

Student and Faculty Perceptions of a University Faith Mission in Courses
Using Classroom, Distance, or Hybrid Instructional Delivery Modes

by
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Approval Page

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Abstract

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This applied research project took place at a faith-based university in the Midwest. The purpose of the study was to determine to what degree students and faculty who participated in face-to-face instruction, distance education, or hybrid modes of instruction perceived that the subject university's mission was integrated into course content and instruction and to determine whether the mission objectives were applied equally to the three types of courses, as required by the regional accrediting body. Survey instruments were used to quantify participants' perceptions. The researcher obtained data from two surveys and analyzed the statistical results to respond to each of these four research questions:

1. Did students perceive that the university mission was equally integrated into course content and instruction regardless of the delivery mode (100% distance, hybrid, and face to face)?
2. Was the university mission perceived equivalently among traditional and nontraditional students?
3. Was the university mission perceived equivalently among full-time and adjunct faculty?
4. Did the mission component of the end-of-course survey reflect the same degree of mission achievement as the mission survey?

Equivalency theory formed the basis for comparing the perceptions of three groups of students and faculty--those engaged in classroom, distance education, and hybrid courses--concerning whether mission objectives were found in each of the three types of courses. Using equivalency theory, the researcher categorized mission behaviors found in the survey data into three equivalency categories: classroom, social, and practical activities. The researcher also analyzed the survey data to see how the dependent variable of mission perceptions of the participants was related to the independent variables. The independent variables were faculty status (full time or adjunct), student status (traditional or nontraditional), and delivery format (100% distance education, face-to-face instruction, or hybrid combination).

The primary focus of this study was measuring the degree of equivalency in social interaction as represented by mission perception. When applied to equivalency theory, these data indicated that the subject university achieved a high degree of equivalency, as represented by mission perception among its faculty and students in all courses regardless of delivery formats.

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Chapter 1: Introduction

Over the years, many studies have compared the achievement of distance education (DE) outcomes with those of traditional face-to-face (FTF) instruction. However, few have analyzed the achievement of the university mission by comparing distance and traditional classroom education. The purpose of the study was to determine to what degree students and faculty who participated in FTF, distance, or hybrid modes of instruction perceived that the subject university's mission was integrated into course content and instruction and to determine whether the mission objectives were applied equally to the three types of courses: (a) 100% of the program conducted as FTF, (b) a hybrid program taught using some combination of distance and classroom instruction, and (c) 100% of the program conducted in a distance mode. Subjects were engaged in one of these three delivery formats as either a part-time or full-time student or faculty member in any discipline. In this chapter, the researcher described the background and reason for the study, the research setting, the researcher's role, the problem addressed by the specific research questions, the framework guiding the study, the definition of terms associated with the study, and the research variables.

Background, Mission, and Mission-Related Courses

The university was founded to provide a liberal arts learning environment from the vantage point of a biblical worldview. The university founders believed that understanding the universe begins with knowing its creator personally. Their belief was based on Proverbs 1:7: "The fear of the Lord is the beginning of knowledge, but fools despise wisdom and discipline" (New International Version). Founded in the early 1900s, the institution offered the denomination's full spectrum of educational offerings from grade school through baccalaureate education. The catalog and marketing materials of the

academic setting provided the university mission and an explanation of the philosophical relationship of its denominational beliefs as expressed in and through education. The faith-based mission was formed in 1915, the same year that it first appeared in the university catalog:

[The subject] University, a denominational university in the Wesleyan tradition, exists to provide a university-level liberal arts Education With a Christian Purpose. Our mission is to provide high-quality academic instruction for the purpose of personal development, career and professional readiness, and the preparation of individuals for lives of service to God and humanity. We seek the strongest scholarship and the deepest piety, knowing that they are thoroughly compatible [and] a Christian environment . . . where not only knowledge but character is sought.

Variations in the requirements for religion courses and chapel participation are required for each educational level and student enrollment status. Full-time traditional students must satisfactorily complete 12 semester hours of religion courses and attend chapel two times per week. Religion content is covered in four 3-credit-hour courses. Ideally, students complete one religion course per year. The first required course addresses biblical ethics for analyzing and dealing with life issues and assists with meeting the spiritual growth needs of the freshmen student. The sophomore religion course primarily addresses Old Testament concepts and lessons, and the junior religion course addresses New Testament concepts and lessons. The senior course addresses denominational comparisons and career ethics.

Students who transfer 45 or more credit hours (including those enrolled in a baccalaureate completion track) are required to complete 6 credit hours of religion courses (compared to the 12 hours for native students). Guidelines for chapel attendance for part-time students vary according to the number of credit hours, employment hours, and family status. Decisions to excuse students from chapel attendance are made on an

individual basis. Students who carry a full load (12 or more credit hours) and work full time may petition to be excused from attending chapels. Chapel attendance is not required of the baccalaureate completion or graduate student.

Upon application to enroll, students sign a promise to adhere to the university's mission and to attitudes and behaviors reflective of the mission. In addition, specific behaviors that students agree to avoid include alcohol, nonprescription mind-altering drugs, tobacco, swearing and coarse language, and behavior otherwise unbecoming to a Christian. Worship attendance and Bible study are encouraged.

A variety of campus activities expose the student to the campus mission. The Web site is unapologetically Christian and has Internet Bible links, a posting area for prayer requests, a scripture meditation, podcasts of the FTF chapel services, a weekly devotional, the campus Christian music station, and a link to the chaplain. Symbols used in the Web page design include tongues of flame (purification of the heart through the infilling of the Holy Spirit), a red cross (the blood of Jesus by which believers have power over sin, and the sacrifice of Christ in order to lend salvation, mercy, and grace to the believer), a Bible (the living word of God and unchanging truth), and a fish (evangelism). As mission support, two full-time chaplains are employed at the university. One chaplain is devoted to ministering to the students, faculty, and staff on the undergraduate level, and one minister primarily to those in the graduate school.

Achieving the intended mission among DE students and faculty may require more than symbols and access to the chaplain. Logistically, the DE student and faculty have less interaction with the university setting than the traditional student and faculty who are immersed in the daily campus environment. Lao (2002) recognized the potential for dilution of mission understanding and commitment among students who pursue DE

programs. As the university continues to expand its DE offerings, some have expressed concern, whereas others understand that students are demanding DE delivery. The bursar, marketing, registrar, and admissions personnel have acknowledged the changing student demographics and the increasing student population.

The university has used an increasing number of adjunct professors for facilitating baccalaureate completion and graduate didactic instruction, especially for courses taught at a distance. Equivalent program outcomes between varying tracks within a curriculum are essential criteria for accreditation of distance programs and traditional programs. The National Council for Accreditation of Teacher Education (2006b) has scrutinized the institutional mission statement to gauge the achievement of the accreditation standards. The university president conveyed the necessity for the DE programs to make clear the university's mission to students, to the denominational membership, and the community of interest, with the intent of fulfilling educational objectives and lending credibility to the online programs.

As an educational outcome, the university mission is to be embraced and lived out in each graduate. Eight regional and nine national DE accrediting bodies jointly adopted seven focus areas to evaluate institutions of higher education for approval of distance learning initiatives. According to the Council for Higher Education Accreditation (2002), the areas generally address these seven factors:

1. Fit of DE with the institutional mission.
2. Suitability of the institutional structure to offer DE.
3. Adequacy of the institutional finances and resources to sustain DE.
4. Appropriateness of curricular and instructional design for delivering DE.
5. Availability of faculty, resources, facilities, and equipment for competent

delivery of DE.

6. Adequacy of student support processes including counseling, advising, equipment, facilities, and instructional materials to complete their distance learning.

7. Adequacy of the program evaluation plan and the findings of student achievements therein.

Exposure to the unique university mission and measuring perceptions regarding mission are ongoing goals and are vital to ensuring that the mission is embraced as an outcome.

