classes? What impact did these types of interactions have on you, personally?

In your coursework, were you exposed to multiple disciplines of study (sciences, social sciences, humanities, etc.)? Do you feel this was a benefit to you, personally, and also in preparation for the future? How so?

Where did you live during most of your college years (home, dormitory, off campus, etc.)? Tell me about your living experience during your college years. What sort of influence did those around you have in your life?

Describe your relationships and activities with those in your residence area.

Knowing what you do now regarding life during college, where would you advise students to live?

Questions regarding personal commitment (RQs 1, 2)

When you face a situation where you have to make a decision about an uncertain or difficult issue, and you don't have as much information as you'd like or the information is not clear cut, how do you go about making a decision about what to believe or choose?

•Related (if necessary): How do you go about arriving at your own positions on core issues and secondary issues, especially when it's hard or impossible to find definitive answers? (Probe: How do you decide on important-but-debatable issues when there are multiple opinions that seem equally valid (e.g., in Mikeers of theology, practices in the church, etc.?)

•Probe here about the relation of "proof" to personal knowledge/beliefs/faith.

Thinking about your Christian faith...were there times through college that you felt like you needed to "examine what you believe"? (Probes: Even core beliefs? What prompted that? Was this ultimately a positive or negative experience for you?)

Tell me about your “calling to ministry.” (Probes: How did you make the decision to commit to vocational ministry? Did you ever consider a different career path? Were there times through college when you questioned or doubted your decision or your ministerial calling in general? How did you deal with that? Do you think about your commitment to ministry differently now than you did at first?)

Questions regarding secondary education (RQ 4)

Describe your secondary school setting (Probes: Was it a public school, private school, religious school? If so, what size? Where you home schooled? Were you involved in a home school coop?)

How would you describe the atmosphere of your high school? (Probes: Was your school casual and enjoyable, rigid and highly disciplined, religiously tempered, etc.?)

Describe the ethnicity of your classmates. (Probes: Were you in contact with international exchange students? Where were you in regard to socio-economic status of your peers?)

Final question

To wrap this up, I’ve asked you questions about several different experiences and issues...but is there anything I haven’t asked you about that you would say has been really significant or life changing through your time as a college student?

APPENDIX 5

CSID INTERVIEW SCORING PROCEDURE AND REPORTING EXPLANATION

In order to replicate Trentham's study as closely as possible, the following material is used from his original research.¹

Interpreting MID Ratings

The **MID**² is scored by raters who have trained extensively in the general Perry scheme and the specific rating process developed over the years by Knefelkamp (1978) and CSID (Knefelkamp et al, 1982). Because the instrument is designed to assess the part of the Perry scheme that we believe to be primarily cognitive/intellectual in focus, **MID** ratings range along a theoretical continuum from position one through position five. In practice, position one perspectives are not found (it was a hypothetical and conceptual extension of the model even in the original study), and thus the actual **MID** ratings will range from positions two through five.

The Rating System

Individual ratings on the **MID** are represented by a 3-digit number which reflects the dominant and (if necessary) the subdominant position/s rated in the essay. This system extends the Perry scheme continuum from 4 steps—that is, positions 2, 3, 4, and 5—to 10 steps: 222, 223, 233, 333, 334, 344, 444, 445, 455, & 555. Solid ratings (like 333) reflect a “stable position” perspective; the two steps between each stable position indicate transitional essays. As examples, 223 represents “dominant position 2 opening to position 3,” while 233 indicates “dominant position 3 with trailing position 2.” The ratings thus reflect an assessment of the cognitive complexity displayed by the essay with respect to

¹John David Trentham, “Epistemological Development in Pre-Ministry Undergraduates: A Cross-Institutional Application of the Perry Scheme” (Ph.D. diss., The Southern Baptist Theological Seminary, 2012), 234.

