COMPARING EPISTEMOLOGICAL DEVELOPMENT AMONG

PRE-MINISTRY UNDERGRADUATES ATTENDING

CONFESSIONAL VERSUS NON-CONFESSIONAL

LIBERAL ARTS COLLEGES OR UNIVERSITIES

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A Thesis

Presented to

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by

Warren Dale Leatherman, Jr.

May 2017

APPROVAL SHEET

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Warren Dale Leatherman, Jr.

Read and Approved by:

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John David Trentham (Chair)

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Danny R. Bowen

_____

Jonathan Derek Stuckert

Date _____

In loving appreciation to my wife of thirty years, Joanna.

Your support, encouragement, and unselfishness in

allowing me to pursue this dream is a demonstration of your love toward me.

I would never have completed this without you.

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LIST OF ABBREVIATIONS

CSID   Center for the Study of Intellectual Development

MER   Measure of Epistemological Reflectivity

MID   Measure of Intellectual Development

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PREFACE

While contemplating my doctoral education, I humbly acknowledge those who have provided encouragement, support, training, and guidance to me through the program at the Southern Baptist Theological Seminary. First and foremost, I must thank my Lord and Savior Jesus Christ who gave of himself so that I can live. It is he whom I serve (2 Tim 2:4).

My wife, Joanna, has supported and encouraged me through our years of marriage, and during the multiple moves from Ohio to Michigan, New Jersey, Florida, Texas, and Arkansas, and has remained flexible during the weeks away when I traveled globally during work. Our children, Christopher and Alyssa, provided understanding and love during the time that required focusing on this and previous endeavors. My parents, Warren and Ruth Leatherman, modeled strong work ethic, faith in God, and the importance of giving back to one's community.

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<div align="right">Dale Leatherman</div>

Walnut Ridge, Arkansas

May 2017

CHAPTER 1

INTRODUCTION

Integration of faith within higher education has been researched and written about throughout the centuries. Christian students and parents have difficult choices when it comes to the decision of whether a student should attend a confessional Christian college or university, a non-confessional college or university, a Bible Institute, or a secular college or university. For students and families considering liberal arts colleges and universities, one of many considerations to weigh is which type of institution is optimal, confessional or non-confessional. Which institution will be best at guiding the student to their highest epistemological and cognitive potential, while also respecting and holding to a biblical worldview? Students called to Christian ministry may also inquire as to which institution type will be best at preparing Christian pre-ministry students for full-time vocational ministry.

Although most colleges and universities originated as Christian colleges dedicated to the glory of God, due to the secularization of higher education in the eighteenth and nineteenth centuries most colleges in America abandoned their biblical worldview, foundations, and convictions.[1] Thus, few remaining institutions have continued with their original Christian mission.[2]

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[1]David S. Dockery and Gregory A. Thornbury, *Shaping a Christian Worldview: The Foundations of Christian Higher Education* (Nashville: Broadman and Holman, 2002), 363.

[2]Stella Y. Ma, "The Christian College Experience and the Development of Spirituality among Students," *Christian Higher Education* 2, no. 4 (December 2003): 322.

This research examined these topics, while also measuring and analyzing the epistemological development of pre-ministry college students attending liberal arts institutions.

Introduction to the Research Problem

Within academia, there are students whom God has called to study for the purpose of graduating and working in full-time Christian ministry (Matt 28:18-20). Some of these students take a more traditional route and enroll in a Christian liberal arts college or university or enroll in a Christian Bible College for training to be a pastor, missionary, or serving in another full-time ministry capacity. Others take a more functional educational direction, such as nursing, medicine, or psychology and study in a secular college, or non-confessional liberal arts college for the purpose of using their skills in ministry. Unlike those two scenarios, other students enroll in college with no ministry career aspirations and are later called by God into vocational Christian ministry.

This study complemented and extended a larger body of research initiated and overseen by John David Trentham surrounding pre-ministry students who attended Bible colleges, Christian liberal arts colleges, and secular colleges, and how each matured epistemologically while in college.[3] Trentham's initial research, as well as subsequent studies including this one, explored this epistemological maturity utilizing the Perry Scheme of Intellectual and Ethical Development as well as an original formulation of epistemological priorities and competencies, developed by William G. Perry.[4]

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[3]John 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).

[4]William G. Perry, Jr., *Forms of Ethical and Intellectual Development of the College Years: A Scheme* (New York: Holt, Rinehart, and Winston, 1970). Trentham, "Epistemological Development."

Need for the Study

  Previous research strongly demonstrates how Christian students are shaped and impacted through higher education.[5] Students grow and change emotionally, spirituality, and epistemologically as they are molded by the higher education experience.[6] This research expanded Trentham's research by not only studying pre-ministry students attending confessional Christian colleges or universities but also studied pre-ministry students attending non-confessional liberal arts colleges or universities. This study is an area where little or no research has been conducted.

  Resulting data from this research benefits at least three distinct groups of individuals. The first to benefit are those individuals seeking a career in full-time vocational ministry, post-graduation. This research assists the pre-ministry individual during their evaluation of colleges and universities, as they contemplate the school best suited to provide the education needed for their future service in gospel ministry. In addition, the parents of these individuals can utilize this research to help guide and direct their young person.

  Second, this study benefits teachers, administrators, and guidance counselors within Christian K-12 schools as they purposely mentor Christian pre-ministry high school students preparing for college. It helps these Christian school leaders better understand how pre-ministry students mature while attending various confessional or non-confessional liberal arts colleges and universities. This improved understanding allows the educator to add value to the student's decision-making process during college and career counseling sessions.

  College and university administrators and faculty benefit from this research by improving their knowledge of the impact confessional colleges and universities have on pre-ministry students' maturation, compared to the impact of non-confessional colleges

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    [5]Ma, "The Christian College Experience," 324.

    [6]Elizabeth Powell et al., "Faith Development in Graduating Christian College Seniors," *Christian Higher Education* 11, no. 3 (2012): 177-78.

and universities. Adding knowledge in this area aids educators in making critical decisions toward mission, vision, and incorporation of Christian faith.

In addition, this research enriches the broader series of research studies. For example, this study explores the distinctive dynamics of confessional versus non-confessional institutions and the related impact on evangelical students' personal epistemology. The nature of personal growth was assessed between a non-confessional environment that is intentionally secular versus a confessional, historically Christian context.

Type of Institutions Studied

In the eighteenth century and first half of the nineteenth century, many colleges in North America were church-sponsored institutions, designed for theological training and education in the Christian faith.[7] Frederick Eby, Professor at The University of Texas (1915), wrote of Baylor becoming the largest institution in the world under Baptist control. He quotes an unnamed author in stating, "Baylor University is the glory of Texas Baptist history. It is glorious that all but a small percent of the students have left the halls converted to God and measurably trained in Christian life."[8]

Most North American colleges were established by specific denominations but turned away from their denominational roots during or after the Enlightenment era.[9] The Enlightenment, with its humanistic and rationalistic influences, significantly impacted education philosophy of denominational colleges and universities.[10] Other movements,

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[7]Frederick Eby, *Christianity and Education* (Dallas: Executive Board of the Baptist General Convention of Texas, 1915, 67-90.

[8]Ibid., 87.

[9]Ibid., 102-3.

[10]James E. Reed and Ronnie Prevost, *A History of Christian Education* (Nashville: Broadman and Holman, 1993), 241.

such as the focus on scientific methods and the theory of evolution, also played a role in moving colleges and universities away from their denominational and biblical moorings.[11]

Today, only a small subset of confessional Christian liberal arts colleges remain that hold to a specific faith or doctrine for its faculty and students. These institutions continue to possess a Christian worldview; a worldview David Dockery and David Gushee argue is the ultimate worldview for the educator.[12]

An example of such confessional Christian liberal arts colleges is Union University in Jackson, Tennessee, where a core value is "a call to be Christ-centered in all that we are and in all that we do."[13] Union's faculty and staff are called to integrate Christian faith in all their teaching and all they do, as they demonstrate how "all truth is God's truth."[14] Confessional schools like Union University are intentionally holding fast to their Christian and denominational foundation.

Colleges and Universities abandoning their strongly held Christian and denominational beliefs and identities are considered to be non-confessional.[15] Hunter Baker describes this secularization of Christian colleges as a result of what he calls the "two-tiered model" approach. This approach held that Christian colleges could continue building a healthy Christian spiritual life for its students, even though the institution's

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[11]Coe dedicates an entire chapter, titled "Scientific Method Necessary," to discussing the importance of integrating the scientific method into all religions, including Christianity. George A. Coe, *What Is Christian Education* (New York: Charles Scribner's Sons, 1929), 129-49. He points out, "Christianity needs to assimilate, in its own work, the scientific attitude and method." Ibid., 142.

[12]David S. Dockery and David P. Gushee, *The Future of Christian Higher Education* (Nashville Broadman and Holman, 1999), 21.

[13]Union University, "Core Values-Christ Centered," accessed April 16, 2016, https://www.uu.edu/about/christ-centered.cfm.

[14]Ibid.

[15]Robert Benne, *Quality with Soul: How Six Premier Colleges and Universities Keep Faith with Their Religious Traditions* (Grand Rapids: Eerdmans, 2001), 4-6.

academic focus was clearly secular.[16] Baker argues this approach has failed, leading to further secularization.

An example of a college with a historic past inclusive of closely held Christian values, in addition to being previously associated with the Southern Baptist Convention, is Mercer University in Georgia.[17] Today, Mercer publicly overlooks its Baptist roots, and claims to be an "independent university." In 2006, The Georgia Baptist Convention officially severed ties with Mercer over theological and other concerns.[18] Mercer's mission, "to teach, to learn, to create, to discover, to inspire, to empower and to serve," is notably absent of any Christian distinctive.[19] Institutions such as Mercer, no longer hold to Christ-centered core values. Faculty and staff are not required or encouraged to integrate Christian faith in the classroom and all they do. They have moved toward secularization.

This research explored the maturation and epistemological development between Christian pre-ministry undergraduate students who attend confessional Christian liberal arts colleges or universities compared to Christian pre-ministry undergraduate students who attend non-confessional liberal arts colleges or universities. Evaluation of the research included analysis utilizing the Perry Scheme, and Trentham's epistemological priorities and competencies.

The Perry Scheme

In the widely acclaimed human development study, highlighted and originally published in 1968, titled *Forms of Ethical and Intellectual Development in the College*

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[16]Hunter Baker, "The State of Christian Higher Education," *Renewing Minds* 1 (May 2012): 22.

[17]R. Albert Mohler, Jr., "A Tale of Two Colleges," November 8, 2011, accessed March 27, 2016, http://www.albertmohler.com/2011/11/08/a-tale-of-two-colleges/.

[18]Alan Finder, "Feeling Strains, Baptist Colleges Cut Church Ties," *New York Times*, July 22, 2006, accessed April 13, 2016, http://www.nytimes.com/2006/07/22/education/22baptist.html?pagewanted=all&_r=0.

[19]Mercer University, "Mission Statement," accessed March 27, 2016, http://about.mercer.edu/mission/.

Years: A Scheme, William G. Perry, Jr., examines various stages of the maturation of Harvard University college students in the 1950s and 1960s. Perry observes how students grow epistemologically while in college, through a developmental trajectory that has become known as the "Perry Scheme."[20] This developmental scheme consists of nine possible positions in the college student's maturation.[21] Students traverse through various positions based on their epistemological maturation, whether extending through later positions or terminating in earlier positions. Perry's nine positions will be discussed in greater detail in chapter 2.

For simplicity, the Nine Positions of the Perry Scheme are commonly combined into groups. Today, there exists some variation in how social scientists interpret and combine the positions into larger groups, but Perry originally combined them into the three areas: (1) the modifying of dualism, (2) the realizing of relativism, and (3) the evolving of commitment.[22] Perry uses his completed personal semi-structured student interviews to illustrate how students move from a basic dualism perspective of right and wrong, through multiplicity, and ultimately to developing commitment.[23] He also writes how students can suspend, nullify, or reverse the process of growth by what he calls retreat, temporizing, or escape.[24] Written from a secular perspective, this human development text continues to be used and studied by researchers and professional educators.[25]

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[20]Perry, *Forms of Ethical and Intellectual Development*, 54-58.

[21]Ibid., 59-176.

[22]Ibid., 58.

[23]William G. Perry, Jr., "Cognitive and Ethical Growth: The Making of Meaning," in *The Modern American College: Responding to the New Realities of Diverse Students and a Changing Society*, by Arthur W. Chickering and Associates (San Francisco: Jossey-Bass, 1981), 76-116.

[24]Perry, *Forms of Ethical and Intellectual Development*, 177-200.

[25]Patrick G. Love and Victoria L. Guthrie, "Perry's Intellectual Scheme," *New Directions for Student Services* 88 (Winter 99): 5. Jennifer Anderson-Meger, "Epistemological Development in Social Work Education," *Journal of Ethnographic and Qualitative Research* 9 (2014): 2.

Current Status of the Research Problem

For the last forty years, significant research has been conducted surrounding student growth and knowledge development. Furthermore, research has been conducted as to how students grow and develop as measured by the Perry Scheme and other developmental or epistemological concepts.

A recent search designed to locate research focusing on epistemological development resulted in eighty articles, from one source alone.[26] Research studying the epistemological development of evangelical Christian pre-ministry students is limited. Although, since 2012, a series of studies surrounding this topic were published by The Southern Baptist Theological Seminary. This research provides additional findings on evangelical pre-ministry students while supplementing the ongoing body of research, begun in 2012, by John David Trentham at The Southern Baptist Theological Seminary. Trentham's initial study, "Epistemological Development in Pre-Ministry Undergraduates: A Cross-Institutional Application of the Perry Scheme," focused on pre-ministry undergraduates and their epistemological development. Conducting a qualitative research study with pre-ministry evangelical Christian students, he studied the students' development as they progressed through Perry's positions of intellectual and ethical maturity.[27] The purpose of Trentham's research was "to explore the variance of epistemological development in pre-ministry undergraduates across different institutional contexts, using the Perry Scheme as a theoretical lens."[28] Trentham explored the variance of pre-ministry students attending secular schools, Christian liberal arts colleges, and Bible colleges.

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[26]EBSCO Host Academic Search Premier lists eighty research articles on Epistemological Development Research, accessed April 16, 2015, https://www.ebscohost.com/academic/academic-search-premier.

[27]Trentham, "Epistemological Development," 1.

[28]Ibid., 16.

Trentham's research discovered a number of valuable themes, and sub-themes, surrounding the epistemological development of pre-ministry students.[29] It also highlighted twenty research implications resulting from the analysis of the findings, which add value to parents, pastors, academics, educational institutions, and future pre-ministry students.[30] Trentham made suggestions of potential future research to enhance his findings. His second proposal of further research is the following:

> Using a similar design and method as exemplified in this research, a study may be undertaken to explore the comparative differentiations regarding personal formation and epistemological development among pre-ministry students attending confessional Christian liberal arts universities and those attending non-confessional Christian liberal arts universities.[31]

Subsequent to Trentham's research, additional research surrounding pre-ministry students and epistemological development was conducted. These studies have found, in general, that students finishing college had matured to the normal Perry Scheme scoring range level of three to four, out of a possible range of one to nine.[32] To ensure consistency, William Moore, director of the Center for the Study of Intellectual Development (CSID), was contracted to conduct the scoring for each of the subsequent studies.[33]

Gregory Long, in his 2015 Doctoral Research titled, "Evaluating the Epistemological Development of Pre-Ministry Undergraduates at Bible Colleges According to the Perry Scheme," wrote of his findings surrounding pre-ministry students

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[29]Trentham, "Epistemological Development," 189-204.

[30]Ibid., 205-6.

[31]Ibid., 220-21.

[32]Bruce Richard Cannon, "Epistemological Development in Pre-Ministry Undergraduates Attending Confessional Christian Liberal Arts Colleges or Universities" (Ed.D. thesis, Southern Baptist Theological School, 2015), 70-78; Gregory B. Long, "Evaluating the Epistemological Development of Pre-Ministry Undergraduates at Bible Colleges according to the Perry Scheme" (Ed.D. thesis, Southern Baptist Theological School, 2015), 83-87; Christopher Lynn Sanchez, "Epistemological Development in Pre-Ministry Undergraduates Attending Secular Universities" (Ed.D. thesis, Southern Baptist Theological School, 2015), 66-70.

[33]The Perry Network, accessed March 27, 2016, www.PerryNetwork.org.

attending Bible Colleges.[34] He discovered how Bible College undergraduates progressed

through the Perry Scheme in a similar manner as college students studied previously.[35]

Long writes that the main discovery of his research showed the growth of "critical

thinking skills" as students moved toward Perry's commitment in relativism.[36] He argues

that students who came to college with a strong biblical foundation and were connected

to like-minded believers, actually increased their commitment to biblical values while in

college.[37]

In a separate study conducted in 2015, Bruce Cannon researched

"Epistemological Development in Pre-Ministry Undergraduates Attending Confessional

Christian Liberal Arts Colleges or Universities."[38] Cannon discovered students studying

at confessional liberal arts colleges and universities completed college within the normal

Perry Scheme range.[39]

Students from the Cannon study appeared to have "settled the basic issue that

all truth is God's truth."[40] As these students were more insulated to the culture around

them, he felt their discussions appeared "shallower" from a faith perspective.[41] A

common theme among Cannon's students was the "lack of exposure to non-Christians."[42]

His research demonstrated how those pre-ministry students attending confessional

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[34]Long, "Evaluating the Epistemological Development," 75-122.

[35]Ibid., 129.

[36]Ibid., 130.

[37]Ibid.

[38]Cannon, "Epistemological Development," 1-3.

[39]Ibid., 72.

[40]Ibid., 99.

[41]Ibid.

[42]Ibid., 113.

Christian liberal arts colleges or universities were "overwhelmingly committed to vocational ministry after graduation."[43] Even though he feels his research is valuable, Cannon writes that further research of evangelical students is needed, especially surrounding gender, or non-Caucasian students.[44]

This research augments Cannon's research by also engaging pre-ministry students attending non-confessional colleges or universities and comparing their epistemic positing to that of their counterparts at confessional institutions. One potential benefit of this study is that it may identify a distinctive missional focus among those pre-ministry students attending non-confessional schools. If it is discovered that these students do have a stronger or more natural missional commitment, this may suggest a distinct developmental factor regarding epistemic maturity. This information would be important for the Christian academic community.

Christopher Sanchez, in his 2015 doctoral research titled "Epistemological Development in Pre-Ministry Undergraduates Attending Secular Universities," wrote of his findings surrounding pre-ministry students attending secular colleges and universities.[45] Sanchez wrote that each of the students studied made reference of maintaining active membership in a local church during their college experience.[46] Even though not required to attend church by the educational institution, most of the students spoke of the importance of their involvement in a local church.[47] Many of the students also served in some form of church ministry.[48] While making significant contributions to the larger piece of

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[43]Cannon, "Epistemological Development," 123.

[44]Ibid., 129.

[45]Sanchez, "Epistemological Development," 1-2.

[46]Ibid., 62.

[47]Ibid., 63.

[48]Ibid., 62.

institutional research, Sanchez did recommend additional research be conducted.[49] It is

conceivable that some dynamics of maturation between students attending non-

confessional liberal arts schools, as well as those attending secular universities, may

emerge. If so, this would introduce a significant finding for later analysis.

Most recently, Jonathan Stuckert, in his 2016 doctoral research regarding the

development of graduate seminary students, wrote,

> The reported scores on the Measure of Intellectual Development (MID) for this
> sample of graduate-level seminarians are consistent with the typical scores of college
> graduates in general according to the Center for the Study of Intellectual
> Development (CSID) and in particular with the samples of the four precedent studies
> on pre-ministry graduating college students.[50]

He observed an insignificant difference between the scores of the seminarians he studied

and the scores of normal college graduates. However, he did discover a "significant

difference" among seminarians attending denominational schools from those attending

inter/multidenominational schools."[51] Stuckert hypothesized on the possibility of

denominational schools attracting more epistemologically developed students, or possibly

the difference in scores being a result of the size of the school participants attended.[52]

These five previous studies, conducted by Trentham, Long, Cannon, Sanchez,

and Stuckert, provided much needed additional research on the epistemological

development of college students. It also provided a backdrop from which this current

research could compare findings and MID scores.

Research Purpose

The purpose of this study is to explore the variance of epistemological

development in Evangelical Christian pre-ministry students attending confessional

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[49]Sanchez, "Epistemological Development," 117.

[50]Jonathan Stuckert, "Assessing Epistemological Development among Evangelical Seminarians" (Ed.D thesis, The Southern Baptist Theological Seminary, 2016), 115.

[51]Ibid, 116.

[52]Ibid.

Christian liberal arts colleges or universities, versus those attending non-confessional liberal arts colleges and universities, using the Perry Scheme as the theoretical lens.

Research Questions

1. What is the relationship, if any, between the nature of pre-ministry undergraduates' epistemological positioning and attendance at either a confessional or a non-confessional institution?

2. What distinctive contextual dynamics may be observed at confessional versus non-confessional colleges and universities that may impact an evangelical student's epistemic maturity and missional commitment?

3. How may a typical non-confessional liberal arts collegiate environment compare with a typical secular university environment with regard to a pre-ministry student's personal development and vocational preparation?

CHAPTER 2

LITERATURE REVIEW

This research project investigated the epistemological development of undergraduate pre-ministry students attending confessional versus non-confessional liberal arts colleges and universities. It also examined how these students developed in the areas of ethical and intellectual maturity based on what is commonly called the "Perry Scheme," originally documented by William G. Perry in 1968.[1] This study also includes my independent content analysis of the data, with the objective of identifying general themes and trends.

This chapter reviews theories of epistemological and college student development, such as those espoused by Perry and other related psychologists. It likewise analyzes the Perry Scheme in relation to biblical scholarship. Additionally, this chapter examines liberal arts colleges and universities and the divide in identities between confessional versus non-confessional institutions.

Epistemological and College Student Development

Secular researcher and author Hans Furth asked the question that has been asked for many years, by many interested in understanding the formation of knowledge, "what is intelligence?"[2] Furth, a follower of Piaget, questioned the nature of knowledge

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[1]William G. Perry, Jr., *Forms of Intellectual and Ethical Development in the College Years: A Scheme* (New York: Holt, Rinehart, and Winston, 1970).

[2]Hans G. Furth, *Piaget and Knowledge* (Englewood Cliffs, NJ: Prentice-Hall, 1969), 3. Furth was a researcher and educator within the Department of Psychology at the Catholic University of America. He was a follower of Jean Piaget, having spent time studying at the Piaget Center during a sabbatical.

and how knowledge is derived.[3] Like many before him, Furth longed to know the answer to this question, admittedly writing, "Empirical science cannot provide an answer."[4]

Researchers and academics continue the search for knowledge. Examples include John Gibney of the Center for Regional and Urban Studies in Birmingham, England, who writes of "harnessing the transformative power of knowledge" and how knowledge is a driver of social and economic change.[5] In 2002, resulting from their published research, Alan Cliff and Rob Woodward argued that academics must regularly "reflect on their own epistemology of knowledge" in order to assess how their view of knowledge interacts with students views of knowledge.[6] The search for knowledge must, and certainly does, continue to this day.

Ancient Knowledge Development

Throughout the centuries, man has been enamored with improving intelligence, increasing knowledge, and demonstrating cognitive abilities. Scripture tells that thousands of years ago, ancient Hebrews valued knowledge and parents were instructed on the importance of adolescent development and learning: "You shall teach them diligently to your sons and shall talk of them when you sit in your house and when you walk by the way and when you lie down and when you rise up" (Deut 6:7).

Prior to the turn of the first century AD, and through the first two centuries, Athens, Greece, was the leader in education and pursuit of knowledge.[7] Greece valued

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[3]Furth, *Piaget and Knowledge*, 3-11.

[4]Ibid., 4.

[5]John Gibney, "Knowledge in a 'Shared and Interdependent World:' Implications for a Progressive Leadership of Cities and Regions," *European Planning Studies* 19, no. 4 (2011): 613-27.

[6]Alan F. Cliff and Rob Woodward, "How Do Academics Come to Know? The Structure and Contestation of Discipline-Specific Knowledge in a Design School," *Higher Education* 48, no. 3 (2004): 269-90.

[7]Frank P. Graves, *A Student's History of Education* (New York: Macmillan, 1915), 3. A liberal arts education was highly valued by Greek and Roman society. These societies developed informal and

knowledge and intellect among the populous. Rome followed Greece in the pursuit of knowledge. By the third century, Romans were the main attendees in Athenian schools of higher education.[8] Roman Alexandria would later become the world leader in higher education and knowledge.[9] Both Greece and Rome valued liberal education, which included a focus on the three key liberal arts of grammar, rhetoric, and dialectics, with the addition of geometry, astronomy, music, arithmetic, or other arts.[10]

Early Christians also valued learning and education. Christianity spread through individual and corporate training and education. Historic institutions of Christian education, such as the Catechetical School of Alexandria, taught second and third generation Christians in the city of Alexandria, Egypt.[11] Other Christians followed the apostle Paul's admonishing of his young mentee, Timothy, by entrusting what he heard from Paul to "those who can teach others" (2 Tim 2:2). In the third and fourth centuries, St. Augustine recognized the liberal arts as suitable studies for Christians.[12] Augustine himself was a teacher of rhetoric prior to his conversion to Christianity.[13] This early Christian education served as the forerunner of the confessional Christian liberal arts colleges of today, which is discussed in further detail later in this chapter.

History alludes to other societies and cultures with a pursuit for knowledge and increased learning. Examples of these include the Islamic Great House of Wisdom in

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formal modes of training and education for their children.

[8]Graves, *A Student's History of Education*, 29.

[9]Ibid., 30.

[10]Andrew F. West, "The Seven Liberal Arts," in *Alcuin and the Rise of the Christian Schools* by Charles Scribner's Sons, ed. Christopher A. Perrin (1912), 1-2, accessed June 15, 2016, http://classicalsubjects.com/resources/TheSevenLiberalArts.pdf.

[11]*Internet Encyclopedia of Philosophy*, "Origen of Alexandria (185-254 C.E.)," accessed February 15, 2016, http://www.iep.utm.edu/origen-of-alexandria/.

[12]West, "The Seven Liberal Arts."

[13]Ibid.

Baghdad, the Ancient Indian Pustakalayas, as well as centers of learning in ancient Babylon, Nineveh, and elsewhere.[14] Educators from antiquity were the predecessors of twentieth-century psychologists, philosophers, academics, and theorists who established well-researched models of epistemological development.[15]

Epistemological Models and Theorists

During the twentieth century, scientists and researchers studied and wrote about human development and behavior.[16] It was then in history that educators and psychologists such as Dewey, Piaget, and Perry made significant contributions to the study of epistemological development among adolescents and adults.

John Dewey. Professor John Dewey was considered by some "the dominant figure in America philosophy" in the 1930s.[17] He wrote much about his questioning of knowledge, including his prominent belief that "each of us is inevitably limited to his own particular perspective and that reality from a perspective is all that can be known."[18] He believed "critical thinking" to be the main objective of development in education.[19]

Dewey was greatly influential in education. He claimed that the aim of education was "the formation of careful, alert, and thorough habits of thinking."[20] By his

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[14]Jonathan Lyons, *The House of Wisdom: How the Arabs Transformed Western Civilization* (New York: Bloomsbury, 2009); S. D. Vyas, *Social Science Information in India: Effort towards Bibliographical Control* (New Delhi: Concept, 1992), 28.

[15]Frank Dumont and Andrew D. Carson, "Precursors of Vocational Psychology in Ancient Civilizations," *Journal of Counseling and Development* 73, no. 4 (March 1995): 371.

[16]Furth, *Piaget and Knowledge*, 4-5.

[17]William T. Feldman, *The Philosophy of John Dewey: A Critical Analysis* (Baltimore: J. H. Furst, 1934), v.

[18]Ibid., 13.

[19]Patricia M. King, Phillip K. Wood, and Robert A. Mines, "Critical Thinking among College and Graduate Students," *The Review of Higher Education* 13, no. 2 (1990): 167.

[20]Feldman, *The Philosophy of John Dewey*, 101.

friends and others, Dewey was known as the "Father of Progressive Education."[21] He was considered a naturalist, focusing primarily on scientific methods, with his religious philosophy coming from a liberal perspective.[22]

According to David Sidorsky, Professor at Columbia's Department of Philosophy, Dewey was the "most influential figure in American philosophical thought in the first half of the twentieth century."[23] Dewey's ideas on epistemology were discussed and debated within universities for decades.[24] He was a pragmatist and knowingly challenged many traditional educational and pedagogical priorities and practices of the day. As an alternative philosophy to simply thinking, Dewey encouraged the importance of "experience" for children and adolescent development.[25] He was convinced on the importance of "doing rather than thinking only."[26]

Dewey claimed education was the "social process of living."[27] To him, the development that occurred through experience ensured future growth.[28] This future human growth was a result of the student's constant development.[29] His educational models were integrated throughout America, and, no doubt, influenced the later generations of developmentalists, adolescent researchers, and academicians, likely including Piaget and Perry.

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[21]Feldman, *The Philosophy of John Dewey*, 5.

[22]David Sidorsky, *John Dewey: The Essential Writings* (New York: Harper and Row, 1977), 255-56.

[23]Ibid., vii.

[24]Ibid.

[25]Martin S. Dworkin, *Dewey on Education* (New York: Teachers College Press, 1959), 6-9, 14.

[26]Ibid., 15.

[27]Ibid., 22.

[28]Ibid., 104.

[29]Ibid., 132.