Setting

The study setting is a church-sponsored liberal arts university located on 300 acres. The 4-year baccalaureate degree offers over 120 areas of study. The 2-year associate degree, baccalaureate completion program, a master's degree, and a doctorate offer various course components online. The faculty population is composed of 156 full-time and approximately 120 adjunct members. The business administration, education, and nursing programs were experiencing strong growth in graduate and continuing studies. A school dean related that the university administrators developed a goal to expand several programs to better meet the DE offerings demanded by alumni.

The need for flexibility in course offerings was overdue and was manifested in several ways. On-campus undergraduate and graduate enrollment was burgeoning, stretching the limits of classroom space. The majority of courses offered to the traditional full-time, resident student were FTF, with few distance courses offered. Various components of the baccalaureate completion program and graduate and continuing study programs were offered via distance or were being developed for hybrid delivery. The registrar noted that the baccalaureate and graduate tracks offered via the DE were experiencing the strongest growth and were helping the university meet the goal of 5,000

students. According to the graduate school dean, students who were enrolled as well as those who dropped from graduate courses consistently requested online courses. The bursar noted the financial impact of the undergraduate students' attrition rate of approximately 19% and a baccalaureate completion and graduate attrition rate of approximately 25%.

Enrollment in the baccalaureate completion track and master program is by cohort. When a program attracts 10-20 applicants, a start date is established. However, by the time a cohort is large enough, many applicants have opted for other arrangements. A 3-year trend of decreasing graduate and continuing studies enrollment was reversed, and enrollment was increasing as the campus made the move toward offering hybrid courses. The dean of the graduate school expressed concern about ensuring that the outcome objectives including institutional mission of distance courses were equivalent to those of FTF courses graduate.

For FTF courses in graduate and continuing studies, students attend one 4-hour evening class per week for 22 months. The hybrid course design includes an 8-hour FTF session at course startup. The entering cohort stays together in lockstep throughout the program. Courses are developed by full-time faculty. Outcomes and learning strategies are prescriptive for full-time and adjunct faculty to follow.

Focus of the Research Study

The focus of this study was on describing the degree of integration of the mission in the course content and instruction, as it was perceived by students and faculty engaged in each of the three types of courses--DE, hybrid, and FTF--and in various study areas. From 1999 to 2006, the perceptions of traditional FTF students concerning the presence of mission objectives in courses were measured using a mission survey. The 7 years of

data were used as the benchmark. The researcher compared the mean of the results of this student population to the mean of the results of the nontraditional students and similarly compared the mean of the results of the full-time faculty population with the mean of the results of the adjunct population. Data were mined in order to measure the degree of integration of the mission objectives into the courses in the various disciplines regardless of delivery formats, as perceived by faculty and students.

University Student

Enrollment figures used to establish the statistics for this study were from the Fall 2006 semester. For the 2006-2007 academic year, enrollment totaled 4,495. Full-time undergraduate and graduate students numbered 2,834. Full-time equivalent (FTE) students totaled 3,432 based on 12 undergraduate credit hours and 9 graduate credit hours, or a total of 51,500 credit hours. Of the 3,432 FTE students, 2,551 were traditional, 270 were nontraditional, and 611 were graduate students. Students enrolled in continuing study courses or graduate courses are categorized as nontraditional students. The retention rate for the 752 first-time freshmen from the previous year (now sophomores) was 73%. Transfer students totaled 262, with 149 enrolled as traditional and 113 as nontraditional students.

A total of 2,036 students were housed on campus and ranged from 17 to 23 years old. In addition, 1,025 students self-reported being of the religious denomination of the university. Of the 2,487 traditional students, 1,120 of them (45%) self-reported being of the religious denomination of the university. Of the resident population, 991 of them (49%) self-reported being of the religious denomination of the university. A total of 498 students were enrolled in the five undergraduate continuing studies programs and 1,510 students were in the 13 graduate programs. Of the student population, 2,921 of them

(65%) were female, and 1,574 of them (35%) were male. Nontraditional students ranged from 25 to 65 years old. Minority students, including Indian, Black, Hispanic, Asian, and nonresident aliens, numbered 687, or 15.3% of the student population.

University Faculty

The total number of faculty employed in any status in the 2006-2007 academic year was 535. Of those, 115 were full-time faculty members (42 female, 73 male), 7 of whom taught full time in the graduate school. Of the 420 adjuncts, 49 taught in the traditional programs, and 353 taught in the graduate school (221 female, 132 male). Moreover, 18 adjunct instructors privately taught applied music lessons on a regular basis (no gender breakdown available). The registrar noted that the university used an untold number of preceptors for nursing majors, education majors, social work majors, business majors, and other majors in practical experiences. Denominational membership of the faculty was 75% university denomination, 10% Catholic, 1% Lutheran, 2% Episcopalian, 3% Baptist, 5% Methodist, and 4% other denominations. Denominational breakdown of faculty who taught FTF or DE courses was unavailable.

In a study of teacher preparation at six universities, Compora (2003) asked, "How are DE course instructors selected?" (Current Trends in Distance Education: An Administrative Model section, ¶ 9) and found that professor selection for teaching online courses was a highly informal process. Compora concluded that instructors generally teach DE courses based on their willingness rather than their expertise and that most programs provided little or no faculty training.

At the subject university, a faculty member is hired for his or her desire to perpetuate the university mission as well as the ability to serve in a targeted capacity. The faculty salary at this private institution is modest in comparison to secular institutions of

higher education and is 98% funded through tuition, a point well understood and largely overlooked by faculty.

According to the graduate school dean, the university has historically recruited professors via referral through the religious denomination's academic network. Upon application, a faculty candidate first interviews with the department chair or program coordinator and the academic dean. A considerable portion and focus of the interviews revolve around the university mission and the candidates' agreement with the mission and their professional competency. The move towards DE has introduced an additional requisite skill set for conducting online education and conveying the university mission successfully. A newly hired professor who desires to teach online is required first to complete an online educator certification course, developed by university staff, that addresses how to express the institution's mission in DE courses. As shared by the president, the continued movement of the university towards DE is dependent on the integration of the mission into the courses and instruction. This research study was the first comparison of mission perceptions of students and faculty engaged in DE, hybrid, and FTF courses.

Research Questions

Four research questions guided the present study:

1. Did students perceive that the university mission was equally integrated into course content and instruction regardless of the delivery mode (100% distance, hybrid, and FTF)?
2. Was the university mission perceived equivalently among traditional and nontraditional students?
3. Was the university mission perceived equivalently among full-time and adjunct

faculty?

4. Did the mission component of the end-of-course survey reflect the same degree of mission achievement as the mission survey?

Statement of the Problem

Little was known about the transmission of the institutional values described within an institutional mission statement when the education was conducted via DE. For the student enrolled in a distance course, a number of factors may alter exposure to the mission within the campus environment and, thus, the perception of the mission. The baccalaureate completion and graduate tracks at the study setting have relied heavily on adjunct instructors who often teach the didactic component at off-site locations or online. The religious denomination mix of faculty teaching in the baccalaureate completion and graduate tracks was different from that of the traditional track because hiring practices vary from that of the traditional track. Some practicum courses rely on the use of preceptors. Hybrid education logistically limits the amount of student exposure to the university mission through interactions with full-time faculty within the campus environment. Students who select a distance program or course may do so purely for its delivery format rather than the institutional mission.