²“MID” refers to the Measure of Intellectual Development, a research instrument that obtains data from participants using essay prompts. The CSID's scoring procedure and method of classifying participants' epistemological positions according to the Perry Scheme is essentially identical for data collected using the Perry interview protocol and data collected using the MID. The information presented here includes relevant portions of a document that was provided to the researcher by the CSID.

classroom learning along a linear, simple stage model continuum (see Rest, 1979, *Judging Moral Issues*, for a thorough discussion of simple vs. complex cognitive stage model assumptions).

Data Reporting

For reporting purposes, the MID ratings can be treated in either (or both) of two ways, as categorical data or as continuous data. Some statistical purists—often found on doctoral dissertation committees—insist that a measurement scale like the MID can only be treated as categorical data. Other experts, however, including respected psychometricians like Jum Nunnally (*Psychometric Theory*, McGraw-Hill, 1967), argue that such a strict interpretation is too rigid and not meaningful in practical terms for psychological scales. (For a more in-depth discussion of this topic, see the MID instrument manual.) Depending on the purpose and the audience of the research, the scores can be effectively used either way, and often are reported both ways for comparison purposes.

334)	Grouping categories:	
222 & 222(3) =	Position 2	444 & 444(5) = Position 4
223 & 233 =	Transition 2/3	445 & 455 = Transition 4/5
333 & 333(4) =	Position 3	555 = Position 5
334 & 344 =	Transition $\frac{3}{4}$	

Report the frequencies and percentages of students in each of the categories. These figures can then be converted to a histogram if desired, and in a longitudinal project, “profile shifts” to the right on this kind of chart indicates upward movement. For a good example of this kind of analysis, see Kirk Thompson’s 1990 paper, available from the Perry Network, on Evergreen State College data.

2) Continuous data:

Convert the rating scores to numbers as follows:

222 & 222(3) =	2.0	344 =	3.67
223 =	2.33	444 & 444(5) =	4.0
233 =	2.67	445 =	4.33
333 & 333(4) =	3.0	455 =	4.67
334 =	3.33	555 =	5.0

Once the ratings are converted to these numerical scores, they can then be manipulated statistically however you choose (mean, standard deviation, etc.)

*“Glimpse” ratings (e.g., 333(4); see the rating notes on the following page for more details) can be treated numerically as a separate sub-stage. In the case of 333(4), for instance, it could be scored as a “3.17” (half of $\frac{1}{3}$ a position, in effect). Conceptually, I would argue that these essays are different from 333 essays and the latter approach is preferable; practically, unless your sample has a lot of these ratings, it probably doesn’t make much difference.

*In general, traditionally-aged students enter college in the position 2-position 3 transition and exit college 4 (or so!) years later in the position 3-position 4 transition. There is a modest but statistically significant effect by classification and by age, with the former seeming to be a stronger factor (with a great deal depending on the nature of the curricular interventions and learning experiences occurring in those intervening years). There seems to be no consistent difference by gender. Demographic data on ethnicity has been collected inconsistently over the years, and has become increasingly problematic in terms of data quality and interpretation, so at the present no comparative data are provided for that dimension.

Rating Summary Sheet Notes

Below is a general overview of the kinds of “rater shorthand” notes and comments you might see on the summary sheet of your data.

* BP: “Ball Park” rating; there is insufficient data, or insufficiently clear data, for us to provide a full research rating with confidence—but enough for us to approximate, or “ballpark,” a rating. People use such ratings in different ways; with formal research (and an adequate sample!), you might want to exclude them from the analysis. For most informal research purposes, however, it is reasonable to include BP ratings. In converting these ratings to continuous data, treat them as a half-stage; a “BP 2/3,” for example, would convert to a “2.5” score.

* Glimpse: rater’s notation that accompanies ratings like 333(4). Such a rating indicates that while the essay is seen as reflecting stable position 3, there is a hint, or “glimpse,” of the next position (in this example, position 4) that is noted but not given sufficient weight to warrant a +1/3 position increment. We believe these essays are distinct from 334 or 333 essays, but you may prefer to simply consider them as 333 essays. You may also see 222(3) or 444(5), but these are less common.