Jean Piaget. John H. Flavell, Professor at Stanford's Department of Psychology, wrote that Piaget is "one of the most remarkable figures in contemporary social science."[30] Flavell describes how Piaget researched what he called the "Epistemological Problem," otherwise called "the problem of knowledge."[31] This pursuit eventually led him to the field of developmental psychology and his work on "genetic epistemology."[32]

Piaget's 1970 book, *Genetic Epistemology*, highlights Piaget's challenge with the ordinary study of epistemology, or study of knowledge at one point in time.[33] Per Piaget, scientific knowledge is in a continual stage of change from one day to the next.[34] Genetic epistemology, he argues, "takes into account transformations in the development of thought."[35]

Piaget argued that intelligence is an "adaptive process" and one adapts to his environment through "assimilation."[36]

> Intelligence is an adaptation. To grasp its relation to life, in general, it is, therefore, necessary to state precisely the relations that exist between the organism and the environment. Life is a continuous creation of increasingly complex forms and a progressive balancing of these forms with the environment.[37]

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[30]John H. Flavell, *The Developmental Psychology of Jean Piaget* (Princeton, NJ: D. Van Nostrand, 1963), 1. Flavell was Associate Professor of Psychology at the University of Rochester when he wrote his famed book on Piaget. He is currently listed as the Anne T. and Robert M. Bass Professor in the School of Humanities and Science (Emeritus) at Stanford University. His research surrounded cognitive growth and childhood development. Stanford University, "John Flavell," accessed February 25, 2016, https://psychology.stanford.edu/jflavell.

[31]Flavell, *The Developmental Psychology*, 2.

[32]Ibid., 2-3.

[33]Jean Piaget, *Genetic Epistemology* (New York: Columbia University Press, 1970).

[34]Ibid., 2-3.

[35]Ibid., 1.

[36]Ibid., 118.

[37]Jean Piaget, *The Origins of Intelligence in Children* (New York: International University Press, 1952), 3.

Flavell writes that Piaget's "scholarly major is the nature and development of intelligence."[38] Piaget has written several well-received journal articles, making a significant impact in his research.[39] It is thus no surprise that later researchers followed his work and learned from his schema. One of these researchers was an educational psychologist and Harvard Professor William G. Perry, Jr., who formed his own developmental scheme, which has been written about by hundreds.[40]

Perry could rightly be labeled a Neo-Piagetian, as he argued how epistemological development among college students occurs in stages.[41] Trentham and Estep described Perry as the "foremost neo-Piagetian theoretician in the sphere of educational psychology."[42]

William G. Perry, Jr. Similar to the classic model by Jean Piaget, William G. Perry, a famed educational psychologist, researcher, and academic, developed a schema that has been studied, researched, and written about for over forty years.[43] Patrick Love and Victoria Guthrie wrote that discussions of cognitive theories must begin with Perry's work.[44] They argue that Perry's scheme sets the stage for future theories on college

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[38]Flavell, *The Developmental Psychology*, 225.

[39]Ibid.

[40]Over 300 were listed with Ebsco Host Academic Elite, accessed October 26, 2016, http://eagle.wbcoll.edu:2065/ehost/results?sid=f8f90722-0b6c-43b1-8bed-b78f0733ff23%40sessionmgr 4007&vid=3&hid=4101&bquery=Perry+Scheme&bdata=JmRiPWFwaCZjbGkwPUZUJmNsdjA9WSZ0e XBlPTAmc2l0ZT1laG9zdC1saXZlJnNjb3BlPXNpdGU%3d.

[41]Mellissa Hurst, "Robbie Case's Theory of Development: Neo-Piagetian," Lesson Transcript, chap. 3, lesson 3, accessed December 5, 2016, http://study.com/academy/lesson/robbie-cases-theory-of-development-neo-piagetian-perspective.html.

[42]John David Trentham and James Riley Estep, Jr., "Early Adult Formation and Discipleship at the Intersection of Neurological and Phenomenological Research," *The Journal of Discipleship and Family Ministry* 5, no. 2 (2016): 9-10.

[43]Perry, *Forms of Intellectual and Ethical Development.*

[44]Patrick G. Love and Victoria L. Guthrie, *Understanding and Applying Cognitive Development Theory*, New Directions for Student Services 88 (San Francisco: Jossey Bass, 1999), 5.

student cognitive development.[45] Rose Marra and Betsy Palmer wrote of the Perry Scheme and its "powerful means" for examining student encounters and processing of the student's world.[46]

Mark Henze calls William G. Perry, Jr., a "pioneer" when it comes to student epistemological worldviews in relation to education.[47] Henze admits many evangelical educators have concerns with Perry's commitment in relativism, but he believes Perry is relevant, and argues that Perry's work provides an underlying foundation for the field of personal epistemology.[48] A more recent (2016) article by Trentham and Estep argue how Perry's 1970 developmental publication *Forms of Intellectual and Ethical Development in the College Years: A Scheme* "represents the standard upon which all others are based."[49]

Perry's Main Line of Development—Perry Scheme

In the mid-twentieth century, Perry was a Harvard professor when he and a team of researchers studied students during their college years.[50] Beginning in 1953, Perry conducted longitudinal research studies that examined the development of these students and how they progressed while living in a diverse and pluralistic culture.[51]

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[45]Love and Guthrie, *Understanding and Applying Cognitive Development Theory*, 5.

[46]Rose Marra and Betsy Palmer, "Encouraging Intellectual Growth: Senior Profiles," *Journal of Adult Development* 11, no. 2 (2004): 111-22.

[47]Mark E. Henze, "Re-Examining and Refining Perry: Epistemological Development from a Christian Perspective," *Christian Education Journal* 3, no. 2 (2006): 260-77.

[48]Ibid., 266-67.

[49]Trentham and Estep, "Early Adult Formation and Discipleship," 10.

[50]Perry, *Forms of Intellectual and Ethical Development*, ix-x.

[51]W. 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. B. N. Hofer and P. Pintrich (Mahwah, NJ: Lawrence Erlbaum Associates, 2001), 17-36.

Perry's work on adolescents and epistemology, *Forms of Intellectual and Ethical Development in the College Years: A Scheme*, was first published in 1968 and later updated in 1998.[52] In this text, he writes of nine positions that make up his "Main Line of Development."[53] Perry's Main Line of Development (see figure 1) is now commonly called the "Perry Scheme."[54] It has been researched and written about by thousands of students and researchers around the globe.[55]
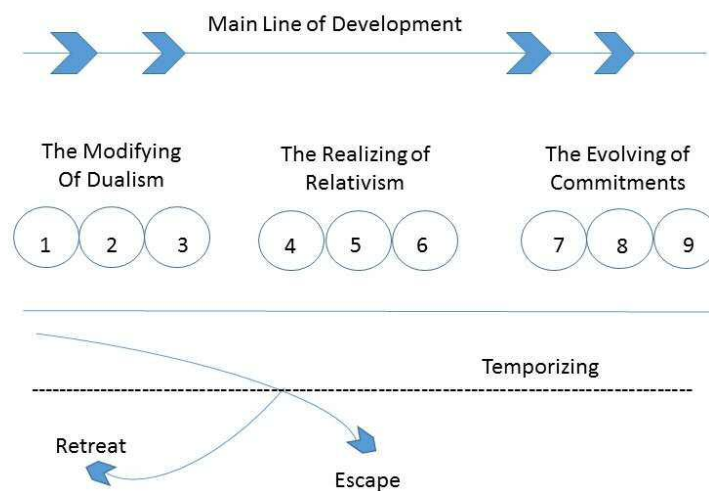
Figure 1. Schematic of Perry's "Main Line of Development"

[52]William G. Perry, Jr., "Forms of Intellectual and Ethical Development in the College Years," in *Classic Edition: Sources, Human Development*, by Rhett Diessner, 3rd ed. (Dubuque: McGraw Hill, 2007), 176-81.

[53]Perry, *Forms of Intellectual and Ethical Development*, 9-10.

[54]Figure 1 is a schematic representation adapted from Perry, *Forms of Intellectual and Ethical Development*, 58.

[55]Kris Bulcroft, "Bill Moore Talks about the Place of the Perry Scheme in the Post-Modern Era," *PRAXIS* 1 (Fall 2002): 3. A July 29, 2015, "Google" search revealed 38,700,000 results for the Perry Scheme. A July 29, 2015, "EBSCOhost" search revealed 1,220 research articles on the Perry Scheme.

Synopsis of the Perry Scheme

Perry's Scheme suggests a set of sequential steps or patterns that students take in their epistemological development while in the college years.[56] This development involves changes in the student's morals, values, and ethical assumptions based on their ongoing life and college experiences.[57] Perry argued that developmental growth requires courage and is akin to an "Adventure of the Spirit," or what others have called an "Epistemological Pilgrims Progress."[58] He argues how students' progress through the "Nine Positions" at different speeds, and at times may even stop growing and begin to retreat.[59] Students begin at position 1, in a state of "dualism," where they perceive life to be black and white. While progressing, they move toward positions of "conceptual relativism" where everything in life is no longer black and white, and no longer certain, but in a shade of gray.[60]

The Perry Scheme has been widely taught and debated since the publication of the study and has a plethora of enthusiasts and disparagers. One disparager, Sharon Pugh, writes that the Perry Scheme is of interest as a cultural description, but argues that Perry's Harvard interviews were completed at a time when the student body was predominantly white, male, and privileged.[61] She claims subsequent research, at less elite universities, have been unable to replicate Perry's higher positions.[62] Clarkeburn et al.,

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[56]Perry, *Forms of Intellectual and Ethical Development*, 44-46.

[57]Ibid., 44-45.

[58]Ibid., 44

[59]Ibid., 45.

[60]William S. Moore, "The Learning Environment Preferences: Exploring the Construct Validity of an Objective Measure of the Perry Scheme of Intellectual Development," *Journal of Student Development* 30 (November 1989): 504-14.

[61]Sharon Pugh, "Models of College Student's Epistemological Development," Indiana University, 2005, accessed August 21, 2016, http://www.josemnazevedo.uac.pt/pessoal/textos/perry_scheme.pdf.

[62]Ibid., 1.

wrote that the Perry Scheme is useful, specifically of value for the analysis of moral development, a concept they termed as "meta-ethical development."[63] Another researcher, Li fang Zhang, argues that Perry's Scheme is useful for teaching and learning in the classroom, although acknowledged a number of limitations.[64]

With the substantial number of studies following the Perry Scheme, it should be no surprise that various perspectives and theories abound. Even so, the Perry Scheme has been validated by studies which do, in fact, demonstrate how college students develop epistemologically and ethically in a series of steps. William S. Moore writes of this as a "difficult journey toward more complex forms of thought about the world, one's discipline/ area of study, and one's self."[65] It is through this journey that students learn they must take their own position on issues of knowledge, ethics, and morality. This will expectantly lead the student toward further development and commitments surrounding life.

As detailed on his Main Line of Development, Perry's nine scheme positions are often merged into three different groupings for simplicity. The groupings are listed as[66] (1) The Modifying of Dualism (positions 1, 2, 3); (2) The Realizing of Relativism (positions 4, 5, 6); and (3) The Evolving of Commitments (positions 7, 8, 9).

The Nine Positions of the Perry Scheme

      Position 1: Basic duality. In the first position, students arrive at college with

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[63]Henrikka M. Clarkeburn et al., "Measuring Ethical Development in Life Sciences Students: A Study using Perry's Developmental Model," *Studies in Higher Education* 28, no. 4 (October 2003): 443-56.

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

[65]William S. Moore, *Overview of the Perry Scheme*, excerpted and adapted from Moore, "Understanding Learning," 1.

[66]Perry, *Forms of Intellectual and Ethical Development*, 58. Other authors, such as Moore, *The Perry Network,* suggest the nine positions are better formed into four groups, versus three. Attention must also be given to Perry's discussion of Dualism, Multiplicity, Contextual Relativism, and Commitment in Relativism. Moore, "Understanding Learning in a Postmodern World."

a belief in authority, right versus wrong, and ultimate truth.[67] They hold to what Perry calls a perspective of "authority-right-we-us," versus a perspective of "illegitimate-wrong-others."[68] In position 1, students see absolute truth resulting in right answers from authority figures, such as teachers whose job is to teach them the right answers.[69] Opinions of students are considered to be all right or all wrong, based on what is approved by authority.[70]

Position 2: Multiplicity pre-legitimate. In position 2, students begin to progress in their level of development.[71] The student begins to address the complexity and diversity in the world, but may consider this to simply be unwarranted confusion.[72] It is at this point where the student may begin to take an oppositional stance toward what he is experiencing in class and in life.[73]

Position 3: Multiplicity subordinate. Within position 3 the student begins to find that uncertainty is unavoidable.[74] Complexity is now a reality, and students begin to recognize that even professors do not have all the answers to life's ponderings and questions.[75] Even though the student realizes there to be a diversity of opinions, and

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[67]Perry, *Forms of Intellectual and Ethical Development*, 59.

[68]Ibid.

[69]William G. Perry, Jr., "Cognitive and Ethical Growth: The Making of Meaning," in *The Modern American College*, by Arthur W. Chickering and Associates (San Francisco: Jossey-Bass, 1981), 76-116.

[70]Perry, *Forms of Intellectual and Ethical Development*, 64.

[71]Ibid., 72.

[72]Perry, "Cognitive and Ethical Growth," 76-116.

[73]Perry, *Forms of Intellectual and Ethical Development*, 74.

[74]Ibid., 89.

[75]Ibid., 90-91.

observes that truth is unable to be found now, he believes this uncertainty to be a temporary situation and that truth will eventually be found.[76]

Position 4: Multiplicity coordinate with the know and relativism Subordinate. In Perry's 1970 work, he entitled position 4 as Multiplicity Correlate or Relativism Subordinate,[77] but in his 1981 writings, he changed position 4 and broke it into section a and section b.[78]

In position 4a, Perry (1981) calls this position Multiplicity (Diversity and Uncertainty) Coordinate with the Know.[79] During this position, students carve out two epistemological worlds; one world containing the authority-right-wrong perspective of authority, while the other world allows for personal diversity of perspectives.[80] The students now feeling everyone has a right to their own opinion and if authorities are unsure of the answer, all opinions are as relevant as any other.[81]

In position 4b, Relativism Subordinate, Perry describes how students begin to understand relativism's structural beginnings.[82] Students move from their old way of thinking, based on authority, to independent thinking where they identify different approaches to problems.[83] Students who continue to progress to stage 4b, move toward a perception that all knowledge is generally relativistic.[84] In 1970, Perry wrote the

[76]Perry, "Cognitive and Ethical Growth," 82-83.

[77]Perry, *Forms of Intellectual and Ethical Development*, 95.

[78]Perry, "Cognitive and Ethical Growth," 84-86.

[79]Ibid., 84.

[80]Ibid.

[81]Ibid.

[82]Ibid., 87.

[83]Ibid.

[84]Ibid.

following about position 4. "The raising of multiplicity from a subordinate status to that of simple reaction, and the energy of revolt can now be invested in an imperialistic extension of the domain of total freedom at the expense of Authority's claims."[85]

It is during the movement from position 4 to 5 where students feel the total freedom to differ with their professors and other authorities as they develop their own independent thought or opinions.[86]

Position 5: Relativism correlate, competing, or diffuse. In position 5, students move toward a framework that is entirely more relativistic.[87] It is at this point where students see all knowledge and understanding as relative.[88] Relativism is the new normal, whereas dualism, although still intact, is no longer normal, but reserved for special situations.[89] Perry argues that relativistic thinking gradually becomes habitual, considering things to be relative where students once perceived them to be in the realm of right versus wrong.[90] They find themselves in a world of relativity, without even knowing they have made the change of perspective, or how it even happened.[91]

Position 6: Commitment foreseen. In position 6, the student who has progressed to this position may now be in a state of disorientation.[92] This disorientation is caused by the student finding himself in a world where all knowledge and values are

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[85]Perry, *Forms of Intellectual and Ethical Development*, 97.

[86]Ibid., 100-101.

[87]Ibid., 110-11.

[88]Ibid., 111.

[89]Ibid.

[90]Ibid., 112-13.

[91]Ibid., 115.

[92]Ibid., 134-35.

relativistic.[93] At this point, within a relativistic world, the student is faced with the position of making commitments in life. These commitments may involve a spouse, family, career, job, or aspects of faith.[94] During this stage, the student sees his interests as narrowing as he pairs down potential alternatives in life.[95]

Positions 7 to 9: Evolving commitments. Positions 7 through 9 require students to make decisions on the commitments they will make in life.[96] These commitments involve a level of risk and force students to select priorities of varying commitments.[97] Perry writes of opposing polarities within the choices students are forced to make. Examples include student's own values versus other's values, stability versus flexibility, and certainty versus doubt.[98]

It is during positions 8 and 9 where students must learn to focus on their commitments and acknowledge the commitments of others, even if those commitments are contrary to their own personal beliefs.[99] Students who have progressed to these final stages have discovered and explored the relativistic world of liberal education where they learned what the author dubbed modern knowledge.[100] Perry argues that this movement through the Main Line of Development is the student demonstrating an act of moral courage.[101]

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[93]Perry, *Forms of Intellectual and Ethical Development*, 134.

[94]Ibid., 135.

[95]Perry, "Cognitive and Ethical Growth," 92-93.

[96]Ibid., 94-95.

[97]Ibid.

[98]Ibid., 96.

[99]Perry, *Forms of Intellectual and Ethical Development*, 162-63.

[100]Ibid., 176.

[101]Ibid.

Deflections from Growth

      Perry readily admits that not all students are able to traverse the nine positions of the Main Line of Development.[102] He writes that some students suspend, nullify, or reverse their growth along the development line.[103] These "Alternatives to Growth" are what Perry calls temporizing, retreat, or escape.[104] Perry notes that students deflecting growth may not do so permanently. They may resume growing, leading to subsequent commitments.[105]

      Temporizing. As students' progress, epistemologically, there may be a time when they pause in growth.[106] The student may take additional time to grow in one of the nine positions or feel they are not ready to progress further at that time.[107] This temporizing can occur at any point in the nine positions.[108] Some students have multiple interests and cannot make decisions necessary to make a further commitment, so they do nothing except wait.[109]

      Retreat. The second way students deflect growth is through what Perry terms Retreat.[110] During Retreat, the student returns to a previous position, normally that of position 2. The student feels so strongly that another party is wrong that they retreat into

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[102]Perry, "Cognitive and Ethical Growth," 90. In 1970, Perry entitled this "Alternatives to Growth," but in 1981, amended this to a new title called "Deflections from Growth."

[103]Perry, *Forms of Intellectual and Ethical Development*, 177.

[104]Ibid., 177-200.

[105]Ibid., 198-200.

[106]Ibid., 177.

[107]Perry, "Cognitive and Ethical Growth," 90-91.

[108]Perry, *Forms of Intellectual and Ethical Development*, 179.

[109]Ibid., 183.

[110]Perry, "Cognitive and Ethical Growth," 91.

what Perry calls a Moral Righteousness against others.[111] Another example of Retreat is a student falling back into Multiplicity because of their experience with a relativistic world.[112]

Escape. Per Perry, deflecting growth through Escape is the third alternative to growth.[113] A student resulting to Escape may finding themselves non-committal and "drifting in life."[114] This drifting could be a result of the student coming to believe everything in life is relative and absolute truth does not exist. Ultimately, this drifting could lead to disassociation and a sad or depressed refusal to take responsibility in life.[115]

The Bible, Epistemology, and the Perry Scheme

Perry developed a scheme describing his belief in the steps toward student epistemological development. Scripture also describes the development of knowledge and wisdom. Scripture informs the reader, "The fear of the Lord is the beginning of wisdom" (Prov 1:7). Proverbs 9:10 is a parallel verse and reiterates the same as chapter 1:7, but adds, "And knowledge of the Holy One is understanding." Throughout the Bible, readers are told how to gain knowledge and wisdom—by fear and trusting of the Lord, and asking the Lord for Wisdom.[116]

Faculty can gain knowledge and benefit from understanding the Perry Scheme, while identifying where their students currently fall within its "Nine Positions." Robert

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[111]Perry, "Cognitive and Ethical Growth," 91.

[112]Perry, *Forms of Intellectual and Ethical Development*, 183.

[113]Ibid., 190.

[114]Perry, "Cognitive and Ethical Growth," 91.

[115]Ibid.

[116]In the gaining of knowledge and wisdom, Scripture points to God in these and other verses: Prov 1:7, Prov 9:10, 1 Cor 1:21, Eccl 2:26, Exod 35:31, Job 12:13, Rom 11:33, 1 Kgs 4:29, 2 Chr 9:23, Ezra 7:25.

Kloss explained how his initial understanding of the Perry Scheme stunned him due to the power it had to explain "bewildering student behavior,"[117] which led him to soften his judgement of his students.[118] Kloss also quoted instances where other faculty benefited through understanding the Perry Scheme, as it improved attitudes toward the students.[119]

Even though the Perry Scheme is followed throughout the globe, some evangelical Christian educators and scholars struggle with its focus on contextual relativism. This may be because they have not invested the time to fully understand its true meaning. Perry does stress how positive developmental growth will lead college students through contextual relativism, but he also argues how continued development leads to the student's own internal commitments.[120] These commitments are not spoon-fed to the student by their parents, teachers, or pastors, but solid commitments made by the student as they begin to own their own faith and beliefs. Perry even found through his own research how several maturing students express a feeling of returning to religion, "in a more meaningful form."[121]

In "Reexamining and Refining Perry: Epistemological Development from a Christian Perspective," previous Talbot professor, Mark Henze, admits that Christians can learn much from Perry, especially in the areas of Epistemology and Education.[122] He makes the argument that biblical truth and scientific truth should "integrate" and many

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[117]Robert J. Kloss, "A Nudge Is Best: Helping Students through the Perry Scheme of Intellectual Development," *College Teaching* 42, no. 4 (1994): 152.

[118]Ibid.

[119]Ibid.

[120]Perry, *Forms of Intellectual and Ethical Development*, 134-76.

[121]Ibid., 143.

[122]Henze, "Re-Examining and Refining Perry," 270-71. Mark Henze has a Ph.D. in Educational Studies and a Masters in Philosophy and Ethics. He previously served as a Professor at Biola University, and as an adjunct at other institutions. He currently is the owner of Henze and Associates, PC., based in Colorado.

from a Christian worldview "understand the concept of learning and growth. . . . The developmental nature of Perrys scheme is not intrinsically objectionable."[123]

Verses such "increasing in the knowledge of God" (Col 1:10), "let us press on to maturity" (Heb 6:1), and "grow in the grace and knowledge of our Lord and Savior Jesus Christ" (2 Pet 3:18) support Henze's position for a worldview of Christian growth and learning. Scripture is also clear that there are ultimate truths and not every answer is as valid as another.[124] One missing slice of Henze's argument may be that of purpose. The next section examines the biblical purpose of development.

Trentham's Principle of Inverse Consistency

In his Ph.D. dissertation, Trentham wrote of the importance of scripture when analyzing the Perry Scheme: "A commitment to the authority and sufficiency of Scripture must be the guiding premise on which all secular developmental models, including the Perry Scheme, are assessed."[125] Trentham argues that secular social scientists see and observe patterns and development occurring in the natural world, as God created a world of order.[126]

The problem, according to Trentham, is how secular scientists' ability to "rightly interpret the patterns and behaviors is radically limited."[127] He further elaborates that wisdom is the "clear objective," per scripture, for believers' "epistemological

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[123]Henze, "Re-Examining and Refining Perry," 270.

[124]First Deut 4:34, 39; 2 Deut 6:4; 1 Kgs 8:60; 1 Chr 17:20; Neh 9:6; Ps 86:10; Isa 37:16-20; Isa 46:9; Hos 13:4; Joel 2:27; John 17:3.

[125]John 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), 15.

[126]Ibid.

[127]Ibid., 12.

maturation."[128] This opinion differs from Perry who argues that "Commitment in Relativism" is the higher level of development.

Even though the perspective surrounding the end-goal for epistemological maturation varies between Trentham and Perry, evangelical Christian researchers can still successfully engage the Perry Scheme in identifying and measuring epistemological development. In fact, it can be argued that when Christian students develop in godly wisdom, it will lead them to firm convictions and subsequent commitments for life. In a very real sense, this opinion integrates the two divergent perspectives surrounding student maturation. Perry likely did not consider student development a result of godly wisdom, but for those who believe God controls all order, it would make sense that this is the natural progression for the evangelical Christian student. The Perry Scheme can be an appropriate tool for measuring Christian student epistemological maturation and growth.

**Overview of the Inverse
Consistency Principle**

Developmental "purpose" must be identified and differentiated between natural epistemological development and the wisdom and knowledge which scripture teaches comes from the "fear of the Lord" (Prov 1:7, 9:10). For the Christ follower, scripture confirms maturation and development's purpose as becoming more like Christ (2 Pet 3:18; Rom 8:29; Col 3:10) migrating to Christlikeness (2 Cor 3:18). In *Principle of Inverse Consistency*, Trentham explains these inverse consistencies between natural development and development based on the supremacy of Scripture.[129]

> Secular and biblical development models include consistent patterns of maturation, but are oriented toward two opposite goals, respectively: self and Christ. Thus, inverse consistencies exist between the biblical notion of positive maturation (unto Christlikeness) and secular-developmental notions—which the Perry Scheme entails existentialist self-identification and commitment.

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[128]Trentham, "Epistemological Development," 14.

[129]Ibid., 126.

Trentham stresses the importance of "critical interaction" with Perry's Scheme versus using it as "wholly integrative,"[130] allowing the Christian to remain faithful to Scripture while still learning from the developmental levels espoused by Perry.[131] Trentham applied the above-described P*rinciple of Inverse Consistency* to the Perry Scheme, as one examines specific rudiments of epistemological priorities and values.[132]

In *Reflective Judgement: Seminarians' Epistemology in a World of Relativism*, professor Janet L. Dale writes, "Evangelical epistemology considers God's revelation as the foundational source of truth."[133] She continues to elaborate how this revelation includes Scripture as well as general revelation in God's creation.

Dale and Trentham highlight the importance of Scripture in relationship to epistemological development. They both infer how scriptural supremacy is critical for the college student who may be faced with a multiplicity of ideas, and faced with those more than eager to lead the student toward a particular ideology. As Christian college students develop epistemologically and ethically, holding fast to Scripture as the baseline of revelation and truth may help them dodge the landmines prevalent during the college years.

In "For the Bible Tells Me So: Using Developmental Theory to Teach the Bible," David B. Howell, a conservative Christian, describes how he now uses developmental theories like the Perry Scheme to better understand his students in his Bible class.[134] Howell feels that using developmental schemes as tools benefits the

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[130]Trentham, "Epistemological Development," 127.

[131]Ibid.

[132]Ibid., 128-29.

[133]Janet L. Dale, "Reflective Judgement: Seminarians' Epistemology in a World of Relativism," *Journal of Psychology and Theology* 33, no. 1 (2005): 56-64.

[134]David B. Howell, "For the Bible Tells Me So: Using Developmental Theory to Teach the Bible," *Perspectives in Religious Studies* 27 no. 4 (2000): 399-411.

professor as he attempts to help students advance in the knowledge of the subject matter, which for him is teaching the Bible.[135] He calls this model of teaching "teaching developmentally," and uses this to challenge students to progress in the areas of knowledge and move on to the next stage of learning.[136]

Howell's model of education appears polar-opposite to Trentham's where Howell uses Perry's model to teach the Bible, Trentham uses the Bible to assess the Perry Scheme. Although the strategies are different, at closer look, both models can be used successfully for the Christian educator. Christian faculty should strive to better understand the developmental level of their students, and utilizing the Perry Scheme can be a tool to do just that. Simultaneously, faculty must use Scripture as their foundational plumb line to ensure what is being taught aligns with the Word of God.

In his doctoral thesis, "Evaluating the Epistemological Development of Pre-Ministry Undergraduates at Bible Colleges According to the Perry Scheme," Gregory Long writes of two areas of intersection between the Perry Scheme and Christianity.[137] The first area of intersection is that of growth. Long states that Christians identify lifelong growth as "sanctification."[138] He also argues that Jesus Christ is the "perfect model of epistemological growth" as Christ increased in wisdom even though he was fully God.[139]

Per Long, the second intersection point is personal commitment. He writes that the Bible and the Perry Scheme "call people to make a commitment to their

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[135]Howell, "For the Bible Tells Me So," 400.

[136]Ibid., 404.

[137]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, 2015), 23-24.

[138]Ibid., 23.

[139]Ibid.

beliefs."[140] The beliefs of Christian students are developed based on their individual maturation and growth, and understanding of Scripture, leading to personal commitments focused on deep convictions. Perry calls commitment to belief as the student's "affirmation of self," where the student makes choices defining them as individuals.[141] Examples of these commitments include career, religion, and relationships.

Even though there are convergence points between Christianity and the Perry Scheme, Long argues that there are also divergence points.[142] His main area of divergence is absolute truth.[143] Christianity takes the position that there is absolute truth created by God, which is passed down to mankind through His Word, where Perry describes this belief in absolute truth as "epistemological innocence."[144] Even though, as Long discovered, Perry's personal belief appears biased against absolute truth, Perry's theory remains valid for the Christian student who matures toward life commitments in belief based on conviction. As students mature epistemologically and ethically, as described by the Perry Scheme, they move through various stages that lead maturing students to a decision point where they make personal commitments. For the Christian student, these personal commitments can align perfectly with a belief in absolute truth.

Where some Christian academics and researchers question components of the Perry Scheme, others fully support Perry's development model. In his doctoral thesis, "An Investigations of the Relationship of Protestant Religious Fundamentalism to Intellectual and Moral Development among College Students," Tom Copeland writes that there is a "significant inverse relationship between Fundamentalist Protestantism and

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[140]Long, "Evaluating the Epistemological Development," 24.

[141]Perry, *Forms of Intellectual and Ethical Development*, 30-31.

[142]Ibid., 24.

[143]Ibid., 26.