Sharron and Boettcher (1997) pointed out that the assumption of some is that students need to be immersed in FTF courses to adopt the intended values of their educational institution. A 10-year meta-analysis of DE research funded by the Mellon Foundation (Fisher, 2001) highlighted a distinct lack of research on DE and institutional quality. As a result, Fisher (2001) recommended these questions for further research:

Does the use of instructional technologies change the objectives or aims of courses, degree programs, or institutions? How can LACs [Liberal Arts Colleges] or HBCUs [Historically Black Colleges and Universities] maintain their special

niches in the world of online education? A related set of topics concerns accreditation and quality: How should distance-learning ventures be accredited? Can online courses really sustain quality equivalent to that of their traditional counterparts? How is it possible to measure competence, much less excellence, in online academic courses or programs? (p. 20)

The problem that the present study addressed was a possible lack of equivalent integration of the mission into the curriculum and instruction of courses and programs using FTF, DE and hybrid modes of delivery, including the baccalaureate completion and graduate courses. A criterion for accreditation was validating equivalency of courses and programs delivered in the distance and the FTF modes. Because this equivalency was not yet established, the researcher compared mission perceptions of faculty and students in various courses, programs, and disciplines. This study contributed to the detection of any mission disparities in FTF, hybrid, and DE courses and instruction.

Program accreditation requires evidence that program administrators are fully accountable for the university achieving its mission. For some time, plans for continued growth in the graduate school have included using the hybrid and distance modes of instruction. Administrators have embraced the need for accountability and credibility of distance instruction for accreditation purposes and for community interest. Establishing the degree of mission integration in distance curriculum was a preliminary step for validating and maintaining accountability processes. This study provided outcome data at the graduate and continuing studies level and initiated outcome accountability in achieving the university's mission and outcome validation of courses using the FTF, hybrid, and DE modes of instruction.

Rationale of the Study

Promulgating its unique mission is a key outcome of the university and may equal, if not overshadow, its quest for excellence in education. Accreditation planning for

the move to distance delivery requires accountability for achieving the same or better educational outcomes. Accountability demands thorough planning, controlling, organizing, and evaluating all processes and persons involved in the delivery of education and must flow from the stated mission of the institution.

Generalizations may be made from scrutinizing course and program outcomes and then may be used to revise policies and procedures. A course outcome at the subject university is for the faculty members to inculcate the university mission in their courses, as a measure of their performance. In the course evaluations, students rate whether a faculty member has clearly made the university's mission part of the course. However, a more comprehensive approach was necessary for isolating the cause and source of any alteration in student perception of the mission.

Through mission achievement a sense of unity and connectedness within the worldwide church is envisioned. Mission perpetuation may be measured through those exposed to the mission and the strength of their perception of and commitment to the mission. The unique university mission may be considered a seed that, if well planted, will grow and bear more mission fruit. Thus, the extent to which the mission is perceived and embraced by a faculty member or student is itself reflective of the mission's effect on the perception of the mission.

Undergraduate and baccalaureate completion students are exposed to the mission as they participate in the 6 to 12 credit hours of Bible courses in the classroom. Graduate students are exposed to the mission only through the design of the course objectives and outcomes as carried out by the faculty. An objective for each course is for the students to grow in their understanding of the mission and is a component of the graduate school end-of-course survey (see Appendix A). Evaluation of the instructor's promulgation of

the mission was a component of the course evaluation. To date, no attempt has been made to measure equivalency of mission within courses and instruction by comparing the perceptions of traditional and nontraditional students and faculty at the university. Course and program expansion to include the distance mode necessitated a study to determine whether mission was found in courses equivalently in all courses regardless of mode of delivery.

Theoretical Framework

A theoretical framework defines the research activities that may be used to produce specific outputs. Simonson (2004) defined the relationship between DE and equivalency theory as

institutionally based education where the learning group is separated and where telecommunications technologies are used for the sharing of learning experiences. This definition has prompted the development of "Equivalency Theory" [that] states that the more equivalent the learning experiences of distant students are to that of local students, the more equivalent will be the outcome of the learning experiences for all. (p. 2)

Anderson (2002) described an equivalency theorem that measures the substitution of "one form of interaction for another, based on cost and accessibility factors" (p. 4). Simonson, Schlossler, and Hanson (1999) advocated that the educator design and provide unequal, yet individualized, equivalent learning experiences for each student. This definition fits a distance delivery design.

Equivalency theory is a relatively new theory for comparing educational outcomes. It formed the basis for comparing the degree that mission was infused into the content and instruction of DE, hybrid, and FTF courses, as perceived by students and faculty. Equivalency theory addresses social interaction (student relationship with full-time and adjunct professors), multiple learning strategies (FTF versus hybrid or DE), and

outcome measures associated with DE and FTF education. The primary focus of this study was measuring the degree of equivalency in social interaction as represented by students' and faculty's perceptions of the mission objectives within the three types of courses.

The researcher was employed full time at the subject university, teaching in the traditional baccalaureate level and occasionally in the graduate level. As a faculty member, the researcher was fully committed to the university mission and the department vision for the future of online delivery of all baccalaureate completion and master's courses in the nursing program. Administrators were seriously concerned about preserving the mission as a priority that was more important than expansion. The researcher and fellow faculty members concurred with this concern. Because adhering to the mission was a mutual goal for the university's administrators and faculty and for the accrediting body, the researcher anticipated that the study results would contribute evidence for discovering the strength of commitment to the mission of the present campus population engaged in the FTF, DE, and hybrid modes of instruction.

Definition of Terms

Several terms are defined as used within this study.

Adjunct faculty refers to one who is hired one time or repeatedly to teach a FTF, DE, or hybrid course.

DE refers to all forms of media-driven education when instruction is accomplished asynchronously or synchronously. All 100% DE programs at the subject university require students to attend three 8-hour FTF sessions. The sessions provide classroom as well as social and practical application opportunities for students

Full-time faculty member refers to someone who is employed with benefits.

Hybrid refers to a blended course delivered by a variable percentage of FTF and

DE instruction.

Nontraditional students are those enrolled in continuing study and graduate courses. They reside off campus and are completing a baccalaureate or graduate degree in any delivery format--DE, hybrid, off-campus FTF, and on- and off-campus FTF--through the graduate school.

Traditional students are undergraduates who are enrolled full time and who are completing all of their course work in the FTF instructional mode. Most of them reside on campus. Most majors require an off-campus practicum experience in one or several courses; however, the vast majority of courses offered to the traditional student are FTF on campus, with only a few online courses available to the traditional student.

Summary

In chapter 1, the researcher presented the background and reason for the study, the research setting and the researcher's role, the research problem, the research questions, the framework guiding the study boundaries, and the definition of terms associated with the study. Using equivalency theory, this study compared and interpreted the degree of understanding of the mission perceived by faculty and students enrolled in DE, hybrid, and FTF instructional modes. The study's methodology and findings provided generalized results that other Christian institutions of higher education may use as a pattern.

Chapter 2: Review of Related Literature

Introduction

In this review of related literature, the researcher explored the background and use of equivalency theory. She also reviewed general factors and many overlapping themes that have had an impact on outcomes of DE. Literature describing variables and measures of the achievement of a university mission is presented.

Equivalency Theory

Simonson et al. (1999) described equivalency theory as students having

learning experiences designed and made available to them that are tailored for the environment and situation in which they find themselves. Thus, those developing DE systems should strive to provide appropriate learning experiences for students, no matter how they are linked to the resources or instruction they require. (p. 4)

Validating the achievement of equivalent learning experiences may be accomplished through the use of equivalent measures of learning (Anderson, 2002).

In 1996, Coldeway (as cited in Hunter, Deziel-Evans, & Marsh 2003) described learning quadrants as two logistical locations (FTF and DE) and two times (synchronous and asynchronous) for conducting distance learning that may be modified through technology. According to Coldeway, students may be physically located together or apart and may interact synchronously or asynchronously. Hybrid DE is any combination of FTF and DE instruction for either a course or program.