* Unr: Unrateable; we do not think the data sample is adequate to provide any kind of rating. The reasons vary; sometimes students don’t write the essay, sometimes they are simply too brief, and sometimes they either don’t take the task seriously or they tangent in ways which make rating impossible. The percentage of Unrateables in samples is usually only 1-5% at most.

* Flooded: there seems to be a strong emotional tone taken in the essay—usually in glowing positive terms (a professor, most often, who obviously had a powerful personal influence on the person), but sometimes harsh and negative as well. Such emotional “flooding” tends to obscure the cognitive rating, so we note its occurrence as a possible caution in reviewing the rating. Flooding does not make the data automatically unrateable, but it can make the essay rate as less complex than it might otherwise be.

* Early: essentially the same notion as “Glimpse,” but on the “other side” of the position; that is, a 333 (Early) means that the essay is seen as borderline between a 233 rating and a full 333 rating. As with the “glimpse” notation, this reference is mainly useful for our

rating and criteria research, and we do believe this is a distinct set of essays—but it's probably preferable to include them as 333 essays rather than a separate category.

* 2/4 or 3/5 : indicates that one or both of the raters noted this essay is an example of a rating split problem—a problematic essay that can be interpreted, for example, in the case of a “2/4” split, as being on either the position 2 or position 4 side of position 3.

Conceptually, these splits result from the fact that there are close parallels between positions 2 and 4 and between positions 3 and 5 in the Perry scheme; practically, they give raters headaches! These essays are noted to allow us to go back to do closer analyses on these essays to help refine our rating criteria and decisions.

* Q : simply means that we think the essay in question is quotable, unusual, or for some other reason worth noting. You can use these signs to pull out the best essays for writing a section on the richness of the essay data or for presenting quotes to faculty; we use them primarily for rater training efforts and our ongoing rating criteria refinements.

* + or - : found beside individual ratings (as opposed to the final reconciled ratings), these signs are simply a rater's indication that s/he sees an argument for more than one rating: the one noted and the next 1/3 position step above (+) or below (-) it. These notes help facilitate the reconciliation process, but should be ignored when computing inter-rater agreement percentages.

APPENDIX 6

PRIMARY CUES CITED AMONG SAMPLES

Table A1 provides cues for Positions 1, 2, 3, and 4. The list includes all possible cues used by William S. Moore of the CSID.¹ The cues indicated within these areas denote ideas presented by at least one of my research students.

Table A1. CSID categorization of primary cues cited

Cues for Position 2	Cues for Position 3
<ul style="list-style-type: none"> ___ Focus on facts/content–what to learn <u>xx</u> Learning as information exchange ___ “Teacher (Authority) is all” (T-centered) <u>xx</u> Emphasis on 1-to-1 relationship with teacher ___ Peers noted primarily as “friends in class,” “fun” <u>xx</u> Rule structures ___ Focus on teacher providing structure/ clarity for learning ___ Simple comfort in classroom/ physical environment ___ Emphasis on clear cut/straightforward grading (“no tricks”) <u>xx</u> Use of absolutes and/or dichotomies in language ___ Simplistic; focus on “fun,,” little on learning ___ Other cues and/or quotes 	<ul style="list-style-type: none"> <u>xx</u> Concern with process/methods–How to learn <u>xx</u> Opening for multiplicity (multiple perspectives) <u>xx</u> Focus on practicality/relevance <u>xx</u> Learning as a function of teacher/ student relationships <u>xx</u> Student responsibility = working hard and/or learning skills <u>xx</u> Discussion endorsed (peers provide diversity of opinions) ___ “Safe” and/or relaxed atmosphere ___ Quantity/qualifiers; lots of details ___ Focus on challenge/ hard work = good grades ___ Emphasis on evaluation issues (especially fairness) ___ listing (simple, unelaborated); multiples w/ little connection ___ Other cues and/or quotes

¹This chart was provided by William S. Moore as part of the MID evaluation. It is used here verbatim.