[144]Ibid., 60.

intellectual and moral development."[145] He argues that many Christian students do not develop along the Perry Developmental Scheme as well as non-Christian students.[146] Copeland, in stark contrast with Dale, Trentham, and Long, discusses a conflict between faith and science when he writes, "The integration of faith and reason among Protestants is often hindered by an epistemological view that the sole source of truth is revelation, rather than reason or scientific investigation."[147]

Copeland writes that Fundamentalist, Conservative, and Evangelical Students, of which those from the Southern Baptist Church are a large part, do not score high on the Perry Developmental Scheme.[148] He claims this is a result of the student's strong focus on dualism, which Perry describes as when a proposition is either "right or wrong" compared to "better or worse."[149] Copeland argues that the Perry Scheme is widely accepted and churches should be concerned about the potential negative effects of fundamentalism in regard to intellectual development.[150]

What seems evident is how Copeland appears to have sided with those from the enlightenment era, arguing for science and reason to be supreme. In contrast, many of the evangelicals who Copeland disparages would likely argue "all truth is God's truth," while supporting the supremacy of Scripture. Copeland also sides with liberal

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[145]Tom V. Copeland, "An Investigation of the Relationship of Protestant Religious Fundamentalism to Intellectual and Moral Development among College Students" (Ed.D. diss., Texas Tech University, 1995), vi.

[146]Ibid., v.

[147]Ibid., 2.

[148]Ibid., 37-39.

[149]Perry, *Forms of Intellectual and Ethical Development*, 64.

[150]Ibid., vi.

theology and appears to be unaware, or simply may not accept, Scripture's admonition to develop epistemologically by gaining knowledge and pursuing wisdom.[151]

James Mannoia, past President of Greenfield College in Illinois, argues that Christian liberal arts institutions must move beyond dogmatism and skepticism. He highlights Perry's scheme and the need to train Christian college students to move past what Perry termed *multiplicity* toward *critical commitment*.[152] Stressing the importance of a student's epistemological maturation progressing in the direction of making critical commitments, Perry, Mannoia, and Long appear to be well aligned.

Constructing lifelong critical commitments is certainly in line with a Christian worldview. Scripture clearly speaks of commitment to the Lord, commitment to spouses and family, teaching Scripture, making disciples, helping the poor, and other areas of commitment.[153] Making the move toward critical commitment can be difficult for some students, with some never making it to this level. A conviction to commit requires belief in oneself, or what is commonly called an "internal locus of control."[154] Wood, Saylor, and Cohen argue that having an internal locus of control is more conducive to high achievement, social adjustment, and independent functioning.[155] For the Christian student, belief commonly involves a commitment to something or someone larger than oneself. It

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[151]Prov 2:6, 9:10,15:14, 18:15-24, Eph 1:17.

[152]James V. Mannoia, *Christian Liberal Arts: An Education That Goes Beyond* (New York: Rowman and Littlefield, 2000), 40-63. Mannoia served at Greenfield College from 1999 to 2008, when he became President Emeritus. He then served as the Senior Fellow for International Development at the CCCU.

[153]Ps 37:5, 2 Cor 5:19, Job 5:8, Ps 84:12, and many other verses speak of a Christian commitment.

[154]April Moywood, Colleen Saylor, and Jayne Cohen, "Locus of Control and Academic Success among Ethnically Diverse Baccalaureate Nursing Students," *Nursing Education Perspectives*, September 1, 2009, 291, accessed September 14, 2016, http://www.thefreelibrary.com/Locus+of+control+ and+academic+success+among+ethnically+diverse...-a0209535650.

[155]Ibid.

should be noted that Christian student development, as demonstrated by maturation through stages of the Perry Scheme, is like the sanctification process of redeemed believers who grow, develop, and become more like Christ Jesus (2 Thess 2:13).

As Christian students traverse the ledge from multiplicity to critical commitment, they may face similarities to what Blackaby terms a "crisis of belief." The crisis of belief may occur when the student, faced with making critical life commitments, is forced to ascertain their confidence in God to lead and guide them and to meet their needs to follow through with those critical commitments.[156] Perry also wrote about the difference between belief and faith, and argued that faith can only come about after the "realization of doubt."[157]

Mannoia claims *critical commitment* combines elements of tension, attitude, virtue, and is habitual.[158] He poses the question of whether critical commitment is Christian, and argues that Christian liberal arts colleges "are in an unusually good position to teach this virtue and ought to make it a chief distinctive."[159] Even so, Mannoia confesses that critical commitment threatens religion, and is sometimes attacked by both the religious right and the religious left.[160]

Mannoia makes a valid point when he suggests inherent conflict between religion and critical commitment.[161] This conflict is comparable to the struggle between adherence to a sect, or a religion versus a student's true relationship with Jesus. As with the Pharisees of old, some of religious today's leaders point toward a strict set of man-

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[156]Henry T. Blackaby, Richard Blackaby, and Claude V. King, *Experiencing God: Knowing and Doing the Will of God* (Nashville: B & H, 2008), 208-9.

[157]Perry, *Forms of Intellectual and Ethical Development*, 30.

[158]Mannoia, *Christian Liberal Arts*, 68-63.

[159]Ibid., 64.

[160]Ibid., 66-76.

[161]Ibid.

made rules or guidelines that students must rigidly follow. Even though God does provide moral guidelines for the good of all mankind through Scripture, true followers of Jesus Christ have a personal relationship with the God of the universe and grow in that relationship toward Christlikeness. Likewise, the Christian student demonstrates growth as they interact with the various stages of the Perry Scheme.

Mannoia argues how Christian liberal art colleges are in a good position to teach critical commitment, which they uniquely are, but he does not distinguish that critical commitment may vary from those students attending a confessional versus non-confessional liberal arts college or university.[162] This research identifies how evangelical Christian students grow and develop as measured by the Perry Scheme while attending a confessional or non-confessional liberal arts college.

Liberal Arts Education

Today, there is a debate about the value of attending liberal arts colleges and universities versus attending state universities or community colleges that provide a focus on a specific skill set. With added attention on college debt, some proclaim how not every person needs to attend college. Others are strong proponents of a job-focused curriculum, which is more aligned to a state or community college.

Saddled with huge student loan debt, some students may question their decision to attend a liberal arts college. With the nightly news' unending attention to the Science, Technology, Engineering and Math (STEM) careers, a liberal arts student may be concerned a general liberal arts education is not worth the investment. Although, students graduating with a liberal arts education continue to be valued by employers and other organizations. A 2014 *US NEWS and World Report* article described how liberal arts job placement has seen an increase, giving hope to liberal arts graduates.[163] The

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[162]Mannoia, *Christian Liberal Arts*, 66-76.

[163]Mark I. McNutt, "There Is Value in Liberal Arts Education, Employers Say," *US NEWS and World Report*, September 22, 2014, accessed June 15, 2016, http://www.usnews.com/news/college-of-

article decrees that it may not be as obvious, but hiring managers continue to seek liberal art graduates.[164] Quoting various employers, the article shares how proficient oral communication, creativity, teamwork, and critical thinking are still much desired by today's employers.[165]

Baker and Boumgarden write of the tensions of business and the liberal arts. Even though tension exists, they argue that the liberal arts have the "potential to pull together professional and liberal arts perspectives in a way that recognizes how problems are often larger than disciplines."[166] Their argument rings true as the Christian liberal arts student, who experiences a broad-expansive education, is what businesses need to manage problems of the future. Business, government, and education require future leaders who are critical thinkers, and who think outside of the box.

Resiliency of the Liberal Arts

William Perry wrote of the "good teaching" of the liberal arts during his time in academe.[167] Recent research on liberal arts demonstrates the continued resilience and value of the liberal arts curriculum. Forty-eight years past Perry's work, researchers in North America continue to praise the liberal arts and the value they bring to society.

In her recently published article, "Liberal Arts in the Modern University," Fitzsimmons writes that the liberal arts are indispensable, helping people think outside their narrow specializations.[168] She argues pointedly on the value of a liberal arts

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tomorrow/articles/2014/09/22/there-is-value-in-liberal-arts-education-employers-say.

[164]McNutt, "There Is Value in Liberal Arts Education," 1.

[165]Ibid., 2.

[166]Vicki L. Baker and Peter Boumgarden, "A Liberal Arts Perspective on Engaged Executive Education," *Academe* 101, no. 5 (2015): 30-34.

[167]Perry, *Forms of Intellectual and Ethical Development*, 35.

[168]Lorna Fitzsimmons, "Liberal Arts in the Modern University," *Academe* 102, no. 1 (2016): 31-33.

education: "A liberal arts education serves as a candle or torch that enables people to perceive what it means to be human from different perspectives while warming the heart toward others and guiding the mind throughout the course of life."[169]

Even while those like Fitzsimmons, Baker, and Boumgarden carefully articulate the value of the liberal arts, others either misunderstand or dismiss the liberal arts altogether. In "The Lone Liberal Artists in the Ed School: Reconnecting Foundations Scholars with the Liberal Arts," Mackler writes of the strained relationship between liberal arts and the education department.[170] While acknowledging how other college departments are reconsidering the liberal arts, she argues that the liberal arts are misunderstood, and discusses the lack of respect for liberal arts the past fifty years.[171]

Roche, in concurrence with Mackler, suggests that the liberal arts have fallen in prestige.[172] He describes that 70 percent of college students in the early twentieth century majored in the liberal arts, but today only 40 percent do so.[173] Roche argues that many traditional liberal arts colleges are transitioning to a hybrid liberal arts college.[174] These hybrid colleges hold to a general education foundation but provide majors outside the arts and sciences.

Even though Roche and Mackler acknowledge a perceptional change specific to the liberal arts, they both argue for its value. Roche highlights three distinct reasons for the value of the liberal arts: (1) its intrinsic value—learning for its own sake, (2)

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[169]Fitzsimmons, "Liberal Arts," 32.

[170]Stephanie Mackler, "The Lone Liberal Artists in the Ed School: Reconnecting Foundations Scholars with the Liberal Arts," *Educational Studies* 50 (2014): 103-22.

[171]Ibid., 105.

[172]Mark W. Roche, "The Landscape of the Liberal Arts," *New Directions for Community Colleges* 163 (Fall 2013): 3-10.

[173]Ibid., 4.

[174]Ibid.

cultivation of intellectual virtues requisite for success beyond the academy—career success, and (3) character formation—development of a sense of vocation - connection to a higher purpose or calling.[175]

If one is to fully understand the value of a Christian liberal arts education in North America, he must first comprehend its origins and differentiators. In the following sections, the origins of Christian liberal arts in North America is discussed, followed by cultural changes in higher education that have occurred since the mid-nineteenth century.

Origin of Christian Liberal
Arts in North America

As early as the first century, the apostles and other disciples of Jesus Christ were committed to teaching and training other followers of Jesus. The Bible speaks of the apostle Paul regularly traveling with those he was mentoring in the ministry, such as Timothy and Titus.[176] Paul's form of higher education included real world training, as well as experiencing the challenges, difficulties, and blessings of ministry.

In the second century, institutions called Catechetical schools were formed to train new Christian converts in the tenants of Christianity.[177] As Alexandria, Egypt became the leading center in global education, the Alexandria Catechetical School became known as one of the greatest Christian schools in ancient history.[178] Early church fathers such as Clement, Origen, and Demetrius served to train and lead those Christians interested in further education.[179] As persecution of Christians spread and church

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[175]Roche, "The Landscape of the Liberal Arts," 5-6.

[176]The books of 1 Timothy, 2 Timothy, and Titus demonstrate Paul's mentoring via his letters to his disciples.

[177]Graves, *A Student's History of Education*, 46.

[178]Michael Anthony and Warren Benson, *Exploring the History and Philosophy of Christian Education; Principles for the 21st Century* (Eugene, OR: Kregel, 2003), 110.

[179]Lisa Holliday, "From Alexandria to Caesarea: Reassessing Origen's Appointment to the

hierarchies were established, Christian leaders moved to further reaching areas and expanded Christian education[180]

Through the centuries, Christian education expanded westward as it incorporated the liberal arts and the study of Scripture. In 1636, Puritan Christians founded the first college in America. Harvard College was established and its first higher learning goal was "To know God and Jesus Christ which is eternal life (John 17:3), and therefore to lay Christ in the bottom as the only foundation of all sound knowledge and learning."[181]

As the purpose of the early American colleges was predominate to train ministers to preach the gospel of Jesus Christ, it is no surprise that the majority of colleges that opened in the eighteenth and early nineteenth century were denominationally based.[182] This influx of new American Christian colleges was precipitated by the "First Great Awakening," which occurred during the mid-eighteenth century.[183] These colleges were what some would call "confessional" today, with a mission and objectives replete with clear statements of faith in God. Colleges such as Harvard, Yale, Brown, William and Mary, Columbia, and Princeton were founded, funded, and constructed by followers of Jesus Christ, to the Glory of God. These Christians had no idea what the future held for their beloved Christian institutions.

Presbyterate," *Numen* 58 (2011): 674-96.

[180]Holliday, "From Alexandria to Caesarea," 675-79.

[181]William C. Ringenberg, *The Christian College: A History of Protestant Higher Education in America* (Grand Rapids: Baker, 2006), 38.

[182]Perry L. Glanzer, P. Jesse Rine, and Phil Davignon, "Assessing the Denominational Identity of American Evangelical Colleges and Universities, Part I: Denominational Patronage and Institutional Policy," *Christian Higher Education* 12, no. 3 (2013): 181-202.

[183]Ibid., 39-43.

**Science, Enlightenment, and
the Christian College**

Around the time of Charles Darwin's 1857 publication of the *Origin of Species*, a new cultural change was already afoot.[184] The enlightenment movement had begun in the mid-eighteenth century, gradually moving American society toward secularization.[185] This transformation from a faith in God to faith in scientific criticism and reason was to have a dramatic secularizing effect on America colleges. By the nineteenth century, many Christian colleges were starting to move away from their Christian and denominational roots toward the secularization of higher education.[186]

In an article titled "Secularization and Scholarship among American Professors," Michael Fai wrote that, in 1969, a large percentage of professors subscribed to a religion.[187] By 1976, Fai sadly points out that most professors now considered themselves "among the irreligious."[188] In addition, due to secularization, few America colleges retained the ecclesiastical ties they did a century before.[189] This secularization of the American higher education system would transform previously confessional Christian liberal arts colleges and universities into non-confessional. Disappointingly, this change occurred with the apt approval of college administrators, professors, and the board of trustees.

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[184]Charles Darwin, *On the Origin of Species: Or the Preservation of Favoured Races in the Struggle for Life* (London: Down, Bromley, Kent, 1859).

[185]Jacob Soll, "The Culture of Criticism: What Do We Owe the Enlightenment?" *The New Republic*, June 1, 2015, 74.

[186]Ringenberg, *The Christian College*, 113-45.

[187]Michael A. Faia, "Secularization and Scholarship among American Professors," *Sociological Analysis* 7, no. 1 (1976): 65-73.

[188]Ibid., 63.

[189]Ibid.

In his text on The Southern Baptist Theological Seminary, Gregory Wills writes in great detail about the secularization of the seminary. Wills shares the story of a famed mid-nineteenth century Southern Baptist Theological Seminary professor who transitioned from a solid biblical scholar to a person some claim had become heretical.[190] Professor Toy made a pilgrimage from belief in Scripture as the Word of God, to the adoption of Darwinism, acceptance of evolutionary thought, the adherence of biblical criticism, and finally doubting Scripture to be factual and historical.[191] Toy was later forced to resign and left with many followers and students who had turned away from orthodoxy.[192] Wills writes that Toy "left the South, left the Baptists, and finally left the church."[193] Even though this story illustrates the unfortunate secularization at a theological school, similar stories could be repeated throughout the secularization of liberal arts colleges and universities.

Wills also writes of a Th.M student, Wesley Holleyfield, who, as part of a 1976 thesis study, analyzed the persistence of traditional orthodoxy of The Southern Baptist Theological Seminary students. Hollyfield's findings were troubling to many Southern Baptists, and rightly so. He found (1) "Barely half of M.Div. students believed in the historical accuracy of biblical miracles, including the virgin birth, and Jesus walking on water," (2) "Barely one third of Ph.D. students believed in them," (3) "Twenty to thirty percent of M.Div. students were uncertain of the deity of Christ and the existence of God," and (4) "Nearly forty percent of Ph.D. students had the same doubts."[194]

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[190]Gregory A. Wills, *Southern Baptist Theological Seminary, 1859-2009* (New York: Oxford University Press, 2010), 110-45.

[191]Ibid.

[192]Ibid., 148-49.

[193]Ibid., 149.

[194]Ibid., 434.

As denominational colleges turned increasingly secularized, the Christian church began to look for other ways to reach college students with the gospel of Jesus Christ.[195] Starting in the late eighteenth century, parachurch organizations such as the YMCA, YWCA, and the Student Volunteer Movement made significant impacts within college student populations.[196]

Schmalzbauer writes that in the twentieth century, organizations such as the Navigators, InterVarsity Christian Fellowship, Fellowship of Christian Athletes, and Campus Crusade for Christ developed college chapters throughout the United States and the world.[197] This was in addition to established Bible studies and Bible clubs sponsored by various denominations.[198] An estimated 87,000 college students are involved in Southern Baptist College ministries alone.[199]

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[195]Ringenberg, *The Christian College*, 145-82.

[196]Ibid., 145-47.

[197]John Schmaulzbauer, "Campus Religious Life in America: Revitalization and Renewal," *Society Journal* 50, no. 2 (2013): 116-17. Parachurch organizations train thousands of college students in evangelism, discipleship, and Christian leadership annually. (1) CRU, commonly known as Campus Crusade for Christ, was founded in 1951, and trains college students in their popular "transferable concepts" and other discipleship programs. As of 2016, they claim to be in over 2,000 Unites States campuses, and over 5,000 locations worldwide. Cru, "What We Do," accessed September 19, 2016, https://www.cru.org/about/what-we-do. According to *Christianity Today*, Campus Crusade for Christ claims to have "25,000 staff members in 191 countries." Sarah Pulliam Bailey, "Campus Crusade Changes Name to Cru," *Christianity Today*, July 19, 2011, accessed September 19, 2016, http://www.christianitytoday.com/ct/2011/julyweb-only/campus-crusade-name-change.html. (2) Navigators, founded in 1933, claims to have nearly 5,000 full-time staff members, in 70 nationalities. They are committed to the training and discipleship of college students, and others. Navigators, "About Us," accessed September 19, 2016, http://www.navigators.org/About-Us. (3) The Christian ministry known as InterVarsity Christian Fellowship started at a British University in the late 1800s, began work in its first US campus in 1938, and now claims to have over 1,000 full-time staff serving students and faculty worldwide. InterVarsity, "InterVarsity's History," accessed September 19, 2016, https://intervarsity.org/about/our/history.

[198]Schmaulzbauer, "Campus Religious Life in America," 117.

[199]Ibid.

Estimates showed that by 2012, over 120,000 US college campus students participated in para-church Christian organizations.[200] An additional 130,000 college students were participating in various Christian protestant student organizations.[201] In his article on declining Christian practice on campus, French argues that participation in these types of affinity or peer groups are the one main factor for Christian students retaining a faith component while in college.[202]

Even though most American denominational and confessional colleges have followed the treacherous cliffs of secularization, the next section highlights those Christian liberal arts college and universities who have retained a formal commitment to faith in Christ. These colleges are what this study terms *confessional*—institutions that firmly stand for Christ and orthodox biblical teachings.

**Confessional Christian Liberal
Arts Colleges and Universities**

In *Quality with Soul*, Robert Benne writes how he agrees with researcher and author James T. Burtchaell in that most colleges "have gone the way of the flesh."[203] Benne argues that most Christian colleges find themselves in a "gray area between the brightness of a fully Christian college and the darkness of full secularization."[204] He

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[200]Schmaulzbauer, "Campus Religious Life in America," 116.

[201]Ibid. Various denominations lead Bible studies and other ministry functions on college campuses. These denominations include the Assemblies of God, Southern Baptist, Evangelical Presbyterian, Reformed, and Lutheran. The largest of these is Southern Baptist, with active student participation of 87,000, according to Schmalzbauer.

[202]David French, "Decadence, Scorn, and the Decline of Christian Practice on Campus," *Academic Questions* 23, no. 2 (2010): 245.

[203]Robert Benne, *Quality with Soul: How Six Premier Colleges and Universities Keep Faith with Their Religious Traditions* (Grand Rapids William B. Eerdmans, 2001), 5.

[204]Ibid.

writes of four types of church schools to assist the reader in understanding the process of secularization, ranging from "orthodox" to "pluralistic."[205]

In *The Idea of a Christian College*, Arthur Holmes argues,

> Christian commitment does not restrict intellectual opportunity and endeavor, but rather it fires and inspires him to purposeful learning. Christian education should not blindfold the student's eyes to what the world must offer, but it should open them to truth wherever it may be found, truth that is ultimately unified in and derived from God.[206]

Since truth is derived from God, there should never be a conflict between what God teaches in Scripture, and what students discover through education.[207] This view would be supported by most confessional Christian liberal arts colleges and universities.

While most colleges and universities today are officially non-sectarian, organized religion on campuses continues to thrive. In addition, a subset of colleges and universities have remained decidedly Christian. Samuel Joeckel writes how, per a 2007 survey, there are ninety-five Christian Colleges within the Council of Christian Colleges and Universities that are not descending into secularization.[208] These Christian Colleges remaining firm in their faith in Christ are made up of liberal arts colleges and universities, Bible colleges, and other Christian universities.

One such example of a liberal arts college firm in their faith in Christ is William's Baptist College of northeast Arkansas. Kenneth Startup, the previous Dean of Academic Affairs, quotes a speech given by the founder and then president H. E. Williams: "The College will remain unapologetic in its Christian orientation."[209] Startup

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[205]Benne, *Quality with Soul*, 49.

[206]Arthur F. Holmes, *The Idea of a Christian College* (Grand Rapids: William B. Eerdmans, 1975), 26-27.

[207]Ibid., 26.

[208]Samuel Joeckel and Thomas Chesnes, "A Slippery Slope to Secularization? An Empirical Analysis of the Council for Christian Colleges and Universities," *Christian Scholar's Review* 39, no. 2 (2010): 177-96.

[209]Kenneth M. Startup, *The Splendid Work: The Origins and Development of Williams Baptist College* (College City, AR: Williams Baptist College, 1991), 130.

also writes of a letter Williams wrote to the *Arkansas Baptist Newsmagazine*, stating, "With state schools increasingly secularized, Christian colleges represented the vital repository of Christian social and political ethics."

Responding to a 2016 *Arkansas Baptist News* interview, while celebrating Williams Baptist College' seventy-fifth anniversary, president Thomas Jones responded to the question, "How does a Christian college like Williams maintain its spiritual commitment?"

> A Christian college doesn't become a Christian college by accident. It is intentional. And it doesn't remain a truly Christian college by accident, either. Maintaining our Christian identity is intentional, and it is ongoing. There are always worldly forces at work that would push us away from our Christian moorings. Williams Baptist College holds steadfastly to the biblical principles and the Christian commitment upon which it was founded.[210]

Williams Baptist College highlights on the front page of its website that it is a "Christ-centered institution."[211] It also adheres to the Baptist Faith and Message.

In his expansive work on denominational college history, James Burtchaell argues that many denominational colleges migrated from pietism to a form of liberalism labeled as indifferentism, then further degraded into rationalism, which he describes "as toxins . . . of the culture."[212] Even if true, there remains a steadfast group of colleges and universities that hold to biblical convictions and are committed to the gospel of Jesus Christ. These institutions are commonly called confessional, adhering to an affirmation of Christian beliefs, tenants, or doctrines.

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[210]Brett Cooper, "Williams Baptist College: The Dream at 75," *Arkansas Baptist News*, November 17, 2016, 5.

[211]Williams Baptist College, accessed November 17, 2016, http://wbcoll.edu. Williams Baptist College lists its mission statement as the following: "Williams' mission is to provide an excellent, holistically Christian, liberal arts education, while compassionately shaping students' lives." Williams Baptist College lists its vision statement as the following: "Williams' vision is to produce exceptional graduates prepared to engage local and global cultures through a Christ-centered worldview."

[212]James T. Burtchaell, *The Dying of the Light: The Disengagement of Colleges and Universities from their Christian Churches* (Grand Rapids: Eerdmans, 1998), 845-46.

**Challenges for Today's Liberal
Arts Colleges and Universities**

In a *Chronicle of Higher Education* Interview, Carol Geary Schneider, then president of the Association of American Colleges and Universities, shares her perspective on the importance of a liberal arts education while reiterating her plan to continue sharing how a liberal education should be the default curriculum and not something having to defend.[213] While many continue espousing the benefits of a liberal arts education, today's Christian liberal arts institutions face a myriad of challenges. These challenges range from a misunderstanding of a liberal arts education to the ongoing fiscal responsibilities of keeping an institution meaningful and financially sound.

"The one less traveled" is how Davis describes the path toward a liberal arts education.[214] He shares that the liberal arts education lack the popularity of the more than four thousand state and professional schools.[215] Specific to Christian higher education, Davis regrets that few colleges and universities now integrate their secular studies with Christian spiritual truth. God is the source of all wisdom and knowledge and a Christian education is a vehicle for grace for which students learn of their calling from God. This calling from God is to be lived out abundantly, with purpose, grounded in the love of Christ.[216]

Jeffrey Docking, President of Adrian College in Michigan, writes of his concern for the plight of small American Liberal Arts Colleges. Birthed in the United Methodist Tradition, Adrian College weathered significant storms before Docking

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[213]Dan Berrett, "On Eve of Retirement, Carol Geary Schneider Says a Liberal Education Has Never Been More Important," *The Chronicle of Higher Education*, May 27, 2016, A18.

[214]Jeffry C. Davis and Philip G. Ryken, *Liberal Arts for the Christian Life* (Wheaton, IL: Crossway, 2012), 32.

[215]Ibid.

[216]Ibid., 40.

created strategic plans successfully saving the institution.[217] He writes that small colleges provide a religious and values-based education difficult to replicate in other institutions.[218] If small liberal arts colleges continue to close, claims Davis, it will be the loss of one of America's greatest educational assets.[219]

David Johnston of Wheaton College also expresses serious concern for the liberal arts education. He writes of four conditions that will significantly challenge Christian liberal arts colleges in the future: demographic, economic, regulatory, and structural.[220] Johnston claims these four conditions will threaten the viability of Christian liberal arts colleges unless they take steps to overcome them.[221]

Schneider, Davis, Docking, and Johnston all express some level of concern for the plight of the liberal arts college. However, with this concern comes a sincere appreciation for the value of the liberal arts education. The value of a liberal arts education could not be clearer and the need more urgent. America needs leaders who have gained from the broad experience of a liberal arts education.

Even proponents of Career and Technical Education are seeing the value of the liberal arts. Bill Path, president of Oklahoma State University Institute of Technology, argues how the best parts of a technical education and liberal arts education should be merged.[222] He explains that liberal arts graduates have a difficult time locating jobs

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[217]Jeffrey R. Docking, *Crisis in Higher Education: A Plan to Save Small Liberal Arts Colleges in America* (East Lansing: Michigan State University Press, 2015), 1-18. Adrian College, "Mission Statement," accessed August 8, 2016, http://adrian.edu/about-us/mission-statement/.

[218]Docking, *Crisis in Higher Education*, 3.

[219]Ibid., 1.

[220]David E. Johnston, *Christian Colleges: Recognizing and Confronting the Challenges Ahead* (Wheaton, IL: self-published, 2016), 9-11.

[221]Ibid., 51.

[222]Bill Path, "Proposing a Liberal Arts and Technical Education Armistice: Merging the Best Attributes of Two Education Models Helps Grads Find Employment," *University Business Magazine,* December 2016, 88.

compared to those in technology.[223] However, he also recognizes how those in technology fields have a difficult time, later on, obtaining a higher level degree because they have predominantly career or technical classes on their transcripts.[224]

A liberal arts education engages the student in a broad experience of learning in sciences, arts, communications, and math. In today's fast moving world of economic, political, and religious change, what better way to prepare the leaders of tomorrow than with a position of educational Perennialism. Students should be taught the centuries-old model of the liberal arts. Future leaders must draw upon a broad liberal education to lead and succeed; success not nearly as possible by simply studying a specific profession focused primarily on one type of occupation. America needs an increasing number of students taking up the mantle of a broad liberal arts education.

In a January 2017, article in *Inside Higher Education*, Scott Jaschik writes how recipients of a liberal arts education may have benefited in numerous ways.[225] He writes of recent research conducted by Richard Detweiler, who interviewed one thousand college graduates.[226] Detweiler's research appears to show that graduates from liberal arts colleges experience higher financial success, in the long term, compared to other college graduates, in addition to life success while experiencing a "life well lived."[227] He encourages liberal arts colleges to find better ways to communicate the value of a liberal arts education.[228]

In the life of today's Christian liberal arts colleges and universities, the college president, administrators, board of trustees, and faculty must turn to God for wisdom on

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[223]Path, "Proposing a Liberal Arts and Technical Education." 88.

[224]Ibid.

[225]Scott Jaschik, "Research Documents Life Impact of Attending a Liberal Arts College," *Inside Higher Education*, January 9, 2017, accessed January 10, 2017, https://www.insidehighered.com/news/2017/01/09/research-documents-life-impact-attending-liberal-arts-college#.WHU7PvFMpKw.mailto.

[226]Ibid.

[227]Ibid.

[228]Ibid.

how to best keep their institution attractive, growing, and financially viable. It is imperative that these educational treasures are preserved for generations to come. Educating tomorrow's future leaders is critical business. To do so rightly, the liberal arts educator must turn to the Lord who gives wisdom, knowledge, and understanding (Prov 2:6).

Definitions

The following definitions are used for fundamental terms and notions within this thesis.