McDonald (2002) suggested that for the cost of implementation, an educator should expect more than equivalency from DE. Hellman (2003) cautioned educators about the need to ensure that no bias is injected into the evaluation of DE outcomes and its subsequent comparison to FTF outcomes. She recommended that institutions use attrition as a comparative measure of success of DE and FTF courses. Hellman also

cautioned that most of the studies comparing DE to FTF outcomes "are carried out by researchers who are far from disinterested, neutral observers. Typically, these findings are produced by researchers [who are] employed by the institution that is hoping to promote its online courses" (p. 10).

Casarotti, Filipponi, Pieti, and Sartori (2002) explained the mathematical summary of equivalency theory as the sum of the traditional classroom's learning experience, social interactions, and practical activities are equal to the sum of the distance learning classroom learning experience, social interactions, and practical activities. They explained the components of the mathematical equation to express outcome equivalency, $\Sigma(\text{TC}) e_i + e_l + e_m = \Sigma(\text{DL}) e_i + e_l + e_m$, in which

TC = traditional classroom, DL = distance learning, e_i = learning experiences, e_l = social interaction, e_m = practical activities. Each of these components was addressed in the classroom and practicum setting analysis. The equation indicates that it is the sum of the experiences which determine the equivalency. Thus, even if the detailed components could not be exactly the same, the final result remains equivalent. (p. 3)

Factors Affecting Outcomes of Distance Education

Broskoske (2003) described DE as being beneficial to education by providing agility to the delivery system. Kennedy (2002) found that teacher-learner communication in a distance health-studies course was 29% greater than in the classroom-based course. Areas of concern that were related to the delivery of DE included program design and initiation, faculty development, program mission, program accreditation and evaluation, learning strategies and the requisite technology, administrative issues, and student issues. Courses or programs composed of varying amounts of FTF and DE learning are known as hybrid or blended courses (Webb, 2006). The hybrid approach may blur the research outcome comparisons made between DE and FTF learning; however, according to

Lindberg (2004), students enrolled in a hybrid course are more likely to prefer online learning than those in the same course delivered FTF.

DeBourgh (2003) reported that the strongest correlation of student satisfaction and DE was as a result of good pedagogy in course presentation and conduct. DeBourgh found that students acclimated to the instructional reality whether they were enrolled in traditional campus-based FTF or technology-mediated DE instruction. Once students acclimated to the mode of instruction, their course evaluation ratings were more strongly affected by the quality and effectiveness of the instructor and instruction than by the mode of instruction.

Fusner (2002) determined that outcomes may be inadvertently and significantly altered from those intended by minor variations in policy, processes, and procedures. Research-driven standardization of such activities was found to improve outcome predictability and goal achievement. Notably, she found that organizational attributes may reinforce or detract from expected or intended outcomes, thus, the need for ongoing university assessment and evaluation. Fusner suggested that accounting for unique practices or approaches within a program or course requires focused outcomes evaluation to enable a researcher to analyze the impact of such practices.

Gabriel et al. (2002) conducted an institutional research study at Northern Virginia Community College. Their findings supported those of other researchers regarding the most common outcome measures used to determine equivalency of the DE and the FTF instruction. The most common measures were course grades, exam scores, matriculation rates, writing volume and quality, critical thinking skills, and student satisfaction and attitude surveys. Gabriel et al. determined that DE outcomes were the same except for DE writing quality and volume, student satisfaction, and critical thinking

skills that were found to be superior in FTF instruction.

Chien (1998) identified DE program evaluation models for effective programmatic development and change. The author surveyed institutional use of evaluation models for two key attributes: value and effectiveness of FTF ($n = 13$) and DE ($n = 5$) programs. For the evaluation model constructs and points, the researcher identified 8 value elements and 14 effectiveness elements as effective measures of program quality and effectiveness, respectively. The 8 program quality indicators were goals attainment, comparisons of learning outcomes, evaluations of special events, judgments by the community of interest, customer evaluations, customer values, quality of leadership decisions, and evaluations of teaching delivery. The 14 effectiveness elements for evaluation were objectives, cause and effectiveness, data, decision making, evaluation, clients, inputs, outputs, judgments, organizational renewal, program improvement, personal identification, program delivery, and cost effectiveness. Chien emphasized that a clear plan for evaluation was necessary to achieve the greatest understanding of all aspects of program delivery including both weaknesses and dynamics.

In developing standards for evaluating DE programs, Ruhe and Zumbo (2008) applied the principles of quality DE programming, student-faculty interaction, and effective teaching and learning. Cartwright and Menkens (2002) determined that program planners typically do not assume that prior institutional experience with DE facilitates a smooth transition to new delivery methods. The authors recommended a formative multidimensional approach to program evaluation to gain an understanding of the DE student experience.

Fullerton and Ingle (2003) found that creativity in delivering a DE program

helped students reach the goals of acquiring core knowledge, critical thinking, and competency in the performance of practicum skills. Evidence supported their conclusion that technology-enhanced teaching is equivalent in student learning effectiveness when compared to traditional methods. Fullerton and Ingle also described a number of models for conducting practicum skill evaluation, providing feedback, and promoting socialization of students engaged in distance instruction.

Spector (2006) conducted a study on the effectiveness of interactive learning strategies in distance courses and concluded that students adjusted positively to distance technologies and became actively involved in creating supportive colearning relationships. Daohui, Edwards, and Cragg (2002) noted that DE was helpful in building knowledge and skills of Chinese students. In the study, 93.4% of the faculty found no difference in the quality of distance teaching and classroom teaching, and 89.9% of all who were investigated expressed support for DE. Lastly, Daohui et al. specifically pointed out the challenge of accurately transmitting smart board sound, image, and writing via DE. Smith-Stone and Willer (2003) recommended continual reassessment of technology capabilities and planning for its expanded use.

Soller (2001) applied the collaborative learning model in DE to social interaction and multiple learning strategies. Berge and Muilenberg (2001) conducted a survey with 1,276 students concerning barriers to distance learners in higher education. Consideration was given for each of five stages of institutional development in the move to offer courses in the distance mode. The factor for social interactions and quality concerns was consistently ranked as average for all learning stages. Student course evaluation comments addressed distance learner isolation; discomfort with the use of active student-centered and collaborative learning strategies; and concern about program quality, testing, and

outcomes assessment.

Studies in DE learning outcomes primarily focused on fulfilling cognitive objectives. Gabriel et al. (2002) conducted a meta-analysis of learning outcome studies comparing distance delivery outcomes to those of traditional delivery outcomes for the purpose of decision making for mission expansion. They cited findings from numerous studies and concluded, "The learning outcomes of students in DE were found to be comparable (and in some cases better) to those in traditional education" (p. 26). Greer (2002) highlighted the financial and technological limitations and barriers to providing DE students with an electronic library of sufficient size to meet their voracious learning needs.

Lao (2002) concluded that instructor and student attitudes, perceptions, and preferences regarding all aspects of DE must be determined and addressed. Defining methods, processes, and policies to ensure quality outcomes for distance learners is a critical step in developing an equivalent distant curriculum in any discipline. Blazey (1995) recommended that studies be conducted that connect the achievement of outcomes to quality of practice. In his study on the university's religious mission within the community, Rogers (2005) studied the uncertainty that builds among the constituency when conflicting cultural mores in the institutional mission and culture go unexplained.

Faculty Issues in Distance Education

One aim of graduate education is to mold the mind of the individuals who will, in turn, oversee the profession. Ensuring teaching excellence of graduate faculty is the minimum standard that institutions of higher education must maintain and constitutes the basis for future professional credibility (Blazey, 1995). Compora (2003) found that the selection of professors to teach online courses was a highly informal process at the six

universities responding to the seventh study question, "How are distance education course-instructors selected?" (Current Trends in Distance Education: An Administrative Model section, ¶ 9). Compora concluded that instructors generally teach DE courses based on their willingness to do so rather than their expertise and that most programs provide little or no training of online instructors.