Table A1. continued

Cues for Position 4	Cues for Position 5
<p><u>xx</u> Focus on ways of thinking–How to think</p> <p><u>xx</u> Concern with independent thinking, freedom of expression</p> <p>___ “anything goes” perspective (“Do Your Own Thing”)</p> <p><u>xx</u> “New Truth” rules (absolutes with multiplicity)</p> <p><u>xx</u> Student more active, taking more responsibility for learning</p> <p>___ Peers noted as sources of learner (but unelaborated)</p> <p><u>xx</u></p> <p>___ Increased self-processing, ownership of ideas</p> <p>___ Endorses loosely-structured format</p> <p>___ Rejects grading and/or memorizing (“regurgitation”)</p> <p>___ Comfort with multiplicity, connections across disciplines</p> <p>___ Other cues and/or quotes</p>	<p>___ Focus on qualitative evidence–How to judge in context</p> <p>___ Reflection on own thinking (meta-thought)</p> <p>___ Understanding of different frames of reference</p> <p>___ Greater tentativeness, openness in language</p> <p>___ Teacher as learning partners in learning process</p> <p>___ Peers seen as full partners in learning process</p> <p>___ Strong sense of self-as-agent in own learning</p> <p>___ Emphasis on synthesis of ideas and themes</p> <p>___ Endorses seminar, argument, discussion of ideas</p> <p>___ Acknowledges role of critique/evaluation in learning</p> <p>___ Appreciation for other perspectives (empathy)</p> <p>___ Other cues and/or quotes</p>
General Comments	
<p>“3-4” indicates a passage that reflects transition, with elements of both position 3 and position 4</p> <p>“3 (4)” indicates mostly a position 3 focus with a possible “glimpse of position 4</p> <p>“2/4 split” indicates a passage that could be interpreted as being on the 2 or 4 side of position 3, depending on the overall context</p>	

APPENDIX 7

SCORED POSITIONS AND RATER NOTES

Table A2. Scored positions and rater notes

<i>Name</i>	<i>Position</i>	<i>Position Description</i>	<i>Numerical</i>	<i>Position</i>	<i>Rater Notes</i>
Mike	223	Dominant 2 opening to 3	2.33	2	
Stella	233	Dominant 3 with trailing 2	2.67	2-3	
Bertha	233	Dominant 3 with trailing 2	2.67	2-3	
Mathias	233	Dominant 3 with trailing 2	2.67	2-3	2/4 split ¹
Reed	233	Dominant 3 with trailing 2	2.67	2-3	
Jerrie	233	Dominant 3 with trailing 2	2.67	2-3	
Jayden	233	Dominant 3 with trailing 2	2.67	2-3	2/4 split
Kerry	233	Dominant 3 with trailing 2	2.67	2-3	
Kyle	233	Dominant 3 with trailing 2	2.67	2-3	
Cline	333	Stable Position 3	3	3	early ²
Brydon	333	Stable Position 3	3	3	Early
Jake	333	Stable Position 3	3	3	
Ray	333 (4)	Stable 3 with hint of 4	3	3	glimpse 4 ³
Travis	333 (4)	Stable 3 with hint of 4	3	3	
George	333 (4)	Stable 3 with hint of 4	3	3	glimpse 4

¹The following is from the MID rating explanation in appendix 5. Conceptually, these indicates that one or both of the raters noted this essay is an example of a rating split problem--a problematic essay that can be interpreted, for example, in the case of a "2/4" split, as being on either the position 2 or position 4 side of position 3. These splits result from the fact that there are close parallels between positions 2 and 4 in the Perry scheme.

²The following is from the MID rating explanation in appendix 5. Early means that the essay is seen as borderline between a 233 rating and a full 333 rating. It is essentially the same notion as "Glimpse" in footnote 3, but on the "other side" of the position.