Bible college. A post- secondary higher educational institution that "provides intensive study in the Bible and theology to prepare students for the ministry."[229]

Confessional college or university. Those colleges or universities that currently acknowledge and embrace a Christian or denominational identity in their mission statements and alter their policies, governance, curriculum, and ethos considering their Christian identity.[230]

Dualism. This term is used by William G. Perry, in his schema, describing a belief in opposing views, such as good versus evil, or right versus wrong.[231]

Epistemology. The study of knowledge.[232]

Liberal arts college. The Association of American Colleges and Universities' definition is used for this thesis: "A particular type of institution, often small, often

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[229]Judy Moseman, "What about Bible College," *Christian College Guide*, 1, accessed September 20, 2016, http://www.christiancollegeguide.net/article/What-About-Bible-College.

[230]Perry L. Glanzer, Joel A. Carpenter, and Nick Lantinga, "Looking for God in the University: Examining Trends in Christian Higher Education," *Higher Education* 61, no. 6 (2011): 725.

[231]Perry, *Forms of Intellectual and Ethical Development*, 59-61.

[232]D. A. Truncellito, "Internet Encyclopedia of Psychology, A Peer Reviewed Resource," 2007, accessed February 15, 2016, http://www.iep.utm.edu/epistemo/.

residential, that facilitates close interaction between faculty and students, and whose

curriculum is grounded in the liberal arts disciplines."[233]

Liberal education: The Association of American Colleges and Universities'

definition is used in this thesis:

> An approach to college learning that empowers individuals and prepares them to deal with complexity, diversity, and change. This approach emphasizes broad knowledge of the wider world (e.g., science, culture, and society) as well as in-depth achievement in a specific field of interest. It helps students develop a sense of social responsibility; strong intellectual and practical skills that span all major fields of study, such as communication, analytical, and problem-solving skills; and the demonstrated ability to apply knowledge and skills in real-world settings.[234]

Multiplicity. A term used by Perry in his schema describing a "paradoxical

incongruity between a process in personal development and the nature of modern liberal

education."[235]

Non-confessional college or university. This term is defined as a college or

university with no current profession of Christian faith as part of its core values or

beliefs. Even if the school was a confessional college in the past, it now has no required

statement of Christian beliefs, faith, or creed of which faculty and staff must adhere to.

Perennialism. The following definition is used in this thesis:

> To teach ideas that are everlasting, to seek enduring truths which are constant, not changing, as the natural and human worlds as their most essential level, do not change. Teaching these unchanging principles is critical. Cultivation of the intellect is the highest priority in a worthwhile education.[236]

Pragmatism. The following definition is used in this thesis:

> A philosophical movement that includes those who claim that an ideology or proposition is true if it works satisfactorily, that the meaning of a proposition is to

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[233]Association of American Colleges & Universities, "What Is a 21st Century Liberal Education?" accessed August 4, 2016, https://www.aacu.org/leap/what-is-a-liberal-education.

[234]Ibid.

[235]Perry, *Forms of Intellectual and Ethical Development*, 72.

[236]Oregon State University, "Philosophical Perspectives in Education," accessed February 15, 2016, http://oregonstate.edu/instruct/ed416/PP3.html.

be found in the practical consequences of accepting it, and that unpractical ideas are to be rejected.[237]

Pre-ministry. Pre-ministry college students are preparing to work professionally in full-time Christian ministry or work—studying in preparation to go into the ministry.

Relativism. The Stanford Encyclopedia of Philosophy defines this philosophical position as there being "no ready consensus on any one definition."[238]

Secularism. The National Secular Society defines secularism as "a principle that involves two basic propositions. The first is the strict separation of the state from religious institutions. The second is that people of different religions and beliefs are equal before the law."[239]

[237]D. McDermid, "Pragmatism," *Internet Encyclopedia of Philosophy*, 2006, accessed February 15, 2016, http://www.iep.utm.edu/pragmati/.

[238]*Stanford Encyclopedia of Philosophy*, "Relativism," accessed February 15, 2016, http://plato.stanford.edu/entries/relativism/.

[239]National Secular Society, "What Is Secularism," accessed February 10, 2015, http://www.secularism.org.uk/what-is-secularism.html.

CHAPTER 3

METHODOLOGY

Using the Perry Scheme as the theoretical lens, this study explored the epistemological development of Evangelical Christian pre-ministry students attending a confessional Christian liberal arts college, as opposed to those attending a non-confessional liberal arts college. This chapter highlights the research methodology including research question, purpose of research, research design, population, sample, delimitations of the research, as well as limits of generalization, instrumentation, and procedures.

It is important to acknowledge how this study complements and extends a larger body of research initiated and managed by John David Trentham. This research is an extension of Trentham's 2012 Ph.D. dissertation surrounding pre-ministry students, epistemology, and the Perry Scheme.[1] For this reason, and to ensure compatibility of findings and generalizations by replicating the preceding methodological design, several methodologies and tools were utilized from the original Trentham study.

Research Questions—Synopsis

1. What is the relationship, if any, between the nature of pre-ministry undergraduates' epistemological positioning and attendance at either a confessional or non-confessional institution?

2. What distinctive contextual dynamics may be observed at confessional versus non-confessional colleges and universities that may impact an evangelical student's epistemic maturity and missional commitment?

3. How may a typical non-confessional liberal arts collegiate environment compare with a typical secular university environment with regard to a pre-ministry student's personal development and vocational preparation?

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[1]John 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).

Purpose Statement

The purpose of this study was to explore the variance of epistemological development in Evangelical Christian pre-ministry students attending confessional Christian liberal arts colleges or universities versus those attending non-confessional liberal arts colleges or universities, using the Perry Scheme as the theoretical lens.[2]

Design Overview

As this study aimed to learn the experiences, development, and attitudes of college students, the research employed a qualitative research design and methodology. McCusker and Gunaydin wrote how qualitative research focuses more on answers of those involved in the research, compared to simply highlighting data.[3] Questions from qualitative research seek to answer the "how," "why," and "what."[4] By using a qualitative research model, the researcher better understands the perspectives of the pre-ministry students being studied.

To locate an appropriate sample of students, I conducted preliminary research to identify a listing of confessional versus non-confessional colleges. This was done by inquiring of those within Christian Higher Education and reviewing information from Christian organizations, such as the Council for Christian Colleges and Universities.[5] Upon compiling an initial list of colleges and universities, the list was narrowed to a subset of institutions in which a more detailed review was conducted. This review was completed by reading the statements of faith, value statements, and other information made available through the institution's published materials.

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[2]William G. Perry, Jr., *Forms of Intellectual and Ethical Development in the College Years: A Scheme* (New York: Holt, Rinehart, and Winston, 1968), 57-176.

[3]Kevin McCusker and S. Gunaydin, "Research Using Qualitative, Quantitative or Mixed Methods and Choice Based on the Research," *Perfusion* 30, no. 7 (2015): 537-42.

[4]Ibid., 537.

[5]Council for Christian Colleges and Universities, "Members and Affiliates," accessed March 27, 2016 http://www.cccu.org/members_and_affiliates.

To gain permission to interview potential students, campus pastors, academic deans, chairs of Christian ministry departments, parachurch campus directors, or others were contacted. These individuals were contacted by email or phone. I explained the study, the reason for the study, and the value of the study. Contact information was then requested of potential subjects.

Once an appropriate list of pre-ministry students was compiled, the process of contacting the students began. Qualified students were contacted by email or text to obtain their agreement to participate. This message explained the scope and general intent of the research. A small gift of appreciation, in the form of a ten-dollar gift card, was offered to help gain student participation.

Upon confirmation of a representative sample of enlisted students, phone interviews were scheduled. This was accomplished by forwarding a copy of the Thesis Study Participation form (see appendix 1), which is an adaptation of Trentham's Dissertation Participation Form. Upon garnering the appropriately completed participation forms, I conducted the interviews.

Students were provided dialing instructions to join a conference call using a free service called "freeconferencecall.com." All calls were conducted on this free service and recorded using their free recording tool. Approval to record the conversation was requested prior to recording, which allowed the conversation to be transcribed for further review. The interview allowed enough flexibility that students had the latitude to express their own thoughts and perspectives on the subject. After the call, recordings were downloaded to MP3 files and saved in Dropbox for free secure storage.

As this study coincides with a much larger body of research, I used an adaptation of the interview protocol previously used by John David Trentham (see appendix 4). Trentham used an adaptation of the William G. Perry Interview Protocol (see appendix 2).[6] A qualitative, semi-structured interview protocol allows for the gathering of rich

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[6]Trentham, "Epistemological Development," 132.

data, while considering the language of those interviewed, in addition to contextual and relational aspects, in determining the interviewee's perceptions and values (Newton, 2010).[7]

Once interviews were completed, the data was reviewed and transcribed. Transcribed data was then forwarded to William S. Moore, director at the Center for the Study of Intellectual Development (CSID).[8] The CSID formally coded and rated the data utilizing the internal rating procedure called the Measure of Intellectual Development (MID).[9]

Upon completion of CSID's scoring, I completed my own independent content analysis of the data. This analysis was completed by utilizing Trentham's framework of epistemological priorities and competencies as an evaluative paradigm.[10]

Research Population

The population for this study was evangelical undergraduate students attending or recently graduated from confessional and non-confessional liberal arts colleges or universities in the United States that self-identified as pre-ministry. The population included residential, commuter, or on-line students.

The sample for this study included pre-ministry students from the population who were attending or recently graduated from a confessional Christian liberal arts college or university, as well as pre-ministry students attending or recently graduated from a non-confessional liberal arts college or university. These institutions were regionally

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[7]Nigel Newton, "The Use of Semi-Structured Interviews in Qualitative Research: Strengths and Weaknesses," *Academia.edu*, 2010, 2, accessed April 28, 2016, https://www.academia.edu/1561689/The_use_of_semi-structured_interviews_in_qualitative_research_strengths_and_weaknesses.

[8]The Perry Network, "Assessment and Research Support," accessed February 27, 2016, http://perrynetwork.org/?page_id=13.

[9]See appendix 5.

[10]Trentham, "Epistemological Development," 239.

accredited by an approved educational accrediting body, as listed by the United States Department of Education.[11]

Examples of such accrediting bodies include the North Central Association of Colleges and Schools-the Higher Learning Commission, and the Southern Association of Colleges and Schools-Commission on Colleges. Examples of confessional liberal arts colleges targeted included Williams Baptist College, Cedarville, and Ouachita University. Examples of non-confessional liberal arts colleges targeted included Mercer University, The College of Wooster, and Baylor University.

Delimitations of the Research

1. This study was delimited to undergraduate student seniors currently enrolled in or recently graduated from a four-year undergraduate confessional or non-confessional liberal arts college or university.

2. This study was delimited to students who self-declared themselves to be pre-ministry and intended, at the time of the study, to go into full-time vocational Christian ministry.

3. This study was delimited to pre-ministry students enrolled in their senior year in college, or who recently graduated.

4. This study was delimited to self-described evangelical Christian pre-ministry students.

5. This research was delimited to "traditional" college seniors or recent graduates (ages 20-25). This delimitation eliminated factors of variability within the sample that could potentially negate the significance of the findings.

Limitations of Generalization

1. As this study was delimited to pre-ministry students attending undergraduate colleges or universities, it does not apply to those pre-ministry students attending community colleges, Bible institutes, or graduate institutions.

2. This research was specific to pre-ministry students and does not apply to other Christian students who were not self-declared pre-ministry.

3. This research only included evangelical Christian students who considered themselves to be pre-ministry and intend on working in full-time ministry vocations, such as pastors, ministers, church directors, and missionaries, as well as those

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[11]US Department of Education, "Database of Accredited Postsecondary Institutions and Programs," accessed January 27, 2016, http://ope.ed.gov/accreditation/.

pursuing various full-time ministry opportunities within churches or para-church organizations. For this reason, the research findings may not apply to other evangelical Christian students who pursue other career interests.

4. These research findings were intended for the specific institutional contexts upon which the study was originally conducted, and may not apply to other contexts.

Instrumentation

Wherever possible, this study utilized the instruments from Trentham's original 2012 research. This was done to replicate the original study while expanding the research to focus on pre-ministry students attending confessional Christian colleges or universities, and pre-ministry students attending non-confessional colleges and universities.

Thesis Study Participation Form

To gain permission from potential interviewees, each prospective student was sent the Thesis Study Participation Form (see appendix 1). Completed forms were used to document the students' willingness to freely participate in the study, while also assisting me in ensuring the student met requirements for the required target research group. The form also provided important background information on the students' institution, degree major, church background, previous ministry involvement, as well as their rationale for pursuing full-time vocational ministry.

Interview Protocol

Upon proper completion and receipt of participation forms, the second phase of the research began. The second phase involved semi-structured interviews using Trentham's Interview Protocol (see appendix 4), as adapted from Perry's original Standardized Interview Protocol (see appendix 2) and Perry's Alternate Interview Protocol (see appendix 3). The interviews originated by using pre-determined open-ended questions, allowing for additional questioning and probing of the student as the student shared experiences during their college experience.

<center>**Procedures**</center>

As this study coincided with a larger institutional research project, I was careful to mirror data collection procedures used originally by Trentham, as well as more recent studies conducted by Cannon (2015), Long (2015), and Sanchez (2015).[12] Data collection procedures varied slightly based on the nature of this specific research study.

Participation Confirmation

The objective was to locate multiple confessional Christian liberal arts colleges or universities, and multiple non-confessional liberal arts colleges or universities from which to find participants. Within these institutions, thirty participants were sought for interviews. Fifteen from confessional institutions and fifteen from non-confessional. This number was open to change based on guidance from the study supervisor.

The target population was students who identified as evangelical Christians, were undergraduate students attending a regionally accredited college or university, were currently in their senior year or recently graduated and not yet attending graduate school, and had declared their intent to work in full-time vocational ministry.

Pilot Study

To evaluate the interview techniques, observe how students relate to the interview questions and provide me with needed experience in the interview process, a pilot study was conducted. The pilot used two of the initial students agreeing to be interviewed. Results of the pilot interviews were transcribed and forwarded to the CSID for verification of the process being used, and confirmation that they are acceptable for

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[12]Bruce Richard Cannon, "Epistemological Development in Pre-Ministry Undergraduates Attending Confessional Christian Liberal Arts Colleges or Universities" (Ed.D. thesis, The Southern Baptist Theological Seminary, 2015); Gregory B. 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, 2015); Christopher Lynn Sanchez, "Epistemological Development in Pre-Ministry Undergraduates attending secular universities" (Ed.D. thesis, The Southern Baptist Theological Seminary, 2015).

<center>63</center>

scoring. The CSID provided feedback regarding appropriateness, recommended changes, and enhancements to the interview protocol.

Conducting Interviews, Transcribing Interviews, Submitting Interviews

The average interview lasted forty-five to sixty minutes. Each interview was audio recorded to be properly transcribed. Upon transcription, interviews were forwarded to William Moore at the CSID for appropriate scoring and rating.

Perform Independent Content Analysis

As with previous studies completed within this larger body of institutional research, an independent content analysis was conducted. This analysis used Trentham's categories of epistemological priorities and competencies as listed[13]:

> (1) 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 (2) a clear articulation of the relationship between faith and rationality; (3) a preference for higher-level forms of thinking according to Bloom's Taxonomy;9 (4) a prioritization of wisdom-oriented modes of learning and living; (5) a reflective criteria of assessing one's own beliefs and values, as well as divergent beliefs and values; (6) a recognition of social-environmental influences on one's learning and maturation; (7) a pursuit of personal development that results from mutual interdependence and reciprocity in one's relationships with authority figures and peers; (8) a sense of personal responsibility for gaining, maintaining, and progressing in knowledge; (9) a preference for active involvement in the teaching and learning process; and (10) a convictional commitment to one's own worldview–maintained with critical awareness of personal contexts, ways of thinking, and challenges brought to bear by alternative worldviews–through testing and discernment. These ten elements may be classified in three categories: Biblically-founded presuppositions for knowledge and development (1); metacognition, critical reflection, and contextualistic orientation (2-5); and personal responsibility for knowledge acquisition and maintenance–within community (6-9).[14]

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[13]Trentham, "Epistemological Development," 136-38.

[14]Ibid., 137.

The following table is a representation of Trentham's categories.[15]

Table 1. Trentham's categorial chart for assessing epistemological priorities and competencies

Biblically-founded presuppositions for knowledge and development	Metacognition, critical reflection, and contextualistic orientation	Personal responsibility for knowledge acquisition and maintenance–within community
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	A preference for higher-level forms of thinking according to Bloom's taxonomy	A pursuit of personal development that results from mutual interdependence and reciprocity in one's relationships with authority figures and peers
A clear articulation of the relationship between faith and rationality	A prioritization of wisdom-oriented modes of learning and living	A sense of personal responsibility for gaining, maintaining, and progressing in knowledge
	A reflective criteria of assessing one's own beliefs and values, as well as divergent beliefs and values	A preference for active involvement in the teaching and learning process
	A recognition of social-environmental influences on one's learning and maturation	A convictional commitment to one's own worldview– maintained with critical awareness of personal contexts, ways of thinking, and challenges brought to bear by alternative worldviews– through testing and discernment

Analyze Research Findings and Draw Conclusions

Once the interviews were scored and rated, the research findings were provided to me for analysis and for drawing conclusions. This evaluation of findings and resulting conclusions were completed in compliance with previously established tools within this body of research. Student scores were analyzed and compared by gender,

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[15]Information taken from Trentham, "Epistemological Development," 138.

those attending confessional versus non-confessional institutions, confessional results from this study versus confessional results from previous studies, and non-confessional results from this study versus secular results from previous studies.

After general findings were deduced from the research, specific student responses were analyzed based on "Trentham's categories of epistemological priorities and competencies." I identified and summarized students exhibiting responses falling within the ten priorities. These summaries were forwarded to John David Trentham for further review and scoring. Upon Trentham's review and marking, Jonathan Stuckert also reviewed and provided confirmation of the marking, or argued his disagreement. This collaborative process led to a final summary set of students exhibiting responses in line with one, or more of the ten priorities.

CHAPTER 4

ANALYSIS OF FINDINGS

The primary focus of this research was the epistemological development of Christian pre-ministry college students attending confessional Christian liberal arts colleges or universities, and Christian pre-ministry students attending non-confessional liberal arts colleges and universities. The participants were college seniors or recent graduates with the intention of full-time vocational Christian ministry. This qualitative study, using a purposeful selection of interviewees and a semi-structured interview approach, followed Trentham's Interview Protocol. This chapter reports the analysis conducted while examining specific strengths and weaknesses of the research design.

Compilation Protocol

Data from this study was obtained through personal interviews of the population sample. Thirty-one members of the study population were interviewed, representing 18 different institutions, 14 different denominational associations, and 7 different states within the United States of America. The population sample was obtained by contacting college deans at college Christian ministry departments, campus ministry directors, campus ministers, parachurch staff missionaries, students directly, and students referred by other students

The approach to obtain contacts through networking versus sending out solicitation emails was selected after hearing of the low response rate from non-solicited emails. For instance, describing his 2015 research, Cannon wrote of his surprise to find

82 percent of those emailed did not even respond, and that was within his own denominational association.[1]

Twenty-eight people were contacted by phone, email, or text to locate the purposeful sample (see table 2). Eighteen responded to my contact of which 46 potential samples were referred. Of those referred, 42 were contacted and 36 responded. Ultimately, 31 students completed the full interview process. Phone interviews were approximately 45 to 60 minutes in length.

Table 2. Research contact and response

Category Contacted	Number of Contacted	Number of Responded	Referrals	Number of Students Contacted	Number of Students Responded	Number of Students Interviewed
Campus Minister	2	2	11	11	9	6
Parachurch Minister/Staff	20	12	22	22	20	19
Dean	2	2	9	3	2	1
Student Direct	N/A	N/A	N/A	2	2	2
Referral from Student	2	2	4	4	3	3
Campus Ministry Director	2	0	0	0	0	0
GRAND TOTAL	28	18	46	42	36	31

Prior to interviews, each student was emailed the Thesis Study Participation Form.[2] This form requested the student's consent to participate in the research, in addition to collecting basic demographic and college participation information. Upon

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[1]Bruce Richard Cannon, "Epistemological Development in Pre-Ministry Undergraduates Attending Confessional Christian Liberal Arts Colleges or Universities" (Ed.D. thesis, The Southern Baptist Theological Seminary, 2015), 62-63.

[2]See appendix 1 for Thesis Study Participation Form.

receipt of the completed and signed participation form, the data was reviewed to ensure the sample was consistent with the parameters of this study.

Interviews were conducted using Trentham's Interview Protocol, which is an adaptation of the Standardized Perry Interview Protocol.[3] Interviews occurred via telephone conference call, using FreeConferenceCall.com.[4] The student and the interviewer dialed into the conference call with a specific conference call telephone number and password. At the beginning of the call, each student was informed how the call would be recorded for transcription purposes.

Each interview audio file was downloaded and manually transcribed with the assistance of contracted transcription support.[5] I utilized two transcriptionists for this project. The transcribed interviews were then emailed to William S. Moore, Director of the CSID, for evaluation and formal coding and rating. Coding and ratings were assigned using the Measure of Intellectual Development (MID), evaluating student's epistemological progress based on the Perry Scheme. I also conducted my own independent analysis of the data. Participating students were mailed a thank you card and a ten dollar gift card as a gesture of appreciation for their time and assistance.

Participation Data

Use of the Thesis Study Participation Form and the individual interview transcripts provided the data necessary to analyze the sample population. It also helped me better understand the background, interests, and ministry commitments of each

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[3]See appendices 4 and 2 for the Trentham Interview Protocol and the Standardized Perry Interview Protocol.

[4]FreeConferenceCall.com, accessed November 7, 2016, www.freeconferencecall.com/fcc?gclid=COW9sNGomNACFRCRaQod3ucGGw&marketingtag=sqsYjBSnT_pcrid_141033609535_pdv_c&promocode=FCC_PPC_GS_US_EN_283. FreeConferenceCall.com is a free service offering conference calling, call recording, meetings, screen sharing, video conferencing, and remote desktop. FreeConferenceCall.com was also used to record the interviews.

[5]Transcriptions were saved on an offsite secure storage server, Dropbox. Dropbox.com is an offsite file storage service allowing individuals and organizations to store files, pictures, and videos so to be able to pull them up while traveling.

sample. The student's completion of the Thesis Study Participation Form also provides another manner of commitment by the student to participate in the study, while also facilitating the interview scheduling process. Analysis of the documents provided data for comparing the diversity, variation, and similarities of the sample population. The following observations and tables highlight information surrounding this sample population.

Gender

Considering recent trends, it was not a big surprise that many of the college students willing to participate in this research were female. A 2014 Pew Research Survey article wrote of a 2012 study showing the number of women attending college out of high school rose to 71 percent, compared to men remaining flat at just 61 percent.[6]

For this research, 20 out of 31, or 65 percent of the sample taken from the population, were women (see table 3). Men comprised just 11, or 35 percent of the population. This research varies greatly from Perry's original longitudinal study, where all samples used were male.[7] It is also significantly different from similar previous studies of undergraduate students completed by Trentham, Long, Sanchez, and Cannon, who had mostly males in their sample population.[8] The highest percentage of women in the predecessor studies being in Cannon's study of pre-ministry students attending

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[6]Mark Hugo Lopez and Ana Gonzalez-Barrera, "Women's College Enrollment Leave Men Behind," 1, Pew Research Center, March 6, 2014, accessed November 12, 2016, http://www.pewresearch.org/fact-tank/2014/03/06/womens-college-enrollment-gains-leave-men-behind/.

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

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

confessional colleges and universities, where he documented 33 percent of his sample as women.[9] This is still one-half of the female participants compared to the current study.

Table 3. Gender participation

	Female Participants	Portion of Population	Male Participants	Portion of Population
Perry	0	0%	107	100%
Trentham	4	13%	26	87%
Long	6	20%	24	80%
Sanchez	8	27%	22	73%
Cannon	10	33%	20	67%
Leatherman	20	65%	11	35%

Institutional and Denominational Representation

Eighteen institutions and 7 states within the United States of America were represented in this research (see table 4). Except for 2 colleges, each institution in the study is either currently associated with a Christian denomination or association, loosely associated with a Christian denomination or association, or was previously associated with a Christian denomination or association. Of the remaining 2, 1 is a Christian non-denominational institution and the other is a non-sectarian institution.

The institutions represented were all listed as liberal arts colleges or universities at the time of the research. I internally classified these institutions as confessional or non-confessional institutions based on a review of the institution's website, review of other websites, and/or conversations with others in higher education, following parameters comparable to preceding studies. Cannon provides the following definition of a confessional institution:

> These 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

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[9]Cannon, "Epistemological Development," 66.

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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.[10]

Sixteen students in the sample were classified as having attended confessional institutions and 15 attended non-confessional institutions.

Table 4. Institutional type, locale, and denominational association representation

Institution	Type	State	Denominational Association/other	Students
Williams Baptist College	Confessional	AR	Southern Baptist Convention	6
Calvin College	Confessional	MI	Christian Reformed Church	2
Wheaton College	Confessional	IL	Evangelical Protestant	1
Indiana Wesleyan	Confessional	IN	Wesleyan Church	1
Dallas Baptist University	Confessional	TX	Baptist	2
King University	Confessional	TN	Presbyterian	1
Ouachita Baptist University	Confessional	AR	Southern Baptist Convention	1
Crowley's Ridge	Confessional	AR	Church of Christ	1
Cedarville University	Confessional	OH	General Association of Regular Baptist Churches & SBC	1
Texas Women's College	Non-Confessional	TX	Non-Sectarian	1
Baldwin Wallace	Non-Confessional	OH	United Methodist Church	4
Grove City College	Non-Confessional	OH	Christian Non-Sectarian	1
Baylor University	Non-Confessional	TX	Baptist	2
Butler University	Non-Confessional	IN	Founded by Disciples of Christ	1
Otterbein University	Non-Confessional	OH	Founded by United Brethren in Christ	1
Capital University	Non-Confessional	OH	Lutheran Tradition	2
Vanderbilt University	Non-Confessional	TN	Founded by Methodist Episcopal	2
University of Mt Union	Non-Confessional	OH	United Methodist Church	1

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[10]Cannon, "Epistemological Development," 2n7.

Degree and Program of Study

Two study participants who attended confessional colleges or universities and 3 study participants who attended non-confessional colleges or universities pursued dual majors (see table 5). Of the participants, the most popular major for those who attended confessional colleges was Christian ministry. Alternatively, the most popular major for those who attended non-confessional colleges was communications. For those who attended confessional colleges or universities, several students who chose majors other than Christian Ministry still intended to utilize their major in vocational ministry. It should be noted that this study did not verify that each institution offered the same array of majors, so this could explain some of the variation. For instance, many of the non-confessional institutions would not likely have offered "Christian Ministry" as a major option. This study did not research which students, if any, would have chosen a different major if they had been afforded the opportunity.

Table 5. Study participants' program of study

Confessional Institutions		Non-Confessional	
Major (or part of double major)	Number of Students	Major (or part of a double major)	Number of Students
Christian Ministries	4	Communications	4
Psychology	3	Biology	2
Spanish	2	Philosophy	1
Music	2	Public Relations	1
Bible	1	History	1
Business	1	Math	1
History	1	Business (leadership, mgt.)	1
Marketing	1	Youth Ministry	1
Communications	1	Religion	1
Elementary Education	1	Entrepreneurship	1
Linguistics	1	Elementary Education	1
		English	1
		Exercise Science	1
		Psychology	1

Campus Ministry Involvement

Most students participating in this study were involved in campus ministry (see table 6). Although, those who attended confessional colleges or universities were predominantly involved in internal campus ministry, including different versions of campus sponsored Baptist College Ministries. This participation may be because of the number of Baptist institutions involved in the study.

Those who attended non-confessional colleges or universities were predominantly involved in parachurch organizations, such as CRU (previously known as Campus Crusade for Christ). Three of the 15 study participants who attended non-confessional colleges or universities stated they did not participate in any campus ministry, even though they intended to pursue vocational Christian ministry. Some in the study participated in more than one campus ministry.

Table 6. Campus ministry involvement

Confessional Institutions: Campus Ministry Involvement	Number of Students	Non-Confessional Institutions: Campus Ministry Involvement	Number of Students
BCM/BSM/BSN	7	CRU (including AIA)	11
Internal Campus Bible Studies	4	None	3
Internal Campus Ministries	3	Internal Campus Ministries	1
CRU (Including AIA)	3	BSM	1
FCA	1	Mission Organizations	1
Mission Organizations	1		
Wesley Foundation	1		

Timing of Calling to Ministry

Students were asked when they felt called into full-time Christian ministry. For study participants who attended confessional colleges or universities, 6 were called into ministry during high school or the summer directly after their high school graduation. The rest felt called during their college experience. For students who attended non-

confessional colleges or universities, 3 were called into ministry during high school, with the majority feeling called during their college experience.

Table 7. Time of calling to ministry

	High School	After High School	College Junior	College Senior	Other/During College
Confessional	3	3	2	1	7
Non-Confessional	3	0	2	3	7

Research Question Synopsis

The primary research questions used for analysis of the data are as follows:

1. What is the relationship, if any, between the nature of pre-ministry undergraduates' epistemological positioning and attendance at either a confessional or a non-confessional institution? The following two sub-questions were used for closer examination of the data.

2. What distinctive contextual dynamics may be observed at confessional versus non-confessional colleges and universities that may impact an evangelical student's epistemic maturity and missional commitment?

3. How may a typical non-confessional liberal arts collegiate environment compare with a typical secular university environment with regard to a pre-ministry student's personal development and vocational preparation?

Summary of Findings

This research involved the interviewing of 31 students, with each interview being carefully transcribed. Upon transcription, transcribed files were forwarded in batches to William S. Moore, Coordinator of the CSID, to review and score. This section provides an overview of the rating and procedures used by the CSID, in addition to general findings from my research.