Nursing programs have been filling vacant faculty positions with adjunct faculty as the shortage has been building. Thus, mentoring these adjunct professors through an orientation and mentoring program has taken on increased significance (Peters & Boylston, 2006). The leaders of the Association of American Colleges of Nursing (2003) have recommended that a formal orientation be given to all new nursing faculty members and that ongoing training be provided to help meet the basic need for teaching skills and professional development, policy and procedure updates, course and curriculum revisions, and recognition and avoidance of ethical and legal issues.

According to Peters and Boylston (2006), three broad areas are addressed when planning for orienting and mentoring new faculty: (a) university factors such as mission, philosophy, committee membership, and advising; (b) teaching management skills including technology, textbook acquisition, syllabi development, test bank building and analysis; (c) pedagogy including developing a personal teaching style; and (d) scholarship and career development including authoring research and other publications. An assigned mentor provides the support a new faculty member needs for fostering self-propagated continuous growth.

Van Wyk (2002) found that increased interpersonal contact between the lecturer and student improves the development of student critical thinking skills. Critical thinking development was found to be hampered by geographical distance between the lecturers

and the students. Careful planning of contact opportunities between the lecturers and students remedied the problem. Van Wyk determined that development of critical thinking skills through DE and learning was possible through the commitment of both the lecturers and the students. Kriger (2001) conducted a descriptive study on the current practices of 200 DE professors and on emerging trends. A helpful compilation of 14 best practices and standards of quality DE resulted.

Al-Saleh (2002) explored student-teacher relationships and perceptions of students in FTF and DE classrooms. When courses were compared, the results showed no significant differences in the learning outcomes of FTF and distance instruction, and showed equally positive course evaluations. Jackson and Sandiford (2003) found an increase in student retention among DE students who could not, for a variety of reasons, go to FTF classes. According to a report of the U.S. Department of Labor (2004), a high school graduate was likely to be computer literate and enjoy learning by computer. In addition, Cragg, Edwards, Yue, Xin, and Hui (2003) conducted a survey of registered nurses and found that the favorite source of ongoing professional knowledge was the computer, Internet access, and distance learning.

Johnson (2004) reported that Web-based instruction enhanced student learning when the students felt connected with faculty and other students. Web-based instruction was found to be increasingly common in undergraduate baccalaureate degree completion and graduate programs. Johnson found that six strategies help distance students to feel connected in their learning:

- 1) providing a welcoming learning environment; 2) using interactive weekly discussion boards; 3) creating a supportive, stimulating faculty presence; 4) providing expert use of both critique and praise; 5) providing anonymous forums for student suggestions and complaints; and 6) communicating interest in and

respect for each student as both a person and a learner. (Concept: Connectedness section, ¶ 2)

Lopez (2001) reported that the students' perceived that the mission of Loma Linda University was met when faculty fulfilled their expectations for teaching ability and displayed Christian behavior. Conversely, when students' expectations of faculty performance and behaviors were not met, a negative gap was perceived in institutional mission fulfillment. Lopez found the perceptions regarding faculty behaviors and the relationship with institutional mission fulfillment were consistent with those of alumni.

Steiner (2001) described the challenges faced in educating advanced practice nurses, such as family nurse practitioners, who fulfilled the numerous required clinical practicum hours in rural areas. Challenges included competition among programs for clinical sites and how to best use online learning to prepare and socialize students adequately. Study findings indicated that classroom interaction between faculty and students was valued for professional role socialization. The use of online learning in family nurse practitioner programs was recommended when cautious respect was given to infrastructure issues and to faculty and student concerns.

Student Issues in Distance Education

Warnick (2001) queried a random sample of 20,000 congregants who were 18 years or older and members of the Church of Jesus Christ, Latter Day Saints regarding their intention to pursue further education via DE. Warnick categorized 2,099 respondents according to psychographic characteristics. Descriptive categories were named through multivariate models of significant characteristics; thus, respondents appeared in more than one category.

Warnick (2001) reported groups as a percentage of the respondents and gave them

characteristic names. The college degree respondents with no intention of returning to school were dubbed School's Out (60%). Distance Doubters (52%) lacked confidence in their ability to succeed in a DE program or were unfamiliar with how to participate in DE. Uncertains (16%) were unsure about whether they would pursue further education at all. The group named Been There, Done That (14%) had already attained all the education they needed. Recreationals (12%) would enroll for personal enrichment. Careerists (13%) planned a likely return to school in the future in order to enhance their career. Rusty students (14%) desired no further education beyond high school. Technophiles (10%) had completed a course via DE and would do so again. Pertinent to the mission aspect of this study were active church members, dubbed Loyalists (39%) who desired further education, likely from a church-sponsored school via DE. The Left Behinds (10%) wanted more education but believed that they had poor computer skills. The Lost Along the Way (16%) were those who started, then stopped, but desired to return (Warnick, 2001).

Moore (1993) conceptualized the opposite of social presence as transactional distance by addressing logistical space and relationships. Coldeway (as cited in Simonson, 1999) provided a schematic of same or different spatial location and time of instruction known as Coldeway's quadrants that indicated instructional method options. Rourke, Anderson, Garrison, and Archer (1999) recommended that new research tools and methods be developed in order to design a model for instruction to perfect the DE social learning environment. The model of community of inquiry, designed by Garrison (as cited in Garrison, Anderson, & Archer, 2000), expanded its original description and application. The model has three overlapping rings and depicts three core components making up the learning community or environment: cognitive presence, teaching

presence, and social presence. A valuable result of this qualitative study, based on Garrison's model, was to determine 12 indicators of the quality of the learning in the online environment and to create a consistent coding system. The indicators provided consistent labels for describing the learning achieved, thus, improving interrater reliability during analysis. The model easily fits with the equivalency theory of learning.

Riley, Austin, Holt, Searles, and Darling (2004) found that, although medical students who enrolled in a university-based cardiovascular perfusion program benefited from the use of Internet-based virtual classroom instruction, they still preferred traditional FTF instruction. Rovai (2002) reported lower retention rates in distance programs and related this finding to a reduced sense of community. Rovai recommended creating and strengthening the online learner community through cultivating a sense of spirit, trust, and collegial interaction, while focusing on the common expectations of learning. Suggestions for strengthening the online community included (a) decreased transactional distance by including all members in regular graded discussion participation; (b) increased social presence using strategies such as sharing personal stories, pictures, and emotions and through promptness with e-mails; (c) increased social equality by validating each student's contribution as worthy during online discussions and addressing aggressive e-tone in private; (d) increased online small group activities such as debates, collaborative learning projects, and student-led discussions; (e) increased facilitation of group tasks and projects to encourage them in their group endeavor and functions; (f) adjusted teaching style according to student learning style and self-direction; and (g) ideal limited group (community) size of 8 to 30.

Measuring Mission Infusion Into Distance Courses and Instruction

According to Smith (2002), the gestalt theory deals with how tangible objects are

perceived and is typically described as the whole is greater than the sum of its parts.

Gestalt theory (Wertheimer, 1924/1944) is primarily based on the spatial relationship of objects and a person's perception of relevance among the objects. A theory of perception related to this study was described by Bruner (as cited in Smith, 2002) as a proponent of a constructivist approach to education. Bruner maintained that students' perception and interpretation of information is influenced by their past experiences and current expectations.