³The following is from the MID rating explanation in appendix 5. Glimpse is a rater's notation that accompanies ratings like 333(4). Such a rating indicates that while the essay is seen as reflecting stable position 3, there is a hint, or "glimpse," of the next position (in this example, position 4) that is noted but not given sufficient weight to warrant a +1/3 position increment.

Table A2. continued

Bart	334	Dominant 3 opening to 4	3.33	3-4	
Meagan	334	Dominant 3 opening to 4	3.33	3-4	
Susan	334	Dominant 3 opening to 4	3.33	3-4	2/4 split
Bea	334	Dominant 3 opening to 4	3.33	3-4	2/4 split
Renee	334	Dominant 3 opening to 4	3.33	3-4	
Darryl	334	Dominant 3 opening to 4	3.33	3-4	2/4 split
Leonard	334	Dominant 3 opening to 4	3.33	3-4	
Kurt	334	Dominant 3 opening to 4	3.33	3-4	2/4 split
Surena	334	Dominant 3 opening to 4	3.33	3-4	
Susan	344	Dominant 4 with trailing 3	3.67	3-4	
Alexis	344	Dominant 4 with trailing 3	3.67	3-4	
Bud	344	Dominant 4 with trailing 3	3.67	3-4	
Carlton	344	Dominant 4 with trailing 3	3.67	3-4	
Sierra	344	Dominant 4 with trailing 3	3.67	3-4	
Duke	445	Dominant 4 opening to 5	4.33	4-5	

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ABSTRACT

EPISTEMOLOGICAL DEVELOPMENT IN PRE-MINISTRY UNDERGRADUATES ATTENDING CONFSSIONAL CHRISTIAN LIBERAL ARTS COLLEGES OR UNIVERSITIES

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The Southern Baptist Theological Seminary, 2015
Chair: Dr. John David Trentham

The research explores the epistemological development of pre-ministry undergraduates in confessional Christian liberal arts colleges and universities. The Perry Scheme is the basis for the evaluation. This is a replication study of a 2012 Perry Scheme analysis of pre-ministry graduates in a cross-section of higher education institutions.

This research is a qualitative study with thirty traditional-aged students within six months of graduation. The students are from purposively selected confessional Christian liberal arts institutions. The interviews are conducted by telephone, transcribed, and scored by the Center for Study of Intellectual Development (CSID).

Of particular interest is the ethical decision making abilities of graduating pre-ministry students. The research is intended to clarify the students' position on the Perry Scheme that reflects the level, if any, of personal commitment to their belief system.

KEYWORDS: biblical worldview, Center for the Study of Intellectual Development (CSID), cognitive development, college student development, dualism, epistemological development, ethics, higher education, *imago Dei*, multiplicity, Perry Scheme, pre-ministry undergraduates, reflective judgment, relativism, vocational ministry, William Perry.

VITA

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EDUCATIONAL

Diploma, West Anchorage High School, Anchorage, Alaska, 1976
B.A., Biblical Studies, Criswell College, Dallas, Texas, 1985
M.Div., Mid America Baptist Theological Seminary, Memphis, Tennessee,
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M.Ed., Montana State University, Billings, Montana, 2005

MINISTERIAL

Student Summer Missionary, HMB (NAMB), Colorado, 1978, 1979
Children's Minister, Faith Baptist Church, Anchorage, Alaska, 1978-1979
Youth Minister, Weaver Baptist Church, Weaver, Texas, 1980-1982
Youth Minister, First Baptist Church, Whitewright, Texas, 1982-1984
Singles Minister, Colonial Hills Baptist Church, Southaven, Mississippi,
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Church Starter/Pastor, HMB (NAMB), Missoula, Montana, 1989-1995
Pastor, Blue Creek Baptist Church, Billings, Montana, 1998-2005
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ACADEMIC

Decentralized Theological Education, International Mission Board: Syria and
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Instructor, Yellowstone Christian College, Billings, Montana, 1999-2002
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