CSID Ratings and Reporting

Each of the transcribed interviews forwarded to William S. Moore was scored by raters specifically trained in the Perry Scheme and the MID process developed in 1978 by Knefelkamp, and the CSID in 1982.[11] The instrumentation focused on the cognitive

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[11]See appendix 6 for Measure of Intellectual Development Ratings Interpretation by the CSID.

portion of the Perry Scheme and was given a score along a continuum from 1 to 5. In practice, it is assumed that no student arrives in college at a position of 1, so the MID ratings range from 2 to 5.[12]

The ratings are detailed as three-digit numbers compiled by two individual rater's ratings and a third rating, which is a reconciled rating. A solid or "stable position" rating would be 333. A variation of this score could be a 233, where position 3 is considered dominate with the position 2 considered as trailing. A rating of 223 would be considered a position 2 dominate, which opens to position 3.[13] For this study, 4 participants were given solid stable positional ratings (e.g., "333"), with an additional 5 participants receiving solid stable positional ratings with a glimpse of the next positioning (e.g. "333" (4)). The remaining 22 participants received a transitional rating such as "344," or "233," etc.

Table 8. Primary cues cited among sample population

Position Number	Primary Cues
2	• Learning as information exchange. • Emphasis on 1 to 1 relationship with teacher
3	• Concern with process/methods/how to learn. • Opening to multiplicity (multiple perspectives). • Focus on practicality/relevance. • Learning a function of teacher/student relationships. • Quantity/qualifiers; lots of details. • Focus on challenge/hard work = good grades.
4	• Focus on ways of thinking-How to think. • "New Truth" rules (absolutes within multiplicity). • Teacher a facilitator/guide (source of ways to think). • Student more active, taking more responsibility for learning. • Comfort with multiplicity, connections across disciplines.
5	• Understanding of different frames of reference. • Strong sense of self-as-agent in self-learning. • Endorses seminar, argument, discussion of ideas.

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[12]William S. Moore, "Interpreting MID Ratings" (Olympia, WA: Center for the Study of Intellectual Development, 2004), 1.

[13]Ibid.

MID ratings can be used categorically, or as continuous data. For use in statistical comparison and analysis, the ratings can be converted to scores, thus allowing for the analysis of means, medians, and standard deviations.[14] The CSID affirms that no formal normative data for the MID has been developed. It recommends norms and norm-based standards to be developed at the course, program, or institution level.[15]

The CSID provided a list of primary cues associated with this study, based upon the MID and the research interviews. These cues were for positions 2, 3, 4, and 5. There were no cues for position 1 as, in practice, it is assumed that students enter college in position 2. Primary cues are listed in table 8.

Generalized Findings

The mean score for the total research was 3.19 (see table 9). The mean for those attending confessional institutions was 3.27, with the mean for those attending non-confessional colleges being 3.11. The confessional institution mean of 3.27 was somewhat higher than the total mean of 3.15 for Cannon's study of pre-ministry students attending confessional institutions.[16] Although, the mean for my study was lower than Trentham's mean of 3.53 for the part of his study researching pre-ministry students attending confessional institutions.[17]

The mean score for those in this study attending non-confessional institutions was 3.11. This compares closely with Trentham's mean of 3.135 for his research subset of pre-ministry students who attended secular institutions.[18] My research mean for those

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[14]Moore, "Interpreting MID Ratings," 2.

[15]Ibid., 3.

[16]Cannon, "Epistemological Development," 71-72.

[17]Trentham, "Epistemological Development," 152.

[18]Ibid., 163.

who attended non-confessional institutions is almost identical to Sanchez's research mean of 3.10, where he studied pre-ministry students who attended secular institutions.[19] This similarity may be due to some confessional or non-confessional institutions transitioning toward secularization, with professors speaking and acting increasingly like those from secular institutions. As an example, Ruth spoke about her experience while attending a confessional institution.

> And that's where I encountered a lot of the _____ beliefs that I disagreed with. So, one thing _____ really believes in is the Bible as a metaphor, and the Bible is not literal in a lot of circumstances. It's just saying something metaphorically and they said that about a lot of the Old Testament. And, I disagree with that. I think that the stories in the Old Testament are true, and they really happened. So that was really hard. Yeah, some of the books are metaphors I guess, but like Proverbs is wisdom, that's a metaphor. And some of the parables, but otherwise you know so and so. Like the sun that never sets. 1 Kings, or somewhere. They said that's a metaphor because that couldn't have happened, but I think that's a miracle

Table 9. MID scores, means, and medians

	Total Study	Confessional	Non-Confessional
Mean	3.19	3.27	3.11
Median	3.33	3.33	3

Specific to gender, 65 percent of those in my research were women and 35 percent men. The mean score of females in my research was 3.18, where the mean of males in my research was 3.21. This similarity among scores coincides with the CSID's findings of "no consistent difference by gender."[20]

Women in my study who attended confessional institutions had a higher average score of 3.33, compared to those who attended non-confessional institutions averaging 3.03 (see table 10). Although, men in my study who attended confessional institutions had an average score of 3.17 compared to those who attended a non-confessional institution, which had an average of 3.27. This discrepancy could be due to

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[19]Sanchez, "Epistemological Development," 71.

[20]Moore, "Interpreting MID Ratings," 3.

the small sample size of men compared to women, or the possibility of women being less forthcoming or more inhibited in an interview with a man rather than a woman.

Table 10. MID score means by gender and study type

	Total Study	Confessional	Non-Confessional
Women	3.18	3.33	3.03
Men	3.21	3.17	3.27

Fifteen students (48 percent) in this study scored below position 3, which is below the typical range of between 3 and 4 of the Perry scores. Fifteen students (48 percent) were rated inside the typical range of 3-4. Only 1 student scored higher than the typical range by scoring higher than a position 4 in the Perry positioning. No students in this study scored a 5 in the Perry positioning. These results align with the CSID comparison of college students by its use of the MID. The CSID has found how most traditional college age students enter college in position 2 and exit college, four years later, somewhere between position 3 and 4.[21]

Table 11 shows percentages of confessional Christian liberal arts students in each range. For those in my study who attended confessional institutions, 6 (37.5 percent) scored below position 3. Ten (62.5 percent) scored between 3-4, and none (0 percent) scored above a 4. These results are close to Cannon's results of students who attended confessional institutions. His research had 40 percent below the typical range, 57 percent within the typical range, and 3 percent above the typical range.[22] Trentham's results were very different, with 30 percent above average, 40 percent average, and 30 percent below average range.[23] This difference may be due to the smaller sample size of Trentham's confessional research subset, or the smaller number of institutions from which students

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[21]Moore, "Interpreting MID Ratings," 3.

[22]Cannon, "Epistemological Development," 72.

[23]Trentham, "Epistemological Development," 152-65.

were selected, or the nature of the particular institutions and students represented in Trentham's study.

Table 11. Percentage of confessional Christian liberal arts students in each range

	Below Average	Average	Above Average
Leatherman	37.5% (6)	62.5% (10)	0% (0)
Cannon	40% (12)	56% (17)	3% (1)
Trentham	30% (3)	40% (4)	30% (3)

Table 12 shows the percentage of non-confessional liberal arts students in this study, within each range. It also compares these percentages within each range of other like studies, but with students attending secular colleges or universities. For this study, 60 percent (9) of the students who attended non-confessional institutions scored below the typical range of 3-4. Thirty-three percent (5) scored within the typical range, and 7 percent (1) scored above average. These results are very close to Long's research, which had 56.7 percent (17) of students attending secular institutions scoring below average. He also showed 36.7 percent (11) falling within the average range, and 6.7 percent (2) showing above the normal average range.

Table 12. Percentage of non-confessional liberal arts students in each range, compared to the percentage of secular institution students in each range

	Below Average	Average	Above Average
Leatherman (Non-conf. Liberal Arts)	60% (9)	33% (5)	7% (1)
Long (Secular)	56.7% (17)	36.7% (11)	6.7% (2)
Trentham (Secular)	50% (5)	30% (3)	20% (2)

Positional Examples

During this research, each completed transcript was forwarded to the CSID for review and rating by trained Perry Scheme experts. The experts analyzed the transcripts for specific cues that would identify a student's position along the Perry Scheme. As is the case in practice, no transcripts fell to a category 1. Ratings started with the position 2-3

at the lowest, and 4-5 at the highest. Table 13 displays actual examples of student interview statements that were rated in position 2, or transition 2-3 categories. The primary cues are (1) learning as information exchange and (2) emphasis on the 1-to-1 relationship with the teacher. Pseudonyms are used to protect the confidentiality of the students.

Table 13. Examples of student statements among positions 2 and 2-3

Sample Statement	Position	Primary Cue
Larry: I think being able to use that situation and kind of think back on what have I already studied, and what I know to be true and be right. I think I would make my decision based off of what I already know.	2+	Learning as information exchange
Alice: good access to the professor for guidance if needed.	2-3	Emphasis on a 1-1 relationship with the teacher.
Victoria: I personally like it when it's very organized and I know what to expect. And just also a good variety of maybe class, the way the class is set up. But also, interactive as well.	2-3	Concern with Process/Methods-How to learn.
Zayle: I think the teacher needs to be a teacher as well as a mentor. There needs to be a division where the teacher is the authority, but also a closeness where you can approach that teacher and receive personal individual training with that teacher.	2-3	Learning a function of teacher-student relationships.
Martha: it depends on the area of study, definitely. As far as for me the field I'm in right now, a lot of the people I work with don't necessarily need the degree. They took a lot of certification exams to get where they are, but for me, I have the knowledge, and the background and the science that kind of help bring it all together to give me a higher level of learning. So I guess it depends, like, I guess if someone wants to be a mechanic they don't have to go to school for four years because they can learn that in high school, at a career center or something. So I just think it kind of depends on what you're passionate about and what you enjoy. I don't think that there is any ideal college education. I think everybody should have something.	2-3	Focus on practicality/relevance

Table 14 displays actual examples of student interview statements that were rated in position 3 categories. The primary cues were (1) concern with process/ methods—how to learn, (2) opening to multiplicity (multiple perspectives), (3) focus on

practicality/ relevance, (4) learning a function of teacher/student relationships, (5)

quantity/qualifiers; lots of details, and (6) focus on challenge/hard work=good grades

Table 14. Examples of student statements among position 3

Sample Statement	Position	Primary Cue
Heather: They're excited about what they are teaching. I'm excited about what they are teaching. If they are taking personal interest in us, like a student, and us individually as a student, then those are my top two. Makes me feel like I want to be there, and makes me feel wanted to be there.	3	Learning a function of teacher/student relationships.
Emily: Even though I don't necessarily enjoy them, I think papers, because you put a lot of time into a paper, and research, more than you do for a test. And so you remember it better than if you just memorize it for a test.	3	Focus on challenge/hard work= good grades.
Todd: I have learned to have solid relationships with people of different belief systems, people with different sets of values and so on so forth.	3	Open to multiplicity (Multiple Perspectives)

Table 15 displays actual examples of student interview statements that were

rated in position 4 categories. The primary cues are (1) focus on ways of thinking—how

to think, (2) "New Truth" rules (absolutes within multiplicity), (3) teacher a facilitator/

guide (source of way/s to think), (4) student more active, taking more responsibility for

learning, and (5) comfort w/multiplicity, connections across disciplines.

Table 16 displays an actual example of a student interview statement that was

rated in the transition 4/5 position. This research had one student scoring a 4/5 position,

which was the highest rating in this study. The primary cues are (1) understanding of

different frames of reference, (2) strong sense of self-as-agent in own learning, and (3)

endorses seminar, argument, discussion of ideas

Table 15. Examples of student statements among position 4

Sample Statements	Position	Primary Cue
Barb: A good college course is one that makes you think but not just stay within your own thought. A good college course will bring up different ideas and different opinions and let you, yourself, weigh them and figure out what you think instead of saying, here is the answer and this is what it must be.	4	Student more active. Taking more responsibility for learning.
Ann: professors who make you think and who aren't just trying to get you an A, but they're trying to help you grow mentally	4	Teacher a facilitator/ guide. (Source of ways to think)
Barb: I wish I could say that they have made me want to share the gospel more. But, I think at times they have made me realize how poorly equipped I am for expressing my faith and why I believe what I believe. Through _____, I've come to be able to say things more but I still find myself not necessarily using gospel-centered words that point to God when I talk about encouraging someone or having stamina or perseverance. And so sometimes that's hard because I think about my future and I realize that I'm not just gonna be interacting with people who are Christians or who go to a Christian college and I would understand how it is expected that they will behave.	4+	Comfort with Multiplicity- Connections across disciplines.
Mark: the most beneficial (assignments) are papers or some kind of writing. That's when you get to produce what you're saying and it's really coming from you versus showing that you can memorize something. Memorization is great and I was really good at that in college. But, I felt like I was able to express myself more in papers and I really got to put my thoughts down. So, as hard as papers might be, I really do think that they are the best way to both allow a student to express what they learned as well as to grade on how much they have learned.	4	Focus on ways of thinking-How to think.

Table 16. Example of student statement among transition position 4/5

Bill: we sometimes think of doubt as something that pulls us away from God or that is pushing us away, but it can actually be a way that He is drawing us closer to Him where we truly believe or we re-examine and are drawn closer to Him by doubting. So, I think it's been all positive.

Trentham's Epistemological Priorities and Competencies

Through his Ph.D. dissertation, Trentham developed what is now called

Trentham's Epistemological Priorities and Competencies.[24] There are three categories

and ten priorities and competencies within those categories. The specific categories, with

associated priorities and competencies are listed in table 17.[25]

Table 17. Representation of Trentham's Categorical chart for assessing epistemological priorities and competencies

I. Biblically-founded presuppositions for knowledge and development	II. Metacognition, critical reflection, and contextualistic orientation	III. Personal responsibility for knowledge acquisition and maintenance–within community
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	A preference for higher-level forms of thinking according to Bloom's taxonomy	A pursuit of personal development that results from mutual interdependence and reciprocity in one's relationships with authority figures and peers
A clear articulation of the relationship between faith and rationality	A prioritization of wisdom-oriented modes of learning and living	
	A reflective criteria of assessing one's own beliefs and values, as well as divergent beliefs and values	A sense of personal responsibility for gaining, maintaining, and progressing in knowledge
	A recognition of social-environmental influences on one's learning and maturation	A preference for active involvement in the teaching and learning process
		A convictional commitment to one's own worldview–maintained with critical awareness of personal contexts, ways of thinking, and challenges brought to bear by alternative worldviews–through testing and discernment

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[24]Trentham, "Epistemological Development," 166-79.

[25]Ibid., 138.

During my independent analysis of the transcripts, I searched for examples of statements that qualified as representing each of the priorities and competencies. Then, I summarized and forwarded to Trentham who scored and provided comments and observations. Following this, Jonathan Stuckert, another researcher who recently completed a similar study surrounding epistemological development among seminary students, reviewed the submission.[26] The joint analysis resulted in a collaborative dialogue between all three parties. This three-party collaborative effort resulted in agreement on examples demonstrating the priorities and competencies. The resulting data complements the MID ratings from the CSID's review of the transcripts, providing additional understanding into the student's epistemological development.

**Presuppositions for Knowledge
and Development**

In Trentham's 2012 dissertation, he wrote of three categories of epistemological priorities and competencies, made up of ten epistemic priorities.[27] This current research examined all ten priorities and determined which students demonstrated evidence of the individual priorities by way of their responses.

"Biblically-founded presuppositions for knowledge and development" is the first category of epistemological priorities and competencies. Student quotes were examined to determine if they fell within the two priorities in this category, and then compared with their position rating along the Perry Scheme.

God and revelation. Trentham titled priority 1 relating to biblical presuppositions as "God and Revelation." He described this priority as "a recognition of the God of the Bible as metaphysically ultimate, and of revelation as the source and most

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[26]Jonathan Derek Stuckert, "Assessing Epistemological Development among Evangelical Seminarians" (Ed.D thesis, The Southern Baptist Theological Seminary, 2016).

[27]Trentham, "Epistemological Development," 169-80.

basic component for knowledge and development."[28] In this new study, 5 students who

attended confessional institutions and 6 students who attended non-confessional

institutions elaborated in such a way that would be representative of this priority. This

compares to Trentham's 9 students, 2 of which were liberal arts students and 2 secular

students who exhibited thoughts falling within this area.[29] Cannon, in his 2015 study of

students who attended confessional institutions, wrote how it appeared most of his

students "settled the basic issue that all truth is God's truth," and bypassed foundational

beliefs while focusing more on specific theological positions.[30] Seven of Cannon's

students demonstrated this priority. [31]

        In my research, Zayle, who scored a 344 Perry rating, demonstrated this priority.

He stated the importance of Scripture as a Christian's "ultimate authority," and shared

about being zealous for God when he said,

> I dive into scripture. The Word is my guide. It is a plumb line that everything is
> judged off of. It says the Jews in Berea scoured the scripture when Paul came and
> gave them a message. I think as Christians we have to do the same thing. We've
> got to be zealous for the Word and then somebody challenges us we have to step up
> and see what the Word says. That's our authority! We are not the ultimate
> authority, the Bible is. The God behind the Bible, who gives the Bible authority is.
> We have to submit to His Word and be careful not push beliefs that are contrary to
> His Word. It's easy to do and there's time we all do it. We have to constantly be
> studying and growing in our understanding of God and who he is.

        Alice, who attended a non-confessional institution and scored a 233 (transition

2/3), shared of God's knowledge and how she only knows a fraction of His knowledge:

> Just a lot of online research, reading, getting into the Word and kind of try to figure
> out what the Word has to say about it. But, also, knowing that I, I'm not a
> theologian by any means. So just not being lukewarm, in a sense, but keeping my

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[28]Trentham, "Epistemological Development," 170.

[29]Ibid.

[30]Cannon, "Epistemological Development," 86.

[31]Ibid., 85.

mind open. Being not lukewarm in the sense that I believe that God has all of the knowledge in the world and we know just a fraction of it.

During the review phase, Trentham noted Samantha's statement as a strong example of the "God and revelation priority." He noted how "strong examples tend to appeal to trusting God's word through doubt, hardship, non-clarity, etc."[32] Samantha said,

> I've just been guiding into that, you know, the last couple of months. I can't say that my answer is perfect but I can say that I'm just trying to trust the Word of God and what it says. And even if I don't feel like I know it a hundred percent, you know just like trusting, you know, that Gods gonna guide me through that, so, yeah. I would say that's kinda how I handled that.

Ann, a confessional institution student who scored a 334 (transition 3/4), confessed her doubt in times of hardship when describing how God "showed up," and how He "came back with His truth":

> I think all of it turned out to be a positive. I think God really, He's not afraid of being questioned you know. He has used every moment, every dark moment of my college career to show that He is light and that He is truth. I see evidence of that in poetry because I became a poet in my days of depression. So, a lot of times I wrote out my frustrations. The end result of every poem I have ever written has always had a glimmer of light at the end. At some point, God has showed up and has, in the darkness He always shows through. So, I think every time I questioned, every time I doubted, every time I was frustrated or depressed or despairing, He came back with His truth. He came back with what was real. All, was bringing me closer to Him.

Throughout the review of student statements on the first Trentham priority of "God and revelation," a theme began to surface surrounding student's value and use of Scripture. Trentham observed this in his evaluation and scoring and wrote,

> An interesting emergent theme to note is the implicit vs. explicit nature of how students articulate their commitment to scripture as the ultimate source of truth and knowledge. It seems that most (likely all) students understand and prioritize that they should appeal to Scripture and that they value scripture, but in many cases, they do not articulate scripture as authentically testifying to the Truth (capital T) and thus it is unclear in their statements whether they "trust and believe" scripture wholly, or merely "utilize" scripture when appropriate or necessary. This could be an important point of speculation regarding redemptive development in evangelical undergraduates: perhaps many evangelical students develop a pragmatic or utilitarian faith that emphasizes revelation through scripture as a "tool" rather than more fundamentally a "worldview." This would correspond to the developmental trajectory identified in the Perry Scheme—because epistemological maturity progresses from

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[32]John David Trentham, review of research data, February 2017.

regarding knowledge as received and utilitarian to regarding knowledge as a matter of internal commitment (i.e., "trust") and lifestyle orientation.[33]

This utilitarian approach to Scripture in helping students make decisions, obtaining answers they need, and increasing biblical knowledge was evident in multiple statements by students. Most, if not all, of the students appeared to value Scripture. What was often unnoticed was the student's incorporation of Scripture as revelation.

Faith and rationality. Trentham described his second priority, in the category of Presuppositions for Knowledge and Development, as a "clear articulation of the relationship between faith and rationality."[34] Six of Trentham's students, 2 in each of the categories he studied, expressed thoughts that fell into this category.[35] These results compared to Sanchez's study of students attending secular institutions, resulting in only 3 students having responses in this category.[36] Six students in Cannon's study of students attending confessional institutions had responses falling within this priority.[37]

In my research, 4 students who attended confessional institutions fell into this priority. Three students who attended non-confessional institutions fell into this priority. Tony, a confessional student scoring a 334 (transition 3/4), described his "re-examining" of faith when he commented,

> Well, there are some philosophical subjects out there that are scary at first. When you really get into the depth of, of, at looking back, at looking at your beliefs and re-examining them. Ultimately, once you have re-examined your faith I feel like it's stronger.

Vicky, a position 3 scoring non-confessional student, with a 333 (4), demonstrated an implicit example of the "Faith and Rationality" priority when she

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[33]John David Trentham, review of research data, March 7, 2017.

[34]Trentham, "Epistemological Development," 171.

[35]Ibid.

[36]Sanchez, "Epistemological Development," 78.

[37]Cannon, "Epistemological Development," 87.

shared, "But yeah, so I think being challenged in my faith in college helped me to, it helped solidify what I believe and it helped me be able to understand why I believed it and so that I can be better able to vocalize it with other people."

It became obvious that many of the students pointed toward "owning their faith." This was quoted multiple times, but what was not often noticed, at least explicitly, were students integrating their faith with rationality. In his scoring of Amber's responses, Trentham stated,

> Like Amy, Amber is referencing the categories of faith and rationality—but there is no articulation of how the two interrelate. This may be an emerging theme in this section: students recognize the cooperative nature of faith and rationality, but they do not possess the readiness to articulate it. Again, this would correspond to the Perry Scheme, because it is only when you progress past dualism and multiplicity that you will truly be able to meld presuppositions (beliefs/commitments/worldview) with critical thinking (reflective thinking, rationality, proof, coherence, etc.).[38]

Metacognition, Critical Reflections, and Contextualistic Orientation

Trentham titled the second category of epistemological priorities and competencies as Metacognition, Critical Reflections, and Contextualistic Orientation.[39] He wrote that this category "addressed the primary elements of cognitive maturation as put forth prominently by Perry in his original study and later publications"[40] Trentham identified four priorities as part of this second category. With this new research, responses falling within these priorities were also analyzed in relation to the student's positioning in the Perry Scheme, as scored by the CSID. All four priorities are discussed in the following pages.

Forms of thinking. Trentham's first priority, within his second category, focused primarily on the cognitive maturation of the student and was defined as "a

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[38]Trentham, review of research data, March 7, 2017.

[39]Trentham, "Epistemological Development," 172.

[40]Ibid.

preference for higher-level forms of thinking, according to Bloom's Taxonomy."[41] Comparisons to well-known steps of Bloom's Taxonomy were used in the analysis of the responses. These six steps are Remember, Understand, Apply, Analyze, Evaluate, and Create.[42] The primary focus was on steps illustrating the highest in cognitive development, which are Analyze, Evaluate, and Create.[43]

My research resulted in identifying 3 students who attended confessional institutions having responses within this priority. Two students who attended non-confessional institutions had responses within this category. These results were dramatically different from earlier studies, where Trentham had 14 responses for this priority, including 4 from students who attended liberal arts institutions, and 6 who attended secular institutions.[44] Cannon's research identified 18 confessional institutional students with responses within this priority.[45] Sanchez's study of secular students identified 21 student responses within this priority. [46] All studies focused on the higher-level educational objectives within Blooms Taxonomy, as highlighted earlier.

Timothy, a student with a 334 Perry score by the CSID, described how evaluation and appraisal of ethical dilemmas, brought forth by his professor in Christian Theology class, helped him mature in "world views." This response demonstrates cognitive thinking at the "Analyze" level within Bloom's Taxonomy.[47] He said,

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[41]Trentham, "Epistemological Development," 172.

[42]Patricia Armstrong, "Bloom's Taxonomy," Center for Teaching at Vanderbilt University, 3, accessed February 3, 2017, https://cft.vanderbilt.edu/guides-sub-pages/blooms-taxonomy/.

[43]Ibid., 1-3.

[44]Trentham, "Epistemological Development," 172.

[45]Cannon, "Epistemological Development," 90.

[46]Sanchez, "Epistemological Development," 79.

[47]Armstrong, "Bloom's Taxonomy," 3.

This particular class, it really, actually, rocked a lot of my world views. He explained a lot of different ethical issues. He didn't tell us what's right and what's wrong, but he taught us how to think through the process of, "is this right or is this wrong" in regard to Christian theology. And I think that class matured me greatly in that area. I am able to see not only where it's black and white, but where there are gray areas in the areas of, like ethical issues that I believe this is right or I believe this is wrong, and someone else might see it a different way, and I don't really think either one of us might be right or wrong, it's just that we have different opinions.

Another student, Larry, a confessional student scoring 233 (transition 2/3), also demonstrated cognitive ability under Bloom's "Analyze" level when he discussed the importance of being "open minded."[48] He describes how he enjoys "studying different beliefs" and realizes how he may need to "correct" his view:

I like to study about different beliefs and how people view scripture. I like to study particular verses and break them down into what they really mean in the Greek language. Just trying to see where the other person is coming from. That way I can better understand them, and maybe I'm wrong and I need to correct my view. I think it is very valuable thing to be able to do that and be open minded.

Many students had responses that did not exhibit Forms of thinking. The following statement by Amy is one example, which according to Trentham, shows "some internal reflection" but is not an example of forms of thinking.[49]

But I held fast to my beliefs. I tried to figure out why I believed it and once I figured that out I had to determine whether, or not I was going to continue to believe them and to trust them, or whether or not I was going to change my views and my opinions. I decided to keep them and, as a result of that, I think I've grown stronger in my personal faith and maturity

Susan is likely a lower level response within Blooms Taxonomy, possibly the level "understanding," but not meeting the higher level for forms of thinking.[50] She said,

I think it's the college education that you walk out of and you feel like you grew as a person and, like, in education. . . . I think it should challenge you. I think it shouldn't be easy. I mean, there are some aspects in the Communications studies program where I didn't feel challenged enough. I don't know, there were times where I've gotten kind of, got against it. Kind of, not, not challenged. That's when I think your education should challenge you and should make you grow through, grow through that.

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[48]Armstrong, "Bloom's Taxonomy," 3.

[49]Trentham, review of response data, March 9, 2017.

[50]Trentham, review of research data, March 8, 2017.

Wisdom-oriented modes of thinking. Trentham's second priority within the category of Metacognition, Critical Reflection, and Contextual Orientation was "wisdom-oriented modes of thinking." In the previous like studies, fewer students expressed areas of wisdom-oriented modes of thinking. Sanchez's study of students attending secular institutions had only 7 students with statements demonstrating this priority,[51] compared to Cannon's study of pre-ministry students attending confessional liberal arts colleges or universities which showed 4 students demonstrating this priority.[52] Trentham's overall study did not show "any discernible findings that suggested a consistent correlation with epistemological positioning," although had 4 responses aligning with this priority.[53] My study had 1 response demonstrating this priority, although it was not even clear if Ann actually prioritized wisdom as a mode of thinking. She said,

> She talked to me about it, but at first I didn't want to hear it, but she kind of forced me to get my head out of the sand. One thing that I notice is when I don't have enough information I really look hard for somebody that I think really has a handle on it. Or, has experience, or somebody who can share wisdom in that area. Somebody who has experience in that area. That's usually my first response is when I don't know what to do is to ask somebody else. Now, I look to the Lord. I pray for wisdom for a solution. I think those are probably the major things that I do. I ask people that I think are wise and then I ask the Lord for revelation.

In his review of the responses on "wisdom-oriented modes of thinking," Stuckert articulated his thoughts on what he believed to be a clear trend toward the student's perception of how wisdom is attained:

> It seems from these selected excerpts that most students view wisdom as something to be "received" usually from either the Spirit especially through prayer or from a wise other. This is not surprising since the Bible does speak of wisdom in terms similar to these, see James 1:5, Proverbs 2. However, what I do not see, and what is an indication of this particular priority, is the pursuit of wisdom as the skillful application of knowledge to life in a world created by God and so ordered by him. It's almost as if at this point they expect wisdom to be given instead of earned through trials and the difficult application of God's word to complex problems. The

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[51]Sanchez, "Epistemological Development," 81.

[52]Cannon, "Epistemological Development," 93.

[53]Trentham, "Epistemological Development," 174.

seminarians with more experience in life had come to realize that wisdom was a struggle. I think most of these think of it as a gift.

Criteria for assessing beliefs and values. Criteria for assessing beliefs and values was Trentham's third priority within the category of Metacognition, Critical Reflection, and Contextual Orientation. This priority only gleaned a small number of illustrative responses from previous studies. Trentham had 4 responses, Long with 6 responses, Sanchez with 4 responses, and Cannon with 2 responses.[54] Their responses mirrored closely with my research, resulting in 2 confessional students and 1 non-confessional student.

Monica, a non-confessional student with a CSID score of 334 (transition 3/4), is nearing a "reflective criteria" with her response regarding believing:

I try to figure out why the people who believe differently from me, I try to figure out why they believe that. I recall and figure out why I believe differently. Why do I believe something else? Then just kind of figure out for myself through prayer and reflection, I just kind of figure out like, ok, maybe they're right and I'll change my mind. Or I'll figure out okay, I still think that what I believe is correct so then I just don't change it. So, really, I just don't say oh well I'm not going to worry about it. Sometimes I'll do that because I just know that something is right, but usually, I'll at least think about it a little bit. Try to figure out if I should change my mind or not.