Shimabukuro (2000) described the rigorous challenge of ensuring that all levels of Catholic education curriculum strongly reflect the Catholic mission. Merena (2006) highlighted the importance of structuring new DE endeavors around the institutional mission. Fisher (2001) commented on the findings of a meta-analysis of research conducted over a 10-year period:

A connected theme is sustaining educational missions and values in online education. Instruction on the Internet may provide efficient access to expert knowledge in the arts and sciences. It is less clearly a suitable medium for fostering critical thinking, promoting receptivity to new ideas, stimulating exploration, discovery, and creation, or encouraging values that are most effectively communicated in person, such as respect for other people's views, responsibility, leadership, and service to society. These are the special charges of residential schools, and numerous respondents doubted that they could be fully discharged in online environments. As a result, many LACs [liberal arts colleges] do not anticipate dedicating significant resources to the DE format, and several other selective institutions are waiting to see how others fare in their online projects. (p. 11)

McDonald (2002) hypothesized that DE is perhaps the best delivery format to cultivate the value of lifelong learning in the student. Barker, Wendell, and Richardson (1999) stressed that the rights of online learners must be the same as those of FTF learners. Therefore, the institution must hold itself accountable to integrate the institution's mission into online instruction just as it does for FTF instruction. Barker et

al. found that adherence to this standard promotes trust and successful institutional growth.

Matthias (2002) researched a concern among Windward Island educational administrators that the institutional mission might be lost without FTF education. Matthias recommended that educators establish a reliable process for collecting, studying, and reporting evaluation data and that ministerial personnel be trained to use that process.

Morat (2004) used the Higher Education Data Sharing survey at a Midwestern university to compare the ethics and values development of sorority and fraternity members to that of nonmembers. The 390 participants in the study indicated no significant differences. However, membership in a sorority or fraternity was associated with an increase in social engagement and a sense of connection to a supportive and inclusive community.

Vladinova, Petrov and Lliev (2003) noted that an evaluation of student outcomes must involve every aspect of university policy and processes to ensure that adequate technology and support remain in place for the student and professor. Astin et al. (2003) conducted a study funded by the American Association for Higher Education as an initiative to improve postsecondary education. Nine global principles emerged from their investigation and were recommended for integration into the evaluation of distance curriculum and course design:

1. "The assessment of student learning begins with educational values" (p. 1).
2. "Assessment is most effective when it reflects an understanding of learning as multidimensional, integrated, and revealed in performance over time" (p. 1).
3. "Assessment works best when the programs it seeks to improve have clear, explicitly stated purposes" (p. 1).

4. "Assessment requires equal attention to outcomes and the experiences that lead to those outcomes" (p. 1).
5. "Assessment works best when it is ongoing, not episodic" (p. 2).
6. "Assessment fosters wider improvement when representatives from across the educational community are involved" (p. 2).
7. "Assessment makes a difference when it begins with issues of use and illuminates questions that people really care about" (p. 2).
8. "Assessment is most likely to lead to improvement when it is part of a larger set of conditions that promote change." (p. 2)
9. "Through assessment, educators meet responsibilities to students and to the public." (p. 3)

Beers (1999) used the matched-pair *t* test to detect faith development between two groups of students. One group completed the faith-building course in the FTF mode and another in the DE mode. The pre- and postsurvey responses of the two groups of students demonstrated that the DE mode of delivery generated the greater faith development.

Lopez (2001) used triangulated interpretation in a qualitative study framed by grounded theory to compare and analyze the mission objectives at Loma Linda University (Seventh-Day Adventist) against Christian world views. Areas explored were Christian and traditional religious worldviews, wholeness, diversity, community service, faculty, negative expectations, caring faculty, and service. Lopez conducted interviews with 14 of 51 students in occupational therapy in the School of Health Sciences, reviewed numerous university publications, and reviewed faculty activities to measure the lived mission of ministry and healing "to make man whole" (p. 49).

A key finding was that students who selected the university specifically for its

mission were deeply disappointed when perception fell short of expectation. Lopez (2001) further noted that (a) each campus contact; (b) each entity such as meals, rules, appearance, and faculty lifestyle; or (c) each event had an impact on each student's view and expectations. In fact, the students held the campus accountable for meeting or exceeding expectations. As members of the campus community, the students held that kinship or belongingness was their strongest expectation. When any expectation was not met, kinship was threatened. Student recommendations for strengthening the mission were primarily increasing opportunities for social interaction such as Bible studies, retreats, class projects, and social mixers for various majors.

Neihoff (1995) surveyed Catholic university employees to determine the relationship between job satisfaction, organizational commitment, and institutional mission. Variables included age, academic degree, gender, job classification, marital status, religious affiliation, and number of years of employment at the university. Pearson's *r*-correlation coefficient analysis was used to reveal small correlations between the congruence of job satisfaction, organizational commitment, and mission value. The Kruskal-Wallis test was used to isolate the demographic impact, and the Mann-Whitney U test was used for analysis of demographic combinations. The demographics most related to mission congruence were age, gender, job classification, and religious affiliation.

Summary

In chapter 2, the researcher presented research findings specific to measuring and comparing the equivalency of educational and mission outcomes of DE and FTF instruction. An established framework of comparative reference points for measurement included synchronous to asynchronous quadrants, developed by Coldeway (as cited in

Hunter et al., 2003), and DE to FTF modes of instruction. Comparisons of delivery modes should address classroom (cognitive), social, and practical outcomes (Casarotti et al., 2002). A careful analysis of the comparative results should address delivery cost (Greer, 2002; McDonald, 2002) and avoid bias (Hellman, 2003).

Outcomes of hybrid programs may be blurred by mixing delivery methods. Additionally, student preferences for either DE or FTF may skew responses (Lindberg, 2004), as may the student's comfort with the delivery format and the quality of the course design and instruction (DeBourgh, 2003). Quality of delivery may be affected by university policy, processes, and procedures, necessitating frequent quality improvement initiatives (Fusner, 2002).

Common outcome measures are course grades, exam scores, matriculation rates, writing volume, writing quality, critical thinking skills (found to be superior in DE), student satisfaction, and attitude surveys (Gabriel et al., 2002; Lao, 2002). A plan for thoroughly comparing overall program quality and effectiveness indicators should be conducted routinely (Chien, 1998) because the technology (Smith-Stone & Willer, 2003), learning strategies and resources (Soller, 2001), policies, processes, and methods for implementing FTF and DE vary greatly (Berge & Muilenberg, 2001; Cartwright & Menkens, 2002).

Results of comparative outcome studies for DE and FTF instruction included equivalency in technologically enhanced teaching (Fullerton & Ingle, 2003; Vladinova et al., 2003), learning through interactive strategies (Spector, 2006), and students' levels of development of knowledge and skills (Daohui et al., 2002). The same or better learning outcomes were noted by Gabriel et al. (2002). Rogers (2005) cautioned that the religious mission needs to be conveyed and perceived similarly when designing and implementing a new initiative.

Training of online instructors should address expertise as strongly as does training of those who teach FTF (Compura, 2003), should provide formal orientation and ongoing development, and should provide extensive mentoring (Peters & Boylston, 2006).

Extensive faculty interaction in DE is essential for the development of critical thinking skills (Van Wyk, 2002) and professional perceptions and attitudes (Al-Saleh, 2002).

Close faculty-student relationships also help to internalize the university mission (Beers, 1999; Lopez, 2001), to enhance learning (Johnson, 2002) and skill development (Steiner, 2001), and to retain students (Jackson & Sandiford, 2003).

Students have described varying reasons for selecting FTF over DE (Warnick, 2001) including the lack of social presence (Garrison et al., 2000; Moore, 1993; Morat, 2004; Rourke et al., 1999; Rovai, 2002), hindrances to time or location (Coldeway, as cited in Hunter et al., 2003), and reduced confidence in skills development (Riley et al., 2004). Researchers who described reasons for students' preference for DE over FTF included logistical and time barriers (Simonson et al., 1999), convenience (Cragg et al., 2003), and ease of lifelong learning development (McDonald, 2002).