Social-environmental influences. Trentham's final priority within the category of Metacognition, Critical Reflection, and Contextual Orientation was social-environmental influences. He defined this priority as "a recognition of social-environmental influences on one's learning and maturation."[55] Three of Trentham's students had responses that exhibited this priority.[56] In this category, Long had 11 students in his study, Sanchez had 13 students, Cannon with 5, and Stuckert's study of seminarians recorded 21.[57]

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[54]Cannon, "Epistemological Development," 95; Sanchez, "Epistemological Development," 82; Long, "Evaluating the Epistemological Development," 99; Trentham, "Epistemological Development," 175.

[55]Trentham, "Epistemological Development," 175

[56]Ibid.

[57]Long, "Evaluating the Epistemological Development," 100; Cannon, "Epistemological Development," 97; Sanchez, "Epistemological Development," 83; Stuckert, "Assessing Epistemological Development," 92.

This study recorded 3 students with responses exhibiting this priority. Two were females and 1 male. Of the 3 students, 2 had attended confessional institutions and 1 a non-confessional institution. Ann's description of her perspective on student growth, while in college, was the closest example in my study of a response exhibiting this priority. Ann's rating score was a 334 (transition 3/4) and attended a confessional institution:

> I think that when students go to college they should really look to grow intellectually, spiritually, mentally, emotionally. Those areas are places where college provides a very safe place because at least mine did. It provided a very safe place for growth because I had people who cared about (me) because I had a lot of great professors who wanted me to succeed. And so whenever you're going those places you need to find people who are going to encourage you to grow, and not you stay static or encourage you in the wrong direction. Those are the kinds of things that people should look for to be better while you are in college

Personal Responsibility for Knowledge within Community

Trentham's third and final category of epistemological priorities and competencies was "personal responsibility for knowledge-within community."[58] This category includes four priorities or sub-categories. Trentham defined this final category as "designed to provide a means of discerning the nature of participants' expressions regarding self-motivation and personal commitment for epistemological growth, as well as their perspectives regarding development within community."[59]

Interdependence and reciprocity. The first-priority within Trentham's third category is "interdependence and reciprocity." He had 5 students exhibiting responses within the priority he defined as "a pursuit of personal development that results from mutual independence and reciprocity in one's relationships with authority figures and

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[58]Trentham, "Epistemological Development," 176-77.

[59]Ibid., 177.

peers."[60] Long's study of Bible College students had 8 students within this priority,[61] Seven participants in Sanchez's study, 9 participants in Stuckert's study, and 5 in Cannon's study demonstrated this priority.[62]

During the review phase in the current study, of the 4 students identified as having responses within this priority, there was a strong agreement between Trentham, Stuckert, and myself on Monica's response surrounding "reciprocating" in relationships. Stuckert wrote in his analysis how he felt Monica's response was a "textbook case" of Interdependence and reciprocity.[63] Monica stated,

> I value relationships a lot more now than I did before because those are things that are going to get me through life. Knowledge is good, but I would have no one to share the knowledge without relationships or friendships, or any kind of relationships. I think they are a vital part of life so I try harder to maintain relationships especially with people who push me to keep growing in my faith. Yeah, I've also tried to be better at reciprocating a relationship, rather than just gaining from a relationship I try to also give to the relationship too. You know how they say a two-way street, so I try to really live that out as much as I can.

In Todd's response, he shares how his mentor's advice is "invaluable." During the analysis of Todd's response, Trentham wrote how Todd "clearly demonstrates an impulse and value on interdependence and reciprocity."[64] Todd said,

> They all have been great mentors to me. Dr. _____ especially. He has committed himself, at his own suggestion, and we have committed ourselves to meet once a week and we go through a book called imitation of Christ by Thomas Aquinas. We just read a passage of that book, talk about it, philosophize about it, we'll talk about what is going on in our lives. We will pray for each other. He supports me and I support him in that way and I know that I can go to him with any and every question, not just about academic work, but life in general. He will be there to walk through situations or give me his advice and that's really invaluable as I go through my college career. It's really something that I cherish and something that has impacted me and something that will impact my future.

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[60]Trentham, "Epistemological Development," 17.

[61]Long, "Evaluating the Epistemological Development," 100.

[62]Sanchez, "Epistemological Development," 84; Stuckert, "Assessing Epistemological Development," 93; Cannon, "Epistemological Development," 97.

[63]Jonathan Stuckert, review of transcript data, February 2017.

[64]John David Trentham, review of transcript data, February 2017.

Continuing with the analysis of Todd's response, Trentham highlights,

> In the context of the student/professor relationship, the "early glimpse" is as much as we'll see given most evangelical students' deference to their professors, but it is very significant (in my opinion) because it shows a clear preference for pursuing growth in a relational context.

Todd was a confessional institution student with a rating score of 333(4).

Personal responsibility. The second priority within Trentham's third category is that of "personal responsibility." In his original research, Trentham documented 14 participant responses exhibiting this priority. [65] This compares to 5 in the current study, 7 in Long's study, 8 in Sanchez's study, 13 in Cannon's study, and 13 in Stuckert's study.[66]

Samantha, a confessional institution student scoring a 334 (transition 3/4), spoke of the changes in her perspective on learning while progressing through college:

> So, I, I remember, it was my sophomore year. And I kinda realized that my whole life I studied to earn a grade. I would study and I'd take the test and then I'd forget it all. And it was horrible but it's just how it was. And then it was like my very beginning of my sophomore year of college that I realized, this is college and I want to really remember the things I'm learning. And I don't want to just get a grade. I want it to be meaningful, I want, you know, I want to be able to recall the information. And so, I started studying differently and I started learning, I guess, differently. So, I definitely would say I've learned how to learn better. And as far as just like, wanting to actually know what I'm being taught and you know, retain it rather than just get an "A" and, you know. move on.

Showing a glimpse of this priority, Zayle shared how he now wants to grow in "faith, knowledge, and understanding." Zayle, a confessional student scoring a 344 (transition 3/4), appears to be developing his understanding of responsibility:

> Again, there's a big difference. Taking care of responsibilities is a big one. As a freshman, I really didn't care about grades, classwork, and you know I just kind of wanted to get through a class. Now, it's more I want to learn and I want to grow in my faith, as well as in knowledge and understanding. You know there's just a better understanding of responsibilities and what's important is really the big thing.

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[65] Trentham, "Epistemological Development," 178.

[66] Long, "Evaluating the Epistemological Development," 101; Sanchez, "Epistemological Development," 84; Stuckert, "Assessing Epistemological Development," 95.

Active and engaged learning. The third priority in Trentham's last category is defined as "a preference for active involvement in the teaching and learning process."[67] Trentham described viewing this priority as "looking for a sense of personal responsibility through the prism of (having a preference for) active learning."[68]

In his original study, Trentham identified 18 students expressing responses in this priority.[69] Fifteen students in Sanchez's study, 22 students in Long's study, 8 students in Cannon's study, and 6 students in Stuckert's study expressed responses falling within this priority.[70]

Twelve students in this current study were identified. Four were confessional institution students, and 8 were non-confessional institution students. Blake, a non-confessional institution student scoring a 334 (transition 3/4), discusses his preference for an "interactive" college course:

> Great college course? I think one that gets students to do a lot of different things. Work in groups, read good scholarly work or some kind of research. Something pertaining to what you're doing. I think one that is interactive, one that gets you moving doing some hands-on things in your field. If you are not in a hands-on kind of field something that still gets you moving and doing a lot that's, that pertains to what you would do at least. Something that has you doing some kind of research or applying theories and realizing and recognizing those. Also, one that just allows you to, to, yeah even not necessarily challenge, but one that allows you to ask questions well and be able to get answers for what you're seeking, whether it be through the professor, or from your peers, or whatever that might look like. I think those are all essential to a good college course, a good one anyway.

Timothy, a confessional institution student scoring a 334 (transition 3/4) describes his feelings how a good college course involves "experience and actual research." He feels that is the way students "truly learn." He stated,

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[67]Trentham, "Epistemological Development in Pre-Ministry Undergraduates," 178-79.

[68]John David Trentham, review of research data, March 2017.

[69]Trentham, "Epistemological Development," 179.

[70]Sanchez, "Epistemological Development," 85; Cannon, "Epistemological Development," 102; Stuckert, "Assessing Epistemological Development," 96; Long, "Evaluating the Epistemological Development," 102.

I am really not a fan of a power point lecture. But I think the whole course should involve more than just tests. Although I do think tests are important I think projects such as papers or papers about things you are supposed to go out and do. Papers would just be merely proof that you actually went out and did something, but I think experiences are very important to a good course. Honestly, I would say that I've learned more from papers I've written than I have from reading any book in a particular course or studying for any test that I have. I think the experiences and actual research that are done by a student is how you truly learn.

Mellissa, a non-confessional institution student scoring a 333(4)- (position 3), articulated her desire for the "practical nature" of learning. She expressed enjoying applying what she has learned while she teaches in an elementary school classroom:

I would say, I would definitely say, like academic in regards to just engaging that intellectual thought, so I would say my college education was ideal. I was a double major in elementary ed and art history. And why I say it was ideal is that it was a balance of service and actual this is preparing me for a job. With elementary ed. I can be an elementary ed. teacher, and just really having that practical experience. Because that also allowed me to say wow, I don't want to do this when I graduate. This is not what I want to go into. But it gave me the freedom to have that experience. But I was also like very intellectually stimulated in my art history courses. I was having group discussions, I was in lectures, and I was also like presenting and challenged to really think deeply about topics. And so I really liked that academia aspect and what that includes but I also love, like, kind of a practical nature too, instead of like all theory, like this is what you can do. I enjoyed learning like pedagogy and theory and then like actually applying it within an elementary classroom.

Convictional commitment. Many of the students in this study expressed a sincere commitment to God, Jesus Christ, their education, and their pursuit of vocational Christian ministry. They also responded in a manner that demonstrated strong convictions of belief in God, belief in the Bible, belief in the power of Holy Spirit, belief in moral standards, and belief in their savior Jesus Christ.

With this apparent strong focus on conviction and focus on commitment, it was surprising to observe only 1 student from the current study fall within this last priority. Responses must fit within the priority as originally defined by Trentham in is original research. Trentham defines this last priority as "a convictional commitment to one's own worldview-maintained with critical awareness of personal contexts, ways of thinking, and challenges brought to bear by alternative worldviews-through testing and discernment."

In his original research, Trentham identified 5 student responses falling within his definition of "convictional commitment."[71] Long identified 7 students with responses within this priority, Cannon identified 7 responses, but Sanchez's only identified 2 student responses falling within this priority.[72]

Stuckert's research was very different and found 15 seminarians with responses falling within this last priority. This difference could be a result of interviewing graduate students who were older than the traditional undergraduate student. Stuckert explains,

> The overall tenor of the interviews was indicative of a group of people for whom commitment was second nature or assumed, and what the seminary experience offered was an opportunity to refine, test, and strengthen their commitments to the Lord, to ministry and the local church, and to others.[73]

Todd, a confessional institution student with a 333 (4) rating score, responded in a way demonstrating convictional commitment and critical awareness in his response:

> I would say that my convictions, from the most part, had stood. I came at the school with strong Christian values and convictions, and over the last years I have held those convictions, but they've stood the test of doubt, they've stood the test of me having to own those as my own, now that I'm out from underneath my parent's roof. And because I've gone through those doubts and have gone through having to take ownership of those convictions, they're standing stronger than they were when I came in as a freshman.

Summary of Student Ratings

Table 18 summarizes the number of students who demonstrated responses within each of Trentham's ten epistemological priorities and competencies.

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[71]Trentham, "Epistemological Development," 98.

[72]Sanchez, "Epistemological Development," 86; Long, "Evaluating the Epistemological Development," 103; Cannon, "Epistemological Development," 106.

[73]Stuckert, "Assessing Epistemological Development," 99.

Table 18. Trentham's ten epistemological priorities and competencies

Trentham's epistemological priorities and competencies	Confessional Institution occurrences	Non-Confessional Institution occurrences	Total occurrences
Knowledge and Development			
1. God and revelation	5/16	6/15	11/31
2. Faith and rationality	4/16	3/15	7/31
Metacognition, Critical Reflection, and Contextual Orientation			
3. Forms of thinking	3/16	2/15	5/31
4. Wisdom-oriented modes of thinking	1/16	0/15	1/31
5. Criteria for assessing beliefs and values	1/16	3/15	4/31
6. Social-environmental influences	2/16	1/15	3/31
Personal Responsibility for Knowledge-Within Community			
7. Interdependence and reciprocity	3/16	1/15	4/31
8. Personal responsibility	4/16	1/15	5/31
9. Active and engaged learning	4/16	8/15	12/31
10. Convictional commitment	1/16	0	1/31

Recurring Themes

In Trentham's original research dissertation, he included a section titled "Recurring Themes."[74] This section highlighted themes from Trentham's study that he commonly observed among many of the interviews. He expressed how these themes "bear relevance to participant's developmental (generally) and epistemologically (specifically) perspectives."[75] Trentham expounded on seven primary recurring themes: The Primacy of Relationships, Mentors, Relationship with Teachers, Purpose of College, Impact of College, Perspective Regarding Seminary, The Bubble.[76]

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[74]Trentham, "Epistemological Development," 180.

[75]Ibid.

[76]Ibid., 180-95.

After Trentham's research, Long, Sanchez, Cannon, and Stuckert also identified recurring themes with their own research:

1. Long: The primacy of relationships (in general), The influence of mentors, The importance of relationships with teachers, The purpose of college, The impact of college, The perspective regarding seminary, The bubble.[77]

2. Sanchez: The primacy of relationships (in general), The influence of mentors, The importance of relationships with teachers, The purpose of college, Impact of college, Perspective regarding seminary, The bubble,

3. Cannon: Primacy of relationships, Relationship with professors, Relationship within dormitories, Exclusivity of Christian campus, Purpose of seminary, Need for ministry practicality, Importance of mentors, Willingness to participate in research.[78]

4. Stuckert: Faculty, Local Church, Marriage, Calling.[79]

During analysis of my research, I scrutinized the transcripts for recurring themes, in addition to my earlier analysis, and location of instances, where students expressed statements adhering to Trentham's Epistemological Priorities and Competencies. The next section addresses recurring themes I observed during my analysis. These themes are discussed in detail and are the primacy of relationships, appreciation of the college experience, the impact of CRU, challenge required and desired, and Holy Spirit's influence.

The primacy of relationships. In previous studies, the primacy of relationships was a prominent recurring theme, so it was no surprise to find this common theme in my new research. Tiffany described the importance of relationships when she answered what most stood out to her during college: "I think definitely relationships, whether it's been student to students, or students to faculty, (or) student to campus minister."

In my research, I began interviews with a question from Trentham's Interview Protocol, which said, "Thinking back through your college experience to this point, what

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[77]Long, "Evaluating the Epistemological Development," 104-15.

[78]Cannon, "Epistemological Development," 110-18.

[79]Stuckert, "Assessing Epistemological Development," 99-108.

would you say stands out to you?" Overall, 22 out of 31 (72 percent) answered "relationships," or some other word representing relationships, such as friends, people, community, or professors. Eleven of 16 (69 percent) were students who attended confessional institutions, and 11 out of 15 students (73 percent) attended non-confessional institutions. For confessional liberal arts students, my research results aligned closely to Trentham's results for confessional liberal arts institutions. My results for non-confessional liberal arts colleges, aligned closely with Trentham's and Sanchez's results for secular institutions. However, my results did not align with Cannon's results for students who attended confessional liberal arts colleges or universities.

Samantha shared what stood out to her most at college when she stated,

I would say what most stands out to me is the relationships that I've made at _____. And the people that I've met that have just served as a really great encouragement and a really great support system through my time in college, and I guess just friendships and the community. So, really, just the people that I've met and lifelong relationships that I know I'm gonna have. Yeah. It's, it's been very special and something that I prayed for a lot in high school. It was really important and special to find that in college.

Examining more closely, 29 of 31 students (94 percent) expressed, in various ways, how they had positive relationships with one or more faculty members. Monica shared her experience with a favorite professor who "cared" for her as a student:

Well, there's two professors, in particular, that I got to know really well. I took Hebrew for four semesters, and I had the same professor for all four semesters. So, I met most of the same people in the class those four semesters. It was a pretty small class, maybe fifteen people. So, as a class, including our professor, we got pretty close. Our professor was like one of the most joyful people I think I know so he would just come in and ask us about our day, how our semester was going, and just making sure to catch up with how our lives are in general, even before we actually started working, so I always appreciated that about him. He actually, genuinely, cared about us.

Long discussed a recurring theme of the primacy of relationships, with 67 percent of his study referencing the word relationships or words relating to this.[80] Cannon had 37 of his respondents expressing the importance of relationships, Sanchez documented

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[80]Long, "Evaluating the Epistemological Development," 105.

77 percent of his respondents expressing primacy of relationships, and Stuckert wrote how 50 percent of his graduate student respondents discussed the importance of relationships with professors.[81]

Table 19. Students identifying primacy of relationships in some form

Study	Bible College	Confessional Liberal Arts	Non-Confessional Liberal Arts	Secular	Seminarian (Graduate Students)
Trentham	80%	70%	-	70%	-
Long	67%	-	-	-	-
Cannon	-	37%	-	-	-
Sanchez	-	-	-	77%	-
Stuckert	-	-	-	-	50%
Leatherman	-	69%	73%	-	-

Appreciation of the college experience. During the interview process, I was surprised to hear of the number of students expressing appreciation for their college or university experience. Students regularly shared positive comments about their education. For example, Ann's response to the question about an ideal college education with, "I would say that, actually, I feel like my college education was really ideal."

Twenty-five of the 31 respondents in my research, or 81 percent, shared positive comments identifying their appreciation of their college education. In addition, 30 percent of the students interviewed shared their value of a liberal arts education. Tony expressed,

> An ideal college education, in my opinion, is liberal arts based. A college graduate needs to be at least competent in every field. Not necessarily excel in every field, but at least a competency and a familiarity in each field. And then, each college student should have a specific field that they master, that they pursue, to a fairly advanced competency. And then I believe that underlying all of that the best optimum college experience has a Christian foundation, and that's my opinion.

Several students expressed the importance of a broad liberal education. Ruth, a student who attended a confessional liberal arts college, discussed the value of the connection between the various disciplines in a liberal arts education:

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[81]Cannon, "Epistemological Development," 111; Sanchez, "Epistemological Development," 89; Stuckert, "Assessing Epistemological Development," 101.

I think liberal arts is really important because I think that inter-disciplinary connection really does, I feel it's very PC to say, but it really does enrich your education. I do understand a lot of things in a more global context, in a more connected context, due to the various classes I took.

Bruce, who attended a non-confessional liberal arts institution, shared his feeling of how a liberal arts education was an "ideal education" for him. Although, he said if he could go back and do it over again, he would attend a Christian liberal arts institution:

Yeah, so, I think for me an ideal college education, I'd say certainly a liberal education. I think there's time, so, I go to a liberal arts school. . . . I've appreciated the fact that I've (been) able to take classes and maybe something that's not my forte. But, I've really been able to gain a lot from it. Whether that was a relationship, a friendship with my professor, or just being able to think in a different way or be challenged in a different way. At the same time, though, I think with a little bit of bias, I think it would be, (if) I could go back and do my ideal college education, it would be a Christian liberal arts school, for sure.

A subset of the recurring theme of appreciation of the college experience is students having a difficult time answering the question, "what do you least value about your education?" Asked this question, many students would hesitate, pause, or even have no answer at all. Next, is an exchange between the interviewer and Jennifer, the interviewee, demonstrating this point. The long pause should be noted during the exchange.

What do you least value about your education?

Interviewee: (Long pause) That's a good question.

Interviewer: It's a tough question.

Interviewee: Yeah, I mean, I don't know.

Interviewer: Ok. Want to pass on that one?

Interviewee: Yeah, sorry.

Table 20 offers additional examples of responses by students who could not, or who had difficulty answering what they did not value about their education.

Table 20. Responses concerning value of education

Emily, confessional liberal arts institution: "That's a tough question."
Cynthia, confessional liberal arts institution: "It was overall a great experience so I'm really kinda, ah, let's see. Well, the food in the cafeteria was kind of bad. And, yeah, I think, I don't know. I really loved it and now that I'm out of school I'm, I can't look, I only look back and see the good things. I'm sure if you asked me this before I could complain a lot so. I really enjoyed my college career"
Fred, non-confessional liberal arts institution: "Wow, what do I least value about it? I really loved it. I, I mean, I, do I have to have an answer? I don't know. I really loved pretty much everything"
Timothy, confessional liberal arts institution: "Least value, wow, that is a loaded question. Uhm, man. I think I am going to go ahead and pass on that one. I can't really think of anything in particular right now."
Christy, non-confessional liberal arts institution: "I have no idea. What do I least value? I don't really know. I don't know what I least valued"
Monica, non-confessional liberal arts institution: I mean; I don't really think there is anything I don't necessarily value. It's kind of lame, but I pretty much valued everything about it like, yeah, I don't know. I honestly don't know

The impact of CRU. CRU is a parachurch organization, previously known as Campus Crusade for Christ. CRU ministers to colleges throughout the United States and abroad. The impact of CRU was the third recurring theme in my research.

This research surrounded Christian pre-ministry students, so I was not surprised to hear CRU mentioned by many pre-ministry students who participated in my research. Through networking, I was put in contact with several pre-ministry students involved in CRU. Most of the non-confessional participants were in some way involved with CRU. This was the case, even though I attempted to locate pre-ministry students from other parachurch organizations. Even several of the students at confessional institutions were involved with CRU. What I did not expect, and what was so impressive to me, was the multiple stories of how CRU was used by God to make a significant difference in the students' lives. As an example, Mark shared how CRU impacted him regarding his faith:

> Definitely, my experiences with Cru helped me to not only have a good understanding of my faith but as well as help instill in me a desire to know God more. So, now, post-college, it's my first desire to keep growing in that relationship with Him and everything else kind of transcends from that.

Eleven of the 15 (73 percent) non-confessional institution students in my research were involved with CRU's campus ministry, or one of its divisions, such as Athletes in Action. These areas of involvement were expected, as CRU has a presence at many secular colleges and non-confessional institutions. One of these students, Michelle, even helped charter CRU on her campus, as her response below states:

> The main thing about the whole honors society is where I met the most people and met a lot of my close friends. . . . And, there was a lot of overlap in that and in CRU. We actually started CRU on my campus. A lot of us that started CRU were in the honors program so there a lot of people in CRU and the honors program.

Another surprise was seeing how several confessional institution students were also involved with CRU, even though CRU did not have ministries on their campus. For example, 2 pre-ministry students, who attended confessional institutions, committed to full-time vocational ministry with CRU. This was the case, even though they did not participate with CRU on their campus. Another confessional institution student participated with CRU during summer break mission trips and ministry but did not participate with CRU on campus. Another confessional institution student lived with a CRU staff member. A further confessional institution student discussed leading Bible studies with CRU while attending a community college, prior to transferring to the confessional liberal arts institution.

Ruth, who did not have CRU on campus, described the decision to serve with South America CRU, in vocational ministry:

> I'm not really sure because I only really realized I was going, I decided to go on staff with CRU like mid-March, so it hasn't really been very long. It was actually a really quick process. I didn't even know I was graduating early until October, and then I started trying to figure out what I was going to do.

Victoria, who also attended a confessional institution with no CRU presence, shared how she decided to work for CRU, and her excitement about the opportunity:

> Well, I was, I took a career class and one of our assignments was, you know, it was senior year, last semester to like apply to a couple jobs, just for the sake of applying. If something happens that's awesome, if not it's ____. And so, I kept looking for positions that fit my skills and nothing really excited me too much until I really heard about this internship with Cru. And I ended up doing marketing and ministry for them and so that just, you know, immediately I was super excited about that opportunity and felt really called to apply for that.

Many students described how CRU staff members, disciplers, mentors, or Bible study leaders helped them with their knowledge and faith development. Fred discussed the role of the CRU member who discipled him in the faith. Fred eventually decided to serve in Christian ministry with CRU.

When I started going to Cru, I started meeting with a staff member ___, and so we started meeting every week. We, he started discipling me after, so after I became a Christian. So, we started meeting. At first it was just meeting with the Bible, just talking about the Bible. And then once I became a Christian, it became him building me up in my faith. And so, and so, we became really great friends

Amber discussed her growth during college and the impact CRU made on her life. She made the decision to serve with CRU after graduation.

Wow. It is, I've grown so much over the past, over the past four years. I would say that's been the biggest area of growth in my life. I feel like from freshman year I got plugged into CRU. And, that is where I heard the gospel specifically for the first time and where I first entered into a relationship with Jesus. And so, it changed everything. My heart changed, my intimacy with the Lord has only grown. You know, of course, there's ups and downs in there, but it's been consistently growing, so as I learn about, I feel like it's been a steady incline to learning about God and characteristics and Holy Spirit and Jesus. And so, as I've been growing in that my faith has only increased.

Alice discussed her decision to change her direction from pursuit of a secular career to international vocational ministry with CRU.

I really thought I would graduate and get a job in the secular world if you will. And I studied abroad in Poland for a semester and I really, personally experienced kind of a lot of college students not knowing Christ personally and not realizing the value in that and the importance of that. And then I watched one of my, I played soccer for two years, so I watched one of my teammates get saved and I thought "Wow, that would be really cool to be that person to someone abroad." And so, then I was at a CRU conference this past Christmas and saw a presentation about going abroad for a year to do ministry in Croatia. Of course, at that point, I didn't know Croatia specifically but I thought "Ok God, you are definitely calling me to something international to do ministry."

Overall, there were 169 mentions of CRU in this research, with 19 out of 31 interviewees mentioning CRU in some way.

Challenge required and desired. The fourth recurring theme from my research was the challenges students expressed during college, as well as their desire, and expectation, to be challenged through the college experience. Students expressed the

challenge they experienced or challenge they desired, in different manners. Several students referred to challenging courses and challenging professors, while others were discontent as they felt some courses were not challenging enough. Some students discussed being challenged to grow in their faith or to pursue ministry. Other students spoke of the challenges they experienced during their college experience.

Twenty-five out of 31 students interviewed (81 percent), mentioned "challenge" in some form, or another. Ann shared of the importance of challenge to her when she stated, "Honestly what I remember most about college is the times whenever I was challenged the most, and I wasn't necessarily challenged with all of the parties and all of the basketball games, you know."

Victoria discussed her perspective that going through a challenge leads to growth and development: "I just think, you know, if you don't have a challenge, if you don't ever go through struggles, and those are actually times when people really grow and develop and learn and so, while not always fun, they can be most beneficial things, really."

Cynthia shared how her anatomy class "really challenged" her, and how it was "good" because she needed the challenge:

> Great college course. Well, I, it, it varies so, I would love to be challenged where I have to study every day. Like anatomy really challenged me in that way. And it, it was good because I needed it and I, you know, I, it pushed me enough to get the grade and I've seen the results of it.

Emily appeared to agree with Cynthia, and other students, regarding the importance of a challenging professor: "Professors that have high standards are important because it shouldn't be too easy. Even though, I think we probably want it to be, but better to be challenged."

It was intriguing to hear other students who expressed disappointment that their classes, or their major, was not challenging enough. Susan, who attended an institution known for challenging classes, appeared discontent that the major she chose was too

easy: "Yes, but, I guess, if I could have been challenged I would probably value that (major) a lot more."

The positive news was how many students felt their professors were providing a challenge to them, such as Amy who hinted at her appreciation for a professor who was challenging her in a way that caused her to "do even better":

> Well, the professor in his challenging, challenged me, actually, to do even better than what I was doing in all my other classes, to prove to him that I could, that just because I believed differently from him didn't mean that I wasn't a really good student

Holy Spirit influence. The final recurring theme in this research is the influence of the Holy Spirit on student's lives. These influences took various forms with students speaking of the Spirit's leading, conviction, comfort, guidance, revealing, encouragement, filling, and the fruit of the Spirit. Overall, 14 out of 31 students (45 percent) commented on the Holy Spirit. Nine of 16 (56 percent) confessional college students mentioned the Holy Spirit. Five of 15 (33 percent) non-confessional institution students mentioned the Holy Spirit. Many students simply referred to the "Spirit," instead of stating "Holy Spirit." None of the students interviewed used the term "Holy Ghost," possibly illustrating a cultural shift from use of the King James Version of the Bible to newer translations.

Monica discussed the convicting role of the Holy Spirit in her life: "I'd say I've gotten a lot better of knowing when the Holy Spirit is convicting me of sin, or just anything that maybe I shouldn't be doing."

Bruce shared his pursuit of a Spirit-filled life, and how he is embracing God's purpose for his life:

> I'm fully just embracing Gods story for my life and Gods purpose for my life. What once was fearful, or what I thought was fearful or scary, you know, as leading Bible studies or encouraging or challenging young men to live lives filled with the Holy Spirit. And now, that's what kind of gets me up in the morning, gets me really excited and I always feel so much more at peace. And just so much more joy when I'm pursuing those things. I'm pursuing a Spirit-filled life with Christ.

When asked, "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," Cydney discussed the guidance she receives from the Holy Spirit: "I think praying and seeing, as much as possible, what scripture says. Like, if it doesn't say much then just compare it to the other core beliefs and see how it ends up with that. And just pray and listen to the Holy Spirit's guidance."

Ben discussed his perspective on the importance of the fruit of the Spirit (Gal 5:22-23) when answering the question, "How do you show proof in the area of your personal knowledge, your beliefs, your faith?":

> Oh wow, I guess the, I feel like this is a very overly obvious answer, but I feel like the fruits of the Spirit are the number one thing that you would be able to tell, if a person is truly, you know, who they say they are as a Christian. I think if you're willing to analyze yourself, you analyze yourself against these things and are you truly striving to be more of each one of them, even when you know you're going to fall short.

Blake opened up about the difficulty he has, at times, understanding "the harder things" he faces in life," and how he asks the Holy Spirit to fill him:

> I just kind of can't even come to understanding things sometimes and understanding some of the harder things that I face. But, just making sure, like, I am praying and asking of God to guide me and to lead me, for His Holy Spirit to fill me and to be able to go forward and hopefully that decision that's made, well knowing that that decision that's made will ultimately be covered in his grace as well.

Evaluation of Research Design

This section evaluates the strengths and weaknesses of the research design. The design for this study was selected to closely mirror previous research surrounding the epistemological development of pre-ministry college students attending various educational institutions of higher education. This study used a qualitative design, following the Trentham Interview Protocol, which was an adaptation of the Perry Interview Protocol. Thirty-one students were interviewed, live, over a teleconference application, allowing for confidential conversations that were easily recordable for transcription.

Strengths

The first strength of the research design was the use of a conference call service to conduct the interviews. By using a conference call service, students were

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provided a dedicated conference call telephone number to bridge into a conference call. This benefited the process in a couple of specific ways. First, it aided the process of scheduling students for interviews because it eliminated any awkwardness with the student being asked to provide an unknown researcher with their personal telephone number. Second, the conference call service also provided an easy to use, high quality, recording capability. Recordings were then easily downloaded onto a file for careful retention.

The second strength of the research design was the one-to-one communication between the researcher and the student being interviewed. Much earlier than expected, a friendly bond was created between the researcher and the student. This was likely due to a teleconference service being used, providing the student with a level of anonymity, allowing the students to feel more comfortable while sharing personal insights into their epistemological and ethical journeys through college. Students appeared relaxed, soon after the introduction and explanation of the call logistics, prior to the recording being turned on.

By the end of each interview, I felt most students were comfortable with the interview protocol. Clearly, some of the students appeared as if they would enjoy continuing longer with the interview. Once the recorder was turned off, many of the students expressed how they enjoyed the interview, with several students expressing how they were challenged with thought-provoking questions requiring them to think through their own personal growth and life experiences.

The model of identifying and locating student participants also proved to be a strength. Through networking, I successfully obtained the necessary number of student participants, without the wasted time of sending hundreds of non-solicited emails, in which many may have gone unread, or captured in the "spam" folder. Even though this model proved to be a strength, it also led to a weakness which is described in the next section.

Conducting live interviews, which recorded sufficient depth of thought for the CSID to successfully grade the responses, also proved to be a strength. Each interview lasted approximately 45 to 60 minutes, and each transcription provided suitable responses for scoring by the CSID.

Weaknesses

Even though obtaining the sample through networking was a strength, it also led to a weakness in the research design. This weakness was the lack of ministry diversity among student participants who attended non-confessional colleges or universities. Most students interviewed from non-confessional institutions, even though from separate colleges or universities, participated in the same parachurch organization. Even though obtaining a more diverse sample of non-confessional students was attempted, more value may have been gained by "casting a wider net" and locating pre-ministry students who attended a variety of church or parachurch organizations.

A second weakness of the research design was not being able to observe, face-to-face, the student being interviewed. Even though utilizing the conference call service to conduct the interviews allowed for recognition of tone, vocal variety, and pitch, it did not allow me to observe non-verbal cues. If the interviews could have been conducted in person, over satellite conferencing, over Skype, or using FaceTime, I could have observed facial expressions, gesturing, or other non-verbal's which may have led to improved questioning.

Another apparent weakness was my inexperience conducting research interviews. Even though I had practice during my pilot studies, looking back on the transcripts I can see times when a clearer or more directly related follow-up question could have been asked. Additional questions may have helped explore responses in greater depth, assisting with the analysis. Even the CSID, when reviewing some of the transcripts, commented on the importance of proper follow-up questions. As this was my

first experience conducting research interviews, this opportunity will prove valuable in any future research studies.

Overall, the qualitative research design successfully served its purpose in obtaining meaningful and thoughtful student responses. It was the most appropriate design, providing data which was scored, thoroughly analyzed, and accurately categorized. The design aided in obtaining the data necessary to summarize findings that provide valuable information for all pertinent stakeholders.

CHAPTER 5

CONCLUSIONS

This research project investigated the epistemological development of Christian undergraduate pre-ministry students attending confessional versus non-confessional liberal arts colleges and universities. It was a further expansion of research conducted by John David Trentham in his 2012 study of the epistemological growth of Christian students attending Bible colleges, liberal arts colleges, or secular colleges.[1] In this new qualitative study, thirty-one students were interviewed. What made this study unique is how analysis and evaluations were made between those pre-ministry students who attended confessional liberal arts institutions from those pre-ministry students who attended non-confessional liberal arts institutions. Prior to undertaking the study, pertinent precedent literature was reviewed on developmental theorists such as William G. Perry and others. Literature was also reviewed surrounding the secularization of American colleges, and the current and future state of liberal arts colleges in America.

After the completion of the research, transcripts were analyzed by the Center for the Study of Intellectual Development (CSID) led by William S. Moore.[2] Each student was assigned a Measure of Intellectual Development (MID) rating score.[3] This score was used for analysis and was also converted to a numerical score statistical analysis. I also

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[1]John 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).

[2]William S. Moore, "Interpreting MID Ratings" (Olympia, WA: Center for the Study of Intellectual Development, 2004), 1.

[3]Ibid.

conducted my own analysis of the findings. From Trentham's original study, he documented what is now commonly called "Trentham's Epistemological Priorities and Competencies."[4] Each transcript was analyzed, using ten priorities across three categories, to determine if select responses demonstrated competency within each priority, or not. A comparison was also made with the CSID rating to determine any correlation.

The following pages include the conclusions and findings from these analyses. I highlight research implications, research applications, research limitations, and the need for further research.

Research Purpose and Questions

The purpose of this study was to explore the variance of epistemological development in evangelical Christian pre-ministry students attending confessional Christian liberal arts colleges or universities, versus those attending non-confessional liberal arts colleges and universities, using the Perry Scheme as the theoretical lens. The following research questions guided the research.

1. What is the relationship, if any, between the nature of pre-ministry undergraduates' epistemological positioning and attendance at either a confessional or a non-confessional institution?

2. What distinctive contextual dynamics may be observed at confessional versus non-confessional colleges and universities that may impact an evangelical student's epistemic maturity and missional commitment?

3. How may a typical non-confessional liberal arts collegiate environment compare with a typical secular university environment with regard to a pre-ministry student's personal development and vocational preparation?

Research Implications

This section discusses implications to the study resulting from the analysis of the findings. Several implications surfaced surrounding the research:

1. Epistemological positioning and maturation, using the Perry Scheme as the theoretical lens, on average, showed those Christian pre-ministry students attending

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[4]Trentham, "Epistemological Development," 169-80.

confessional liberal arts college or universities rating slightly higher than those attending non-confessional liberal arts colleges or universities.

2. Epistemological positioning and maturation, using the Perry Scheme as the theoretical lens, is consistent among those pre-ministry students attending confessional or non-confessional institutions.

3. Epistemological positioning and maturation, using the Perry Scheme as the theoretical lens, is consistent between non-confessional liberal arts institutions and secular institutions.

4. Most Christian pre-ministry students attending confessional and non-confessional liberal arts colleges or universities overwhelmingly valued their liberal arts education.

5. "Undergraduate students appeared to appeal to scripture and the Bible, not as revelation, but as evidence."[5]

6. Christian students are growing in commitment to full-time vocational ministry at confessional and non-confessional institutions. Although many attending confessional institutions focus on the pastorate, church service, or traditional missions, while those attending non-confessional institutions tend to focus on service with parachurch organizations.

7. Students in both confessional and non-confessional institutions overwhelmingly valued their relationship and interactions with faculty.

8. Students expected classes and assignments to be challenging during college.

9. Female Christian college students are enthusiastically committing to full-time vocational ministry, possibly in higher numbers than their male counterparts.

10. Students attending non-confessional institutions have more interaction with others holding to a more diverse set of beliefs or value systems, or different religions, similar to those students who attended secular institutions.

11. Students attending non-confessional institutions face professors who are more antagonistic toward their Christian faith and belief in the truth of the Bible, similar to those students who attended secular institutions.

12. Students attending confessional institutions experience living in a more insulated Christian-oriented environment, some described as a Christian "bubble."

13. A commonality between students attending confessional and non-confessional institutions is the importance of relationships in their college experience.

Research Question 1 Implications

Epistemological positioning and maturation, using the Perry Scheme as the

theoretical lens, on average, showed those Christian pre-ministry students attending

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[5]John David Trentham, response to research data, March 7, 2017.

confessional liberal arts college or universities rating slightly higher than those attending non-confessional liberal arts colleges or universities. With this study, the mean MID score for confessional students was 3.27. The mean MID score for non-confessional students was 3.11. Thus, the mean score for confessional students was 5 percent higher than the score for non-confessional students. The discrepancy between the median scores was even greater, with an 11 percent difference between the median confessional score and the median non-confessional score. The median score of confessional students was 3.33. This compared to the median score for non-confessional students at 3.0.

Epistemological positioning and maturation, using the Perry Scheme as the theoretical lens, is consistent among those pre-ministry students attending confessional or non-confessional institutions. The CSID states cognitive scoring of students follows the range of Perry positions 2 through 5. Although, most students fall between Perry positions 3 through 4. Students in this study generally had scores falling within this range of 3 through 4. This result is in line with previous studies by Trentham, Long, Sanchez, Cannon, and Stuckert as listed in table 21.[6]

Table 21. Comparison of mean MID rating scores among studies

Study	Average (Mean) MID rating score				
	Bible College	Confessional Liberal Arts	Non-Confessional Liberal Arts	Secular Institution	Seminary (Graduate students)
Trentham	3.46	3.534	3.135	-	-
Long	3.45	-	-	--	-
Sanchez	-	-	-	3.10	-
Cannon	-	3.15	-	-	-
Stuckert	-	-	-	-	3.25
Leatherman	-	3.27	3.11	-	-

[6]Trentham, "Epistemological Development", 208. Gregory B. 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), 86. Christopher Sanchez, "Epistemological Development in Pre-Ministry Undergraduates Attending Secular Universities" (Ed.D. thesis, The Southern Baptist Theological Seminary, 2015), 69. Bruce Cannon, "Epistemological Development in Pre-Ministry Undergraduates Attending Confessional Christian Liberal Arts Colleges or Universities" (Ed.D. thesis, The Southern Baptist Theological Seminary, 2015), 71. Jonathan Derek Stuckert, "Assessing Epistemological Development among Evangelical Seminarians" (Ed.D thesis, The Southern Baptist Theological Seminary, 2016), 75.

Research Question 2 Implications

Most Christian pre-ministry students attending confessional and non-confessional liberal arts colleges or universities overwhelmingly valued their liberal arts education. When asked what they valued most about their education, students had multiple reasons, explanations, and stories on why they valued their education. A number specifically spoke of the value of attending a liberal arts institution. Many students found it difficult to express examples of what they did not like about their college experience. Students speaking specifically about the liberal arts appreciated the broad-based education they received, realizing how it expanded their overall knowledge.

"Undergraduate students appeared to appeal to scripture and the Bible, not as revelation, but as evidence. The students used the Bible more of an answer book instead of God's revealed Word. Instead of viewing Scripture as one way God reveals himself and helps to orient one's life, its used more from a utilitarian purpose. The Bible is used like an encyclopedia to answer questions."[7] During the review and analysis of Trentham's ten epistemological priorities, it became evident that most students were not viewing Scripture as revelation and Truth, but as a tool for inquiry, increasing knowledge, or resolving difficult questions. This realization emerged specifically while reviewing Trentham's priority 1: "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."

Christian students are growing in commitment to full-time vocational ministry at both confessional and non-confessional institutions. Although many attending confessional institutions focus on the pastorate, church service, or traditional missions, while those attending non-confessional institutions tend to focus on service with the parachurch organizations they have been involved with during college, During the analysis of the research, it was noted how most students who attended confessional

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[7]Trentham, response to research data.

institutions involved themselves with campus ministries, Bible studies, or denominational ministries at the institution. Non-confessional institution students tended to involve themselves with parachurch organizations. For these reasons, it was no surprise to see non-confessional pre-ministry students preparing to work for parachurch organizations, while pre-ministry confessional students tended to prepare to work at denominational ministries, missions, or churches.

Students in both confessional and non-confessional institutions overwhelmingly valued their relationship and interactions with faculty. During the analysis, it was obvious to see the value students placed on their relationships with faculty. In both types of institutions, the value of faculty relationships was high. Students specifically appreciated faculty that took an interest in them personally and faculty who had a sincere passion for what they teach. Forty-two percent of the students even mentioned how faculty impacted their desire to go into Christian ministry. A small number of students expressed how this was due simply because of the realization that many faculty are spiritually lost, or simply because of the knowledge the faculty bestowed on them. Although, most the 42 percent expressed that they were impacted by the relationships they had with faculty.

Students in both confessional and non-confessional institutions expected classes and assignments to be challenging during college. Students regularly expressed their expectation that college should be challenging. Several students even expressed disappointment when classes were too easy, redundant with what they learned in high school, or when they felt it did not significantly expand their knowledge. One student even expressed how she was disappointed in choosing her major because it had not provided the challenges she expected for a college program.

Students attending confessional institutions experience living in a more insulated Christian-oriented environment, some described as a "Christian Bubble." Many of the students who attended confessional liberal arts institutions expressed how

they primarily interacted with other Christian students similar to them in belief. They admit to discussing and debating differing positions, although these positions were more specific to Christian topics such as church doctrine, baptism, or women's roles in ministry. These debates were very different than what the students who attended non-confessional students experienced. Several of the confessional institution students mentioned living in a "Christian Bubble." This "Christian Bubble" phenomenon was written about in other previous studies.

A commonality between students attending confessional and non-confessional institutions is the importance of relationships in their college experience. Students overwhelmingly stressed the value of relationships during college. As might be expected, the types of important relationships varied by the student. Students valued relationships with roommates, mentors, professors, classmates, Bible study leaders, campus ministry leaders, parachurch ministry leaders, and supervisors. More than the type of relationship, the fact that the student had one or more special individuals to spend their college experience with was extremely impactful. The importance of relationships during college was also mentioned in previous studies.

Female Christian college students are enthusiastically committing to full-time vocational ministry, possibly in higher numbers than their male counterparts. In this study, 65 percent of the pre-ministry students interviewed were women (see table 3). If this percentage is representative of current colleges and universities, and not just an anomaly due to this research study, it may have significant implications for seminaries, churches, and mission organizations.

Research Question 3 Implications

Epistemological positioning and maturation, using the Perry Scheme as the theoretical lens, is consistent between non-confessional liberal arts institutions and secular institutions. The mean MID score for the non-confessional students in this study is almost identical to the mean MID score for Sanchez's study of students at secular

institutions. It is also near Trentham's MID mean of non-confessional institution students. The mean for this study of non-confessional institution students came in at 3.11 (see table 21), compared to Sanchez's mean for secular institution students at 3.10. Trentham's study of non-confessional institution students had a mean of 3.135.

Students attending non-confessional institutions have more interaction with others holding to a more diverse set of beliefs or value systems, or different religions, which is similar to those students who attended secular institutions. Students in this study who attended non-confessional institutions expressed the many opportunities they had to experience, explore, learn about, discuss, and debate diverse moral and religious positions directly opposed to their own. This compared closely to students who attended secular institutions, and very different from what many of the students experienced at confessional institutions. The experience of non-confessional institution students being required to synthesize their thoughts, and to express or debate with those opposed to their beliefs, may lead to improved critical thinking skills, which may assist in the maturation process and assist the student in vocational ministry.

Students attending non-confessional institutions face professors who are more antagonistic toward their Christian faith and belief in the truth of the Bible, similar to those students who attended a secular institution. In this study, pre-ministry students who attended non-confessional liberal arts institutions shared how some professors were vocally opposed to the things of Christ. This included casting doubt on the Bible, debasing the Christian faith, and speaking about what they believed to be the negative impact of Christian missions. These students were faced with the difficult decision of keeping quiet during class or taking the risk to share their opposing view with the professor and class. Several students expressed how they took the risk to share their Christian perspective with the class and professor.

Research Applications

First, this research provides reassurance for professors to continue developing close positive working relationships with their students. These positive relationships may aid in the overall development of college students. Professors will be encouraged to know their commitment to students is valued by those students, and how these relationships assist in the student's maturation process. Professors may also determine how they can successfully utilize the Perry Scheme in identifying student developmental stages and patterns of growth, or "deflections from growth" in their students.[8]

Second, this research may aid human resources and recruiting personnel at churches and Christian ministries. They will see how God is raising up Christian workers at both confessional and non-confessional liberal arts colleges and universities and may be aided in targeting students interested in full-time vocational Christian ministry. Human resources recruiters should focus their efforts, while recruiting at confessional liberal arts institutions, working primarily within the Christian ministries department. At non-confessional institutions, recruiters should focus their primary recruiting efforts within parachurch organizations or denominational student ministries serving at the institution.

Third, this research may assist pastors, parents of high school students, and high school students who have been called into Christian ministry. It will show how college students in both confessional and non-confessional liberal arts colleges can develop in preparation for Christian ministry. It also shows the importance for students who attend non-confessional liberal arts colleges to connect with active parachurch or church student organizations on their campus.

Fourth, this research may aid evangelical Christian seminaries in targeting potential master's level students, from liberal arts institutions, for enrollment. It may also help faculty at seminaries to understand epistemological growth better, as well as

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[8]William G. Perry, Jr., *Forms of Intellectual and Ethical Development in the College Years: A Scheme* (New York: Holt, Rinehart, and Winston, 1970), 57-58.

strengths and weaknesses of pre-ministry students who attended confessional versus non-confessional colleges or universities.

Research Limitations

The applications of this study are on several fronts, but there are also specific limitations to the study. Next is a list of limitations that should be taken into consideration:

1. This sample was taken from students residing in seven of the fifty states in the United States. Due to demographic, cultural, diversity, or other reasons, it does not necessarily represent students residing in other states or students from other countries.

2. This study utilized a sample of thirty-one students. Due to the limited number of participants, statistical analysis of the data may not hold true, or be statistically significant, compared with a larger sampling.

3. The sample is comprised solely of students who would likely self-identify as being evangelical Christians. It does not necessarily reflect students who may consider themselves to be Christian, but not evangelical. It also does not reflect non-Christian students.

4. The model employed to obtain the sample was primarily through networking. Findings may differ from studies where samples are obtained through a mass email marketing campaign.

   Due to the difficulty in locating pre-ministry students from other parachurch organizations, most students who were interviewed from non-confessional institutions were involved in one primary parachurch organization. Differences may exist from other research utilizing a student sample with more diversified ministry participation.

5. Student epistemological development, along the Perry Scheme, was scored by William S. Moore and the CSID. Scoring for Trentham's Epistemological Priorities and Competencies was completed by John David Trentham, with collaboration by Jonathan Stuckert and myself. Reviewers of this research should consider any inherent biases or subjectivity in the analysis.

Further Research

Previous research conducted by Trentham, Long, Sanchez, Cannon, and Stuckert showed a higher percentage of male participation in the study than females. This present study was comprised of a higher percentage of women, which may be a direct result of a higher percentage of women recently attending college compared to men, or it could simply be a result of this sample. Further research should be conducted to

determine if more women than men are entering full-time Christian vocational ministry, and what relationship, if any, is there between their epistemological development and the type of vocational ministry they pursue. The research should also investigate when females are making the commitment to vocational ministry and what cultural influences, if any, may be impacting their decision for full-time Christian ministry.

Many of the students attending non-confessional colleges expressed significant enthusiasm in full-time vocational ministry, with parachurch organizations, but frequently mentioned they were not sure how long they would serve in full-time ministry. As longevity in ministry is important, further research should be conducted to determine if those working in parachurch organizations tend to serve in a long-term capacity, or if their service in vocational ministry is short term.

Most of the pre-ministry students interviewed were involved in campus ministries while on their campus. This included denominational ministries, parachurch ministries, or ministries within the institutions own Christian ministry department. Further research should be conducted to evaluate the efficacy of campus ministry involvement and its relationship to personal development.

Many of the students interviewed served in leadership roles during their college experience. This included service in a broad array of areas such as sports, ministry, Greek life, campus organizations, and the like. Further research should be conducted to determine the relationship between student leadership involvement and epistemological development.

While networking to obtain the sample population, I was most successful in working with one specific parachurch organization that regularly shared with me names of students pursuing full-time vocational ministry. Even when proactively attempting to locate pre-ministry students from other parachurch organizations, I had minimal success. I regularly received no response, could not locate contact information for other ministry staff, or was told by their staff, or told by staff of other organizations, that they knew of

no students seeking vocational ministry with that organization, from that specific school. Further research should be conducted to find out why CRU, previously known as Campus Crusade for Christ, is successful in developing student leaders committed to vocational Christian ministry, and how these strategies can be translated into use by other parachurch student ministries, or denominational student ministries.

Most students in the study expressed appreciation for their college experience. As this study only involved college seniors or recent graduates, further research should be conducted of liberal arts institution graduates after a five to ten-year span of time. The study could investigate the level which liberal arts students value their education after a span of time has gone past. Comparisons should again be made of those students who attended confessional institutions versus those who attended non-confessional institutions.

This study evaluated the epistemological development of pre-ministry college seniors or recent college graduates. It did not make inferences as to whether those with a high MID score would ultimately find career, family, or life success and happiness. A longitudinal study should be conducted to determine whether a relationship exists between high MID scores and long-term career, family, and life success and happiness. Comparisons should be made between those students who attended confessional, non-confessional, Bible, secular institutions, or seminaries.

Conclusion

This study replicated earlier studies surrounding epistemological growth and maturation of college students. It more specifically focused on Christian pre-ministry student development, using the Perry Scheme as the theoretical lens, as done in recent studies by Trentham, Long, Sanchez, Cannon, and Stuckert. The uniqueness and value of this study is how it compared pre-ministry students attending confessional versus non-confessional liberal arts colleges or universities.

Starting this research, I expected the scores given by the CSID to show higher ratings for students who attended confessional liberal arts colleges or universities versus those who attended non-confessional institutions. At the completion of this research, the mean and median of the sample did show overall higher scores for confessional students, even though scores were close. Although, the student with the highest overall score attended a non-confessional institution.

It was no surprise to hear students, who attended non-confessional institutions, describe interactions with faculty challenging their Christian faith, biblical historicity, scriptural inerrancy, or espousing non-biblical values. Due to secularization, there appears to be less and less difference between many non-confessional colleges and universities from secular institutions. What was surprising was to hear of instances from Christian students attending confessional institutions who had professors disparage the Bible, or who did not adhere to traditional biblical values.

Overall, while conducting individual analyses of the data, it was heartening to read how God continues to call students for His service. For institutions immersed in the secularization process, it can be discouraging to watch how those institutions are gradually moving away from the things of Christ. However, God is faithful and he has not forgotten the students attending such institutions. Through parachurch organizations and denominational student ministries, God continues to raise up student leaders willing to minister to other students by sharing the good news of Jesus Christ. Some of these students will eventually pursue full-time vocational Christian ministry. This observation is important because, as Christ taught his disciples, "the harvest is plentiful, but the workers are few" (Luke 10:2).

APPENDIX 1

THESIS STUDY PARTICIPATION FORM

This Thesis Study Participation Form has been adapted from the John David Trentham Dissertation Study Participation Form, originally utilized in 2012. [1]

The study you have been invited to participate in will focus on development of pre-ministry students attending confessional or non-confessional Christian Liberal Arts Colleges. This research is part of a larger body of research examining pre-ministry students. The research is being conducted by W. Dale Leatherman, Doctoral Research Student at Southern Baptist Theological Seminary. If you agree to participate in this study, you will complete and sign on the form below. Agreeing to participate means you agree to participate in a forty to fifty minute, one time, interview by telephone, or skype. The information you provide will be held in strict confidence, and your responses will never be associated with your name in final reporting. The reason for your selection in this study is your self-identification as a pre-ministry student. Your involvement in this study is totally voluntary, and you are free to withdraw from this study at any time, and for any reason.

By your completion of this form, checking the appropriate box below, and participating in the interview process, you are providing informed consent for the use of your responses in this important research.

[   ]   I agree to participate
[   ]   I do not agree to participate

Name: _____   Date: _____

Signature: _____   Gender: _____

Email: _____   Year of birth _____

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[1]John 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), 224-25.

Data Collection

1. Name and campus location of the college or university you are currently attending:
   _____

2. Years of attendance: _____ Class level_____

3. Name of previous college or university attended:
   _____

4. Years of attendance: _____

5. Do you reside on campus, commute, or study on line? _____

6. Do you intend to enroll in seminary? _____

7. At what church do you maintain membership or involvement during college (name and location)?
   _____

8. What areas of ministry are you currently involved in at your church during college (i.e. youth ministry, children's ministry, etc.)?
   _____
   _____

9. What other church, para-church, or social ministries (if any) are you involved in during college (i.e. CRU, Navigators, BCM, InterVarsity, Habitat for Humanity, etc.)?
   _____
   _____

10. When did you decide to pursue vocational ministry (before or during college)?
    _____

11. If during college, which year of college? _____

APPENDIX 2

STANDARDIZED PERRY INTERVIEW PROTOCOL

1. 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 many cases will 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?

Possible follow-up probes in each area:

5. 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?

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

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

1. **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.

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

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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

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

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

2. 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?)

3. 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?)

4. 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 (RQ2)

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

6. 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?)
    - 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?)

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[1]This protocol has been slightly modified with the addition of questions that probe the students experience with extracurricular activities designed/planned by Student Services.

7. 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)

8. 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?)

9. 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?

10. 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?
    - Related (if necessary). Through college, did you participate in extracurricular activities sponsored by Student Services/Student Affairs? What types of activities were they? Did these activities coincide with coursework or were they completely separate? Do you feel these types of activities enhanced your personal college experience? How so?[2]

Questions regarding personal commitment (RQs 1, 2)

11. 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 matters of theology, practices in the church, etc.?))
    - • Probe here about the relation of "proof" to personal knowledge/beliefs/faith.

12. 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?)

13. 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

---

[2]Additional questions added to this protocol inquiring. These questions are intended to identify different activities designed by or simply sponsored by Student Services that add to the college experience of undergraduate students.

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?)

Final question

14. 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

DATA SUMMARY

Table A1. Data summary

CODE	RATING		NOTES
Ann	334	F	
Ruth	333(4)	F	Glimpse 4
Barb	444	F	
Martha	233	F	
Monica	334	F	
Bill	445	M	
Susan	333	F	Early
Amber	233	F	
Mellissa	333 (4)	F	glimpse 4
Bruce	233	M	Flooded
Bob	333 (4)	M	glimpse 4
Christy	344	F	
Mark	334	M	
Timothy	334	M	
Fred	233	M	
Amy	344	F	
Todd	333 (4)	M	glimpse 4
Tony	334	M	
Victoria	233	F	
Emily	333	F	Early
Alice	233	F	
Larry	233	M	
Michelle	334	F	
Zayle	344	M	
Cynthia	334	F	2/4 split
Blake	334	M	
Samantha	334	F	2/4 split
Jennifer	344	F	
Vicky	333 (4)	F	glimpse 4
Heather	333	F	
Tiffany	334	F	

APPENDIX 6

MEASURE OF INTELLECTUAL DEVELOPMENT
RATINGS INTERPRETATION

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Interpreting MID Ratings

The **MID** is scored by raters who have trained extensively in the general Perry scheme <u>and</u> 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 classroom learning along a linear, simple stage model continuum (see Rest, 1979, <u>Judging Moral Issues</u>, for a thorough discussion of simple vs. complex cognitive stage model assumptions).

MID rating summary sheets will normally include three ratings--the two individual raters' ratings and the final, or reconciled, rating. In some instances, there will be a third individual rating, which means that the two original raters could not agree on a reconciled rating; rather than flip a coin or fight it out, a third rater is consulted. We recommend that two figures be computed for interrater reliability: **absolute agreement** and **within 1/3 position agreement**. The former indicates the percentage of the sample on which the two raters produced identical initial ratings, the latter the percentage on which the raters'

individual ratings were 1/3 position different (or less, meaning this figure <u>includes</u> cases in which there was absolute agreement). Our rater training standard for certification is 90% for the within 1/3 position agreement figure. For a further discussion of the current inter-rater reliability data available on the **MID**, see the complete instrument manual (Moore, 1987) available from CSID.

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 <u>only</u> be treated as categorical data. Other experts, however, including respected psychometricians like Jum Nunnally (<u>Psychometric Theory</u>, 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.

1) 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 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 1/3 a position, in effect). Conceptually, I would argue that these essays <u>are</u> 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.

Note Regarding Normative/Comparative Data

Formal normative data for the *MID* instrument have not been developed; we have not had the staff or resources to conduct such studies, and we also believe that the effort to "match" samples and colleges is problematic given the range and diversity of variables involved. In our judgment, there are two major recommended strategies:

1) **the best "norms" are internal to the institution or program—determine a baseline and then monitor one's progress in terms of that baseline;**
2) **develop criterion-based rather norm-based standards—how does the profile of student data compare to faculty expectations regarding intellectual development for the course, program or college as a whole?**

In any case, whether comparisons are normative or criterion-based, the significant issue is not the relative judgment involved—"we're .3 of a position ahead (or behind) of the average of our peers"—but rather what, if anything is to be done to help improve or sustain the kind of intellectual development seen in the data.

Having said that, because the interest in comparisons is so persistent, we have included two tables drawn from the *Measure of Intellectual Development* manual providing general comparison data for classification (year in school), age, and gender. 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.

If you have any further questions, or if anything on the summary is unclear, feel free to give me a call at the Center--360-786-5094, or email me at wsmoore51@comcast.net.

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Nunnally, J. (1967). Psychometric theory. New York: McGraw-Hill.

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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.