Several studies noted the importance of permeating education with the institutional mission (Astin et al., 2003; Barker et al., 1999; Fisher, 2001; Mathias, 2002; Merena, 2006; Shimabukuro, 2000). One researcher noted that DE delivery resulted in a stronger development of faith (Beers, 1999). According to Simonson (2004) and Simonson et al. (1999), a theory of outcome equivalency between various delivery formats is largely untested.

Educational and mission outcomes of DE and FTF instruction may be measured and compared using several approaches. In chapter 3 is described the methodology of the study.

Chapter 3: Methodology

Introduction

The researcher selected appropriate methodology and the research measurements to measure the perceptions of students and faculty members on the presence of the university's mission in DE, hybrid, and FTF instruction. In doing so, she explored research subjects, instruments, procedures, limitations and delimitations, and anticipated outcomes.

Sample Population

The sample population included all of the faculty members and students at the subject university. Voluntary, deidentified demographic data were requested including age, gender, enrollment status (full-time or part-time, traditional or nontraditional students), faculty status (full-time or part-time, undergraduate or graduate faculty), and program status (major and discipline; FTF, DE, or hybrid). Although the mission data for undergraduate traditional students have been available, to date, these data have not been used for a benchmark comparison with any other student group. Participation was solicited from all faculty members and students enrolled in a traditional and nontraditional modes of instruction.

Data on mission perceptions of part-time faculty were compared with those of full-time faculty. Data collected from traditional undergraduates who were students from 1999 to 2006 served as the student benchmark. Data for nontraditional student engaged in DE, hybrid, off-campus FTF, and on- and off-campus FTF courses were compared to the traditional student data. Upon enrollment, students signed a permission form for use of all data in an anonymous, aggregate form. The study was implemented on May 3, 2007.

The researcher e-mailed nontraditional students and all faculty members an

invitation to participate in the study, which e-mail contained a hyperlink to the mission survey that was used to measure agreement with the objectives and behaviors of the university mission. Participants were requested to voluntarily and anonymously complete the mission survey and the section requesting demographic information. Time to complete the survey was estimated to be approximately 15 minutes.

Applying the equivalency theory, the researcher analyzed the data and compared independent variables. After the final data collection, she analyzed participant demographics. Using the benchmark data from traditional students and full-time faculty, the researcher used specific comparisons to answer the four research questions:

1. Did students perceive that the university mission was equally integrated into course content and instruction regardless of the delivery mode (100% distance, hybrid, and FTF)?
2. Was the mission perceived equivalently among traditional and nontraditional students?
3. Was the mission perceived equivalently among full-time and adjunct faculty?
4. Did the mission component of the end-of-course survey reflect the same degree of mission achievement as the mission survey?

Methodology, Research Design, and Rationale

The researcher used quasi-experimental research. A descriptive design allowed for comparisons of faculty and students perceptions of the mission. The groups in this study were uncontrolled because subjects self-identified as full-time or adjunct faculty or as traditional or nontraditional students who engaged in a specific mode of instruction--FTF, hybrid, or DE--within their discipline.

Measuring multiple intertwined variables required that each variable be isolated

for its individual impact on the results. As the more conservative measure, according to Ravid (2000), the two-tailed t test held each group as the control and, thus, validated findings of the perceptions of both groups. Multivariate factor analysis was used to determine statistically significant differences.

Sample Summary

The participants in this study were a convenience sample of all of the faculty members and the students. Student data from 2001 to 2005 graduates were used as aggregate benchmark comparison data. Permission to use current student and faculty data was requested in the invitation to participate in the study and was given in writing by each one. According to the author of the mission survey, 2001 to 2005 traditional student data were collected and were analyzed as part of the survey validation process. Permission to use the benchmark data as an aggregate comparison was approved by the university.

A convenience sample was limited to those immediately available at the subject university. Convenience sampling was selected due to the relationships between the uniqueness of the study setting's mission, the specificity of the survey to the mission, and the population that participates in the mission. Participants were asked without hint of coercion to allow anonymous responses to be used as aggregate data for this study.

Procedures

A request for voluntary and anonymous participation was sent to all faculty members and students via campus e-mail that had a hyperlink to the survey. After 3 weeks, a second e-mail was sent to nonrespondents requesting voluntary and anonymous participation. A third e-mail was sent a full 7 weeks after the initial invitation to participate was sent. As each participant accessed the hyperlink to the survey, data

collection began.

Statistical analysis on the current traditional student data proceeded. Surveys were downloaded into the Statistical Package for the Social Sciences (SPSS). Data were mined for their descriptive value and plotted in a regression table. Findings were described and analyzed according to the methods described in chapter 4. The researcher's interpretation of data is presented in chapter 5.

Research Questions 1 and 2 that pertained to the dependent variable of university mission asked, Did students perceive that the university mission was equally integrated into course content and instruction regardless of the delivery mode (100% distance, hybrid, and FTF), and was the university mission perceived equivalently among traditional and nontraditional students? To respond to these questions, the researcher used the independent variables of instructional mode (DE, hybrid, or FTF) and student status and the dependent variable of the students' perception of the degree to which the mission was infused into the instruction.

Employing the mission data of the traditional students from 2001 to 2005 who acted as the control group, the researcher compared the DE and hybrid results using one-tailed *t* tests. Findings were plotted as a regression slope in order to isolate the strength of the variables. Concerning correlation statistics, -1 represented a perfect negative correlation, zero represented no correlation whatsoever, and +1 represented a perfect positive correlation or relationship.

For Research Question 3, the researcher explored faculty members' perceptions of the mission. This question asked, Was the university mission perceived equivalently among full-time and adjunct faculty? The researcher responded using the same approach as she did for Research Questions 1 and 2, with mission perception as the dependent

variable and faculty status as the independent variable. Employing mission data of full-time faculty who acted as the control group, the researcher compared part-time faculty results using one-tailed t tests. Findings were plotted as a regression slope in order to isolate the strength of the attributes and the impact on the variables.

Research Question 4 asked, Did the mission component of the end-of-course survey reflect the same degree of mission achievement as the mission survey? To answer this question, the researcher compared the mean scores of the three mission-related questions on the end-of-course survey (Questions 11, 12, and 13) and the mean scores of the mission survey.

A bivariate distribution demonstrated further findings for the convenience sample. Distributions determined (a) the dependent variable of faculty and student perceptions of the mission and (b) the relationship of the dependent variable to the independent variables of faculty status (full-time or adjunct status), student status (traditional or nontraditional status), major area of study, and mode of instruction (100% DE, hybrid [51% distance and 49% FTF], or FTF). The researcher also conducted a two-tailed t test and focused on responding to the four research questions.

Instruments

Mission survey. The mission survey was developed and implemented through a campus initiative in 1999 for measuring mission achievement among traditional graduates. The survey statements were written to reflect behaviors associated with each statement of the university mission, behaviors that were identified through a qualitative research study. Questions were validated over a 5-year period by administering the survey to students in the freshman religion course, and again in the senior religion course. Consistently, the scores regarding mission perception were stronger among senior

students after 4 years of exposure to the mission.

Each of the 57 survey questions corresponds directly to phrases or objectives within the university mission statement.

A 7-point Likert scale was used in which 0 was *no opinion*, 1 was *very unimportant*, 2 was *unimportant*, 3 was *somewhat unimportant*, 4 was *somewhat important*, 5 was *important*, 6 was *very important*. The mission survey results and the requested demographic information constituted the data for this study. Permission to modify and use the mission survey (see Appendix B) was given by the survey author and the university.

End-of-course survey. The end-of-course survey used in the graduate school has a 6-point Likert scale in which 0 was *does not apply*, 1 was *strongly disagree*, 2 was *disagree*, 3 was *neither agree nor disagree*, 4 was *agree*, and 5 was *strongly agree*. Of the 31 survey statements, the following three statements (Items 11, 12, and 13) addressed the mission: "The class was conducted in a Christian environment," "I was treated respectfully in this course," and "My questions were answered in a positive and respectful manner." Data from these questions were requested from the evaluation data pool and measured as a portion of mission perception.