Measure of Intellectual Development (MID)

Table A2. Comparative file data—by classification, age, and gender[1]

Class	N	Mean	Pos. 2	Tr*	Pos. 3	Tr	Pos. 4	Tr	Pos. 5
Freshmen	1695	2.80	4.7 %	44.1 %	38.9 %	11.0 %	1.3 %	0.0 %	0.0 %
Sophomores	367	2.88	1.9 %	42.0 %	37.6 %	15.3 %	2.7 %	0.5 %	0.0 %
Juniors	358	2.91	2.5 %	33.0 %	47.2 %	15.4 %	1.4 %	0.3 %	0.3 %
Seniors	337	2.98	1.8 %	29.7 %	46.9 %	15.4 %	4.7 %	1.5 %	0.0 %
Age	N	Mean	Pos. 2	Tr*	Pos. 3	Tr	Pos. 4	Tr	Pos. 5
18	378	2.87	1.1 %	40.5 %	45.0 %	11.4 %	2.1 %	0.0 %	0.0 %
19	229	2.81	1.3 %	48.9 %	38.9 %	7.9 %	3.1 %	0.0 %	0.0 %
20	200	2.87	0.5 %	41.0 %	44.5 %	11.5 %	2.5 %	0.0 %	0.0 %
21	116	2.91	1.9 %	35.3 %	46.6 %	15.5 %	1.7 %	0.0 %	0.0 %
22+	99	2.90	0.0 %	43.4 %	41.4 %	10.1 %	2.0 %	2.0 %	1.0 %
Gender	N	Mean	Pos. 2	Tr*	Pos. 3	Tr	Pos. 4	Tr	Pos. 5
Males	526	2.92	1.7 %	40.1 %	37.2 %	15.7 %	4.3 %	0.5 %	0.1 %
Females	1287	2.89	1.0 %	37.2 %	47.0 %	11.8 %	2.4 %	0.3 %	0.1 %

*Tr = Transition

Selected Cross-Tabulations

Table A3. Age by classification (Perry Means)

	18-19	20	21	22	23+	Row N
Freshmen	2.70	2.77	--	--	2.84	78
Sophomores	2.76	2.86	2.70	--	2.96	57
Juniors	--	2.92	2.90	2.91	3.00	151
Seniors	--	--	2.81	2.96	3.25	84
Column N	67	82	100	54	67	370

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[1]Data drawn from multiple institutions over multiple years—not developed formally for the purposes of defining norms

Table A4. Gender by classification*

		N	Mean	Position 2	Position 3	Position 4	Position 5
Freshmen	Males	33	2.75	30.3 %	66.7 %	3.0 %	0.0 %
	Females	53	2.83	22.6 %	69.8 %	7.5 %	0.0 %
Sophomores	Males	25	3.01	16.0 %	72.0 %	8.0 %	4.0 %
	Females	40	2.82	17.5 %	80.0 %	2.5 %	0.0 %
Juniors	Males	36	2.86	13.9 %	83.3 %	2.8 %	0.0 %
	Females	117	2.93	6.0 %	89.7 %	4.3 %	0.0 %
Seniors	Males	41	3.00	14.6 %	63.4 %	22.0 %	0.0 %
	Females	46	3.02	4.3 %	87.0 %	8.7 %	0.0 %

* Single sample – large, public, mid-Atlantic university (total N=391)

MEASURE OF INTELLECTUAL DEVELOPMENT
SAMPLE SUMMARY

Primary Cues Cited

SOURCE: Dale Leatherman   *DATE COLLECTED*: 2016
                                   Form: Interviews

SAMPLE OVERVIEW: college seniors

CUES FOR POSITION 2	**CUES FOR POSITION 3**
___ focus on facts/content—What to learn process/methods—How to learn	_x_ concern w/
_x_ learning as information exchange (multiple perspectives)	_x_ opening to multiplicity
___ "Teacher (Authority) is all" (T-centered) practicality/relevance	_x_ focus on
_x_ emphasis on 1-to-1 relationship with teacher teacher/student relationships	_x_ learning a function of
___ peers noted primarily as "friends in class," "fun"	___ student responsibility = working hard and/or learning skills
___ rule structures	
___ focus on teacher providing structure/clarity	___ discussion endorsed (peers provide diversity of opinions)
for learning	
___ simple comfort in classroom/physical environment atmosphere	___ "safe" and/or relaxed
___ emphasis on clearcut/straightforward grading details	_x_ quantity/qualifiers; lots of
("no tricks")	_x_ focus on challenge/ hard
work = good grades	
___ use of absolutes and/or dichotomies in language issues (especially fairness)	___ emphasis on evaluation
___ simplistic; focus on "fun," little on learning	___ listing (simple, unelaborated); multiples w/ little connection
___ Other cues and/or Quotes:	___ Other cues and/or Quotes:

CUES FOR POSITION 4	CUES FOR POSITION 5**
_x_ focus on ways of thinking—How to think	__ focus on qualitative evidence—How to judge in context
___ concern w/ independent thinking, freedom of expression ("meta-thought")	___ reflection on own thinking
___ " anything goes" perspective ("Do Your Own Thing") frames of reference	_x_ understanding of different
_x_ "New Truth" rules (absolutes within multiplicity) openness in language	___ greater tentativeness,
_x_ teacher a facilitator/guide (source of way/s to think) source of expertise	___ teacher as learning partner,
___ peers noted as sources of learning (but unelaborated) in learning process	___ peers seen as full partners
_x_ student more active, taking more responsibility agent in own learning for learning	_x_ strong sense of self-as-
___ increased self-processing, ownership of ideas ideas and themes	___ emphasis on synthesis of
___ endorses loosely-structured format	_x_ endorses seminar, argument, discussion of ideas
___ rejects grading and/or memorizing ("regurgitation") critique/evaluation in learning	___ acknowledges role of
_x_ comfort w/ multiplicity, connections across disciplines	___ appreciation for other perspectives (empathy)
___ Other cues and/or Quotes:	___ Other cues and/or Quotes:
**Positon 5 cues didn't come up often in this sample but when they did, these were the ones cited.	

GENERAL COMMENTS:
* "3-4" indicates a passage that reflect transition, with elements of both positions 3 and position 4
* "3 (glimpse 4)" or "3+" indicates mostly a position 3 focus with a possible glimpse of or early opening to position 4
* "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
* extensive responses to many questions in the interview will provide rich qualitative data on faith perspectives but were not relevant to epistemological framework from Perry perspective as defined here

APPENDIX 8

CURRICULUM VITAE FOR WILLIAM S. MOORE

WILLIAM S. MOORE

1505 Farwell Ct. NW

Olympia, Washington 98502

360-704-4346 (work) 360-786-5094 (home)

bmoore@sbctc.ctc.edu (work) wsmoore51@comcast.net (home)

AREAS OF EXPERTISE

♦ TEACHING/LEARNING ISSUES
♦ ASSESSMENT OF STUDENT LEARNING
♦ INTELLECTUAL DEVELOPMENT
♦ EDUCATIONAL REFORM/POLICY ISSUES
♦ FACULTY/PROFESSIONAL DEVELOPMENT
♦ INSTITUTIONAL EFFECTIVENESS
♦ ORGANIZATIONAL CHANGE

CHRONOLOGICAL WORK HISTORY

Director, K-12 Partnerships and Core to College Alignment   *August, 2013--present*
Coordinator, Student Outcomes Assessment   *January, 1990—July, 2013*

Washington State Board for Community & Technical Colleges
Olympia, Washington

- Coordinated the higher education assessment initiative in the state, most recently focusing much of his work on college readiness in mathematics and high school/college articulation issues.
- Directed several math-related systemic reform initiatives in Washington, including the Transition Math Project from 2004-2009, the Re-Thinking Pre-College Math project from 2009-2012, and the Washington Core to College project (through the end of 2014)

- Currently directing the Bridge to College Project, a collaborative partnership with the Office of Superintendent for Public Instruction

Coordinator, Center for the Study of Intellectual Development
Olympia, Washington   *Spring, 1981-present*

- Coordinate Perry data rating and scoring; advise researchers around the country on various Perry-related research projects; train Perry raters
- Consult with faculty and student affairs professionals on teaching/learning implications of the Perry scheme [see "Presentations/Workshops" section for recent consultations]

Visiting Professor, University of Georgia
Athens, Georgia   *Sept., 1988-June, 1989*

- Taught master's level courses in developmental theories, educational outcomes assessment issues, theory-to-practice, and developmental interventions
- Supervised and coordinated field work experience for master's students

Student Development Educator, Longwood College
Farmville, Virginia   *July, 1983-Sept., 1988*

- Coordinated a comprehensive, developmentally-based student involvement program; designed interventions, created assessment instruments, created developmental transcript, conducted small group discussions with students, promoted project internally and externally
- Conducted student life research--retention/attrition, quality of life(residential, academic), student attitudes and time usage, etc.; report data to campus community
- Taught courses for Longwood Seminar program and psychology department
- Collaborated with academic affairs on programs geared to undeclared students and academic "problem" students (career planning concerns, study skills, scheduling/advising, etc.)

Coordinator, Career Planning Course, Career Development Center, University of Maryland
College Park, Maryland   *Summer, 1981-83*

- Trained and supervised instructors for a developmentally-designed career planning course; taught same course
- Designed and revised course workbook materials and exercises
- Helped redesign self-help materials for Career Library and re-organize major sections of the Library itself

- Consulted with students, both individually and in groups, about career plans and career-related issues (e.g., 1981 Maryland Leadership Retreat)

Coordinator, National Clearinghouse for Commuter Programs, University of Maryland
College Park, Maryland   *Summer, 1980-1981*

- Wrote and edited articles for a quarterly national journal/newsletter, <u>The Commuter</u>
- Conducted research(collected and analyzed data, wrote summary report) on commuter institutions around the country
- Compiled and edited comprehensive bibliography on commuter-related issues
- Consulted with student affairs professionals on commuter-related programs and research

Area Coordinator, Office of Residence Life, Southern Methodist University
Dallas, Texas   *Summer, 1978-1980*

- Supervised a staff of 5 hall directors and 15 resident assistants
- Co-designed and coordinated the resident assistant selection process
- Coordinated the design of an overall staff development program for
- Implemented a variety of special housing options(e.g., room personalization, roommate matching with the MBTI, etc.) to enhance satisfaction in residence hall living
- Edited a comprehensive Office of Residence Life self-study report done for accreditation purposes
- Helped initiate a campus-wide Leadership Development program; conducted or co-led workshops on leadership issues and skills

Director, Career Planning and Placement, California Lutheran College
Thousand Oaks, CA   *Summer, 1976-1978*

- Created, organized, and maintained a Career Library structured around John Holland's typology model
- Initiated and taught a career planning course
- Counseled students individually and in groups on educational and vocational concerns
- Designed and conducted a number of structured group experiences, including a short-course in group dynamics

EDUCATION

Ph.D.   December, 1987   University of Maryland,
College Park
College Student Personnel Administration (Emphasis: student development)
 Major Advisor: Dr. L. Lee Knefelkamp

Topic: "The **Learning Environment Preferences**: Establishing Preliminary Reliability and Validity for an Objective Measure of the Perry Scheme"

M.A.   August, 1976   University of Texas at Austin
Counseling Psychology

Master's Report Topic: "Effects of Career Counseling on Locus of Control and Vocational Maturity"

B.A., Special Honors May, 1973   University of Texas at Austin
Plan II Honors program (concentrations in English and psychology)

RESEARCH/PUBLICATIONS

(2001). Understanding learning in a postmodern world: Re-thinking the Perry scheme of ethical and intellectual development. In B. Hofer & P. Pintrich (eds.), Personal epistemology: the psychology of beliefs about knowledge and knowing. Mahwah, NJ: Lawrence Erlbaum Associates.
(1996). (co-author: Michael J. Pavelich) Measuring the effect of experiential education using the Perry model. Journal of Engineering Education, 85(4), October,1996. p. 287-292.
(1995). 'My mind exploded': intellectual development and the assessment of collaborative learning environments. In J. MacGregor (Ed.), Handbook for Assessment in and of Collaborative Learning Environments. Olympia, WA: Washington Center for Improving Undergraduate Education.
(1994). Student and faculty epistemology in the college classroom: the Perry scheme of intellectual and ethical development. In K. Pritchard & R. M. Sawyer (Eds.), Handbook of College Teaching: Theory and Applications. Westport, CT: Greenwood Publishing Group.
(1994). Beyond 'mildly interesting facts': student self-evaluations and outcomes assessment. (co-author: Steve Hunter) In J. MacGregor (Ed.), Fostering Reflective Learning through Student Self-evaluations. *New Directions for Teaching and Learning*. San Francisco, CA: Jossey-Bass.
(1993). (co-author: Michael J. Pavelich) Measuring maturing rates of engineering students using the Perry model. IEEE Frontiers in Education conference proceedings, p. 451-455, 1993.
(1992). Standards and outcomes assessment: strategies and tools. (co-author: R.B. Winston, Jr.) In B. Bryan (Ed.), Using Professional Standards in Student Affairs, *New Directions for Student Services.* San Francisco, CA: Jossey-Bass.
(1991). Issues facing student affairs professionals in the 1990's. In T.K. Miller & R.B. Winston, Jr. (Eds.), Administration and Leadership in Student Affairs: Actualizing Student Development in Higher Education (2nd edition) Muncie, IN: Accelerated Development.
(1989). The Learning Environment Preferences: establishing construct validity for an objective measure of the Perry scheme of intellectual development. Journal of College Student Development, v. 30, November, 1989, p. 504-514.

(1988). The Measure of Intellectual Development: an instrument manual. Olympia, WA: Center for the Study of Intellectual Development (CSID).

(1988). Instrument manual for the Learning Environment Preferences: an objective measure of the Perry scheme. Olympia, WA: CSID.

(1988). Current issues in the assessment of cognitive development. The Georgia Journal of College Student Affairs, 3 (2), 11-14.

(1988). Assessing student development: the Longwood experience. VASPA Interchange, 16 (2), 1-4.

(1987). Longwood College Involvement Project.Report ED 283 498, Washington, DC: Educational Resources Information Center.

(1986). Perry scheme assessment issues. Perry Scheme Network Newsletter, v. 8, #1, p. 1-4.

(1985). Student development: an institution-wide commitment." ACU-I Bulletin, 53 (3), 21-25. (co-authors: Barb Gorski, Meredith Strohm, Kathe Taylor)

(1985). The Maryland career course: type/learning style issues. Report ED 253 791, Washington, DC: Educational Resources Information Center (ERIC).

(1985). The Maryland career course: Stage/style Interactions--the Perry scheme and the Myers-Briggs Type Indicator. Report ED 253 792, Washington, DC: ERIC.

(1982). Experiential learning and student development. Unpublished paper, Farmville, VA: Center for Applications of Developmental Instruction (CADI).

(1982). William Perry's Cognitive-Developmental Theory: A Review of the Model and Related Research. Farmville, VA: CADI. (for Fernald & Fernald, Introductory Psychology, 5th edition).

(1981). Adult development vs. student development? The Commuter (National Clearinghouse for Commuter Programs quarterly), Summer issue.

(1981). Trends in off-campus housing. The Commuter, Winter issue.

(1980). Philosophical foundations of programming. The Commuter, Fall issue (co-author: Dennis C. Roberts).

SELECTED PRESENTATIONS/WORKSHOPS

FACULTY WORKSHOPS ON INTELLECTUAL DEVELOPMENT AND THE PERRY SCHEME

- University of South Florida, January 2001 and December, 2000, Tampa, FL.
- College of Engineering, Penn State University, October, 1996, University Park, PA.
- American Association of Colleges & Universities Asheville Institute on General Education, June, 1996 and June, 1995, Asheville, NC.
- Eastern Washington University, May 1995, Cheney, WA.
- University of Colorado, September, 1994, Boulder, CO.
- Oakton Community College, January, 1994, Chicago, IL.
- Central Washington University, May, 1993 & October, 1993, Ellensburg, WA.
- Lafayette University, March, 1993, Easton, PA.
- Memphis State University, January, 1993, Memphis, TN. [with Kathe Taylor, CSID]
- Mt. St. Mary's College, September, 1992, Los Angeles, CA. [with Kathe Taylor]
- Seattle University, March, 1992, Seattle, WA.

- Eastern Washington University, February, 1992, Cheney, WA.
- Centralia College, January, 1992, Centralia, WA.
- Wheaton College faculty, February, 1991, Wheaton, IL.
- Sears Roebuck Teaching Fellows, Duquesne University, October, 1990, Pittsburgh, PA.
- University of Wisconsin, Oshkosh, May, 1988, Oshkosh, WI.
- Suomi College, April, 1988, Suomi, MI.
- The University of Texas at Austin, July, 1986, Austin, TX.

INSTITUTIONAL WORKSHOPS ON OUTCOMES ASSESSMENT

- Santa Clara University, August, 1999 and April, 2000, San Jose, CA.
- University of Washington graduate seminar on community colleges, October, 1997, Seattle, WA.
- Seattle University, Student Development assessment, June, 1997, Seattle, WA.
- Douglas College, June, 1997, New Westminster, British Columbia.
- North Seattle Community College Assessment Retreat, March, 1997, Seattle, WA.
- American Association of Colleges & Universities Asheville Institute on General Education, June, 1996 and June, 1995, Asheville, NC.
- Illinois College, August, 1996, Jacksonville, IL.
- Willamette University, May, 1995, Salem, OR.
- Lane Community College, September, 1994, Eugene, OR.
- Antioch University (annual multi-campus conference), April, 1994, Seattle, WA.
- Oakton Community College & Wm. R. Harper College, October, 1993, Chicago, IL.
- Seattle Central Community College Professional/Technical faculty, October, 1993.
- Douglas College, April, 1993, New Westminster, British Columbia.
- Bellarmine College, October, 1992, Louisville, KY.
- Northern Nevada Community College, August, 1992, Elko, NV.
- Skagit Valley College, April, 1992, Mt. Vernon, WA.

CONFERENCE PRESENTATIONS/WORKSHOPS

- "Assignments and assessments as the key to deep learning online: Outcomes, engagement, and interaction." American Association for Higher Education Assessment Forum, June, 2000, Charlotte, NC. [with Elaynne Rousso, Bellevue Community College]
- "Beyond the 'standards wars': Addressing more fundamental questions about teaching, learning and assessment." Keynote presentation at the Washington Assessment Group annual conference, May, 2000, Vancouver, WA.
- "Faith, proof, and judgment: The importance of keeping authentic assessment alive in an age of accountability ." Keynote presentation at the California State University-Fullerton Assessment Conference, March, 2000, Fullerton, CA.

- "Assessment in and of learning communities as a way to improve authentic institutional assessment." American Association for Higher Education Assessment Forum, June, 1999, Denver, CO.
- "'Exploding minds' and other hazards of 'really learning': Assessment in and of learning communities." Washington Center national conference on learning communities, May, 1999, Seattle, WA.
- "Assessment's role in institutional effectiveness." Association fall conference, October 29, 1997, Wenatchee, WA
- "Outcomes assessment and distance learning." Community College System new faculty seminar, September 11, 1997, Seattle, WA
- "Assessing performance of student learning." Aviation Accreditors outcomes assessment workshop, July 16, 1997, Seattle, WA
- "Performance assessments for college outcomes." Abilities Institute, June 25-27, 1997, North Bend, WA
- "Using the Perry scheme of intellectual development to re-think teaching and learning." *Teaching Science at the Tertiary Level* (an international conference for engineering educators, sponsored by Royal Institute of Technology, Stockholm, Sweden, June 14-17, 1997
- "Using student self-evaluations to understand intellectual development and learning outcomes." Washington Assessment Group annual conference, May 7-9, 1997
- "Outcomes assessment, changing paradigms, and the diffusion of innovation." Washington Assessment Group annual conference, May 7-9, 1997, Spokane, WA
- Quantitative Reasoning Transfer Outcomes Retreat, April 10-11, 1997, Seabeck, WA
- Developmental Education College-Readiness Outcomes Retreat, February 27-28, 1997
- "Focusing on learning principles in distance learning." Washington Center for Improving Undergraduate Education Annual Conference, February 14-15, 1997, Seattle, WA
- "Changing paradigms through outcomes assessment." Learning Paradigm conference, January 11-14, 1997, San Diego, CA
- "Assessing 'things that matter' through purpose, performance, and judgment." American Association of Colleges & Universities annual conferences, January 1996, 1995, 1994.
- "Balancing assessment and accountability toward educational reform: can two masters be served at the same time?" Pacific Northwest Association of Institutional Researchers & Planners annual meeting, October, 1995, Seattle, WA.
- "Assessing the ineffable: reaffirming a community of judgment in higher education." Washington Assessment Group annual conference, May 4-5, 1995, Spokane, WA.
- "Understanding the ineffable: the 'Student Voices' project." Washington Center for Improving Undergraduate Education annual conference, February 11-12, 1994, Bellevue, WA.
- "Outcomes assessment: reaffirming a collaborative community of judgment in higher education." Community College Humanities Association, October 27, 1994, Portland, OR.
- "Learning as transformation: Re-thinking outcomes assessment in higher education." The Minnesota-Wisconsin Workshop on General Education, sponsored by the

Association of American Colleges, Minnesota Community Colleges, & the University of Wisconsin Centers, November 20, 1993, St. Paul, MN.

- "Assessment, government, and public policy: responding to Kenneth Adelman." Pacific Northwest Association of Institutional Researchers and Planners, October, 1993, Vancouver, B.C.
- "Assessment as cultural revolution." Workshop for the Association of American Colleges annual conference, January, 1993, Seattle, WA. [with Steve Hunter, The Evergreen State College]
- "Ethical issues in assessment: student-centered assessment." Presentation at the American Evaluation Association annual meeting, November, 1992, Seattle, WA.
- "Assessment as cultural revolution: re-framing outcomes assessment at community colleges in Washington state." Presentation to the American Association for Higher Education Assessment Forum, June, 1992, Miami, FL.
- " The Perry scheme of intellectual and ethical development: issues and implications for the assessment movement." Workshop for the American Association for Higher Education Assessment Forum, June, 1991, San Francisco, CA.
- " Using student self-evaluations to assess intellectual development." Presentation to the American Association for Higher Education Assessment Forum, June, 1991, San Francisco, CA. [with Kirk Thompson and Steve Hunter, The Evergreen State College]
- "Assessment of the Perry scheme of intellectual development: a critical review of research and issues." Part of a symposium on "Measuring Thinking Processes" presented to the American Association for Educational Research national conference, April, 1991, Chicago, IL.
- "Tuning in to student voices: assessment and the Perry scheme of intellectual and ethical development." Workshop for the American Association for Higher Education national conference, March, 1991, Washington, D.C.
- "Tuning in to student voices: assessment and the Perry scheme of intellectual and ethical development." Workshop for the Fifth American Association for Higher Education Assessment Forum, June, 1990, Washington, D.C.
- "Beyond content: re-framing questions of student learning." Workshop for the Student Outcomes Research Institute, June, 1990, Olympia, Washington.
- "Developing an Objective Measure of the Perry Scheme: Pitfalls & Progress, American College Personnel Association (ACPA), March, 1988, Miami, FL
- "The Impact of Liberal Arts on Student Development Outcomes," Southern Association of College Student Affairs (SACSA), November, 1987 {with Pat Murrell}
- "A Program of Student Involvement in Learning," Southern Association of College Student Affairs (SACSA), November, 1986 {with Sue Saunders and Phyllis Mable}
- Rater Training Workshop for the Perry Scheme, October, 1986 [for Evergreen State College and the Washington Center for Improving Undergraduate Education]
- "The Confluence of Cognitive Stage and Style: The Perry Scheme and the MBTI," Association of Psychological Type-Southeast convention, October, 1986 {with Gina Graham from the Memphis State Center for the Study of Higher Education}
- "A Developmental Approach to Student Activities and Involvement," American College Unions-International regional workshop, Charlottesville, VA, October, 1986

- "Fostering an Institutional Commitment to Student Development: Can Territories Be Transcended?" {with Longwood College Project team}
- "Doing **I.T.**: Involvement & Learning Through Student 'Activities'," (sponsored by Commission IV) {with MaryKaye Benton, Pat King, & Kathe Taylor}
- "Measuring Cognitive Development: Current Issues"
- "Understanding the Perry Scheme through Rater Training" (all-day pre-conference workshop) {with Kathe Taylor}
- [four previous entries: American College Personnel Association annual convention, April, 1986]
- "Involving Students in Their Education: One Path to Excellence," Southern Association for College Student Affairs (SACSA) convention, Nashville, November, 1985
- "Are Students Really Committed to Competence?" Presentation to the Competence & Commitment: Educating for Abilities that Last conference, Memphis, TN, July, 1985
- "Differences in Counseling and Advising Men and Women," at the CAEL Counseling and Advising Adult Learners conference, Richmond, VA, April, 1985 {with Meredith Strohm}
- "Fostering Student Involvement: A Developmental Approach," NASPA drive-in workshop, Charlottesville, VA, April, 1985 {with Longwood Involvement Project team}
- "Discussing Developmental Outcomes with Freshmen," Freshman Year Experience conference, February, 1985 {with Longwood Project team}
- "Assessing Student Development," at the Implementing Student Development conference, Longwood College, June, 1984
- "The **Measure of Intellectual Development**: A Review and Update" {with Peggy Fitch, Lee Knefelkamp, and Kathe Taylor}   &
- "Integrating the Myers-Briggs Type Indicator into a Career Course"{with Wendy Whittemore}, ACPA convention, March, 1984
- "Bridging Academic and Student Affairs," Virginia College Personnel Association conference, February, 1984 {with Kathe Taylor}
- "Using Developmental Theory in Faculty Consultation" {with Peggy Fitch, Lee Knefelkamp, and Kathe Taylor}
- "Encouraging Students to Plan Ahead in the Area of Careers" {with Anna Beth Payne and Wendy Settle} [two previous entries: American College Personnel Association, March, 1982]
- "Using Developmental Theory in the Classroom", all-day workshop at the American Association for Higher Education convention, April, 1982 {with Peggy Fitch, Lee Knefelkamp, and Kathe Taylor}
- "A Faculty Consultation Model," The Perry Conference, St. Paul, MN, July, 1981 {with Peggy Fitch, Lee Knefelkamp, and Kathe Taylor}
- "More Than a Place to Park"(sponsored by Commission XVII), American College Personnel Association convention, April, 1981
- "Residence Hall Staff Development Efforts"(sponsored by Commission III, American College Personnel Association convention, April, 1980 (Co-editor/author of staff development publication for Com. III)

APPENDIX 9

CATEGORIES OF EPISTEMOLOGICAL PRIORITIES
AND COMPETENCIES ADDRESSED

Table A5. Epistemological priorities and competencies addressed according to participant

First Name	Categories Addressed	Gender	Perry Position Rating
Ann	1a, 2b, 2d	F	334
Ruth		F	333(4)
Barb		F	444
Martha	1a	F	233
Monica	1b, 2c, 3a	F	334
Bill	1a, 2c, 3c	M	445
Susan	3c	F	333
Amber	2d, 3b, 3c	F	233
Mellissa	3c,	F	333 (4)
Bruce		M	233
Bob	2c, 2d	M	333 (4)
Christy	2a, 3a	F	344
Mark	1a	M	334
Timothy	2a,3c	M	334
Fred	2a,	M	233
Amy	1a, 3a, 3b, 3c	F	344
Todd	1a, 3a, 3b, 3d	M	333 (4)
Tony	1b, 2a	M	334
Victoria		F	233
Emily	1b, 3c	F	333
Alice	1a	F	233
Larry	1a, 1b, 2a	M	233
Michelle	1a, 1b	F	334
Zayle	1a, 3b	M	344
Cynthia	1b, 3a	F	334
Blake	2c, 3c	M	334
Samantha	1a, 3b, 3c	F	334
Jennifer		F	344
Vicky	1b,3c	F	333 (4)
Heather	1a,3c	F	333
Tiffany		F	334

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Cannon, Bruce. "Epistemological Development in Pre-Ministry Undergraduates Attending Confessional Christian Liberal Arts Colleges or Universities." Ed.D. thesis, The Southern Baptist Theological Seminary, 2015.

Clarkeburn, Henrikka M., J. Roger Downie, Craig Gray, and Robert G. S. Mathew. "Measuring Ethical Development in Life Sciences Students: A Study using Perry's Developmental Model." *Studies in Higher Education* 28, no. 4 (2003): 443-56.

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ABSTRACT

COMPARING EPISTEMOLOGICAL DEVELOPMENT AMONG
PRE-MINISTRY UNDERGRADUATES ATTENDING
CONFESSIONAL VERSUS NON-CONFESSIONAL
LIBERAL ARTS COLLEGES OR UNIVERSITIES

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The Southern Baptist Theological Seminary, 2017
Chair: Dr. John David Trentham

Most institutions of higher education within North America originated as
Christian Institutions, with the purpose of preparing students to work in vocational
Christian ministry. During the nineteenth and twentieth century, due to secularization
and the enlightenment movement, most of these same colleges and universities have
transitioned away from their original Christian mission and biblical values.

Liberal arts colleges that remain true to biblical values and a commitment to a
Christian mission are considered confessional institutions. Liberal arts colleges that no
longer remain true to biblical values and do not hold to a Christian mission and value
system are considered non-confessional. Today, there exists only a small subset of North
American colleges that would be considered confessional.

This qualitative research study explores the variance of epistemological
development in pre-ministry students attending confessional Christian liberal arts
colleges or universities versus pre-ministry students attending non-confessional Christian
liberal arts college and universities, using the Perry Scheme as the theoretical lens.

This research supplements a previous study conducted in 2012 by John David
Trentham. Trentham's original research sought to examine epistemological development
for pre-ministry students attending Bible colleges, confessional Christian liberal arts

colleges and universities, or secular universities. This new study seeks to add to the

original body of research by also examining pre-ministry students attending non-

confessional institutions.

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