Bias Reduction

Internal validity was threatened because the sample was a convenience sample of necessity. The groups being compared made up the total population of the university for the data-collection periods of 2001 to 2005 for the control group and 2006-2007 for the students in the DE, hybrid, and FTE courses; all available data were used. Demographic data were analyzed using regression analysis to identify and isolate possible confounding bias. Information bias was avoided through careful analysis and scrutiny, as well as

honest reporting of results.

Assumptions

In discovering and controlling all factors that might have an impact on the study variables, the researcher made a reasonable assumption that the equivalency equation would hold true for the variables isolated in the present study. She also assumed that guided activities for distance learners varied as a norm in the same manner as FTF learning activities varied. Third, she assumed that the benchmark for mission perception established by traditional students in the FTF mode of instruction could similarly be established by the mission perception of full-time faculty. Therefore, the results of perceptions of the subjects engaged in DE and hybrid instruction might be compared to the perceptions of subjects engaged in FTF instruction, and the perceptions of adjunct faculty of the mission might be compared to the perceptions of full-time faculty. Finally, the researcher assumed that the mission behaviors in the survey developed in 1999 continued to be relevant to the current campus population.

Limitations

Limitations are conditions, restrictions, or constraints that may affect the validity of project outcomes. A limitation is a weakness or shortcoming in a project that cannot be avoided or corrected and is acknowledged in the final report. Several limitations were found in the present study. Some professors taught FTF and online, but not a 100% distance course. The researcher assumed that the variability accompanying any practicum component conducted through a preceptor was equivalent among all such experiences and, therefore, equivalently weighed into mission perception.

Other limitations included potential dishonesty, practicum experiences that might have been facilitated by an alumnus or nonalumnus preceptor, and the study involving

only one particular organization. A limitation was imposed by the specificity of the subject university's mission necessitating the use of an instrument composed of the mission's unique verbiage. The fact that a variable number of full-time administrators and faculty members were contracted to teach graduate courses beyond their workload might have had an impact on the infusion of the mission in instruction. Another mission-related limitation was that students might have selected the subject university specifically for its unique mission.

Delimitations

Delimitation is a planned restriction of the scope of the project or the depth of inquiry, usually made necessary because of the lack of time or resources. This study was limited to the students and professors at one Christian university; the study findings were, thus, similarly limited. The present study was delimited to measuring the subjects' perceptions of the mission as reflected by the degree of their knowledge of the mission acquired through the three types of courses. The full mathematical formula described by equivalency theory was generally applied to this study (Casarotti et al., 2002). Behaviors were assigned an equivalency category using a nonscientific approach.

Anticipated Outcomes

A hypothesis of equivalency was developed for each research question. The intended outcome of this study was to establish the degree of perceived mission equivalency in three types of instruction. Oren, Mioduser, and Nachmias (2002) affirmed in their five-site study that a positive online learning environment was directly connected to the achievement of intended social outcomes. Failure to reject a null hypothesis regarding equivalent social interaction reflected through subjects' perception of the mission was anticipated as a study outcome.

Summary

In this chapter, the researcher presented an overview of the various methodologies used in research to measure mission integration and outcome evaluation. An additional description was provided regarding equivalency theory. Based on these research factors, the researcher described the research methods including information about the subjects, instruments, procedures, limitations and delimitations, and the study's anticipated outcomes. Chapter 4 provides the detailed application and results of the selected methodologies.

Chapter 4: Results

The purpose of this study was to investigate to what degree students and faculty who participated in FTF, DE, or hybrid modes of instruction perceived that the subject university's faith mission was integrated into FTF, DE, and hybrid course content and instruction. Survey instruments were used to quantify their perceptions. Beginning with a general overview of the study population for the academic year, the researcher obtained data from the surveys and analyzed the statistical results to respond to each of these four research questions:

1. Did students perceive that the university mission was equally integrated into course content and instruction regardless of the delivery mode (100% distance, hybrid, and FTF)?
2. Was the university mission perceived equivalently among traditional and nontraditional students?
3. Was the university mission perceived equivalently among full-time and adjunct faculty?
4. Did the mission component of the end-of-course survey reflect the same degree of mission achievement as the mission survey?

Data Collection

Data collected through several sources provided means for the comparison needed to address the research questions. The first data set was acquired through a convenience sample who responded to an online mission survey (see Appendix B) that was made available to the full university population from May through August 2007. The second data set was compiled from results of the end-of-course survey in the traditional undergraduate course designed to introduce the new university enrollee to the setting,

resources, and their peers. The compiled data from 2001 to 2005 served as the benchmark (see Appendix C) for data comparison. The third data set was compiled using the end-of-course survey (see Appendix A) data from students in courses in the subject university's graduate school. The list of online courses offered through the graduate school is found in Appendix D.

According to equivalency theory, the three outcomes to use to compare equivalency include classroom, practical, and social learning experiences. The researcher measured mission outcomes based on behaviors defined as mission essential by a committee formed for that very purpose. The degree of identity with each behavior was established through 5 years of student data that served as a measurement benchmark for mission achievement and that was used in the basis for a comparison with the current student data.

An assumption not explored in this study was the accuracy of categorizing the 58 mission-related behaviors in the mission survey into the three outcome categories of classroom, practical, and social learning experiences. The behaviors were assigned a category through the mutual agreement of the author of the mission survey, the researcher, and several others who were well versed in the survey and its intended use. Behaviors were considered to be classroom, practical, and social based on the situation and context.

Description of Methodology

Data collection for the online mission survey began 2 days before the May 2007 graduation of undergraduate and graduate students and 4 days after the nongraduating population left the subject university. The first e-mail invitation to participate was sent to 100% of the university population of faculty and students who were over 18 years of age.

The e-mail contained a hyperlink to the online survey and a copy of the survey as an attachment. This first e-mail invitation netted 480 responses. The second invitation to participate was sent 4 weeks later, netting 524 additional responses. The third and final request for participation was sent 3 weeks after the second one, netting 214 respondents, for a final total of 1,218 respondents.

Collected data reflected the degree to which the university population perceived the infusion of the mission in courses for this academic year. An unplanned delimitation was the possible participation by faculty retirees who were kept in the e-mail system and who likely received the request for participation. No accounting was made for retirement status, and respondents who indicated retirement age or higher were kept as many still served as adjuncts.

Data Set 1: Surveyed current students and faculty. The online mission survey was a 74-item Likert-scale questionnaire in which 0 was *no opinion*, 1 was *strongly disagree*, 2 was *disagree*, 3 was *neither agree nor disagree*, 4 was *agree*, and 5 was *strongly agree*. Of the 74 items, 58 of them addressed behaviors that reflected the mission. An ad hoc committee at the subject university developed this portion of the survey from 1999 to 2001 specifically to measure students' perceptions of mission achievement. The 58 statements were identified as measuring a classroom activity, practical activity, or a social interaction and were used to demonstrate post hoc application of equivalency theory and to interpret and describe the findings. At the end of the mission survey in Appendix B is found a listing of survey items for each of the three categories.

For the purpose of the present study, DE included all forms of media-driven education delivered via asynchronous or synchronous instruction without any traditional FTF instruction. Those enrolled in DE courses used the Blackboard Learning System.

Hybrid delivery of a course or program involved a combination of FTF and DE instruction, with the combined percentage of each comprising the whole learning experience.

The remaining 16 questions of the online survey were constructed by the researcher to learn respondent demographics for descriptive and analytic purposes. Categories were further streamlined for sample discussion. Questions pertaining to the subject university and its department majors provided repetitive data to ensure reliability; thus, the researcher consolidated data from these questions. She gained further clarity from the student and faculty respondents' status and level of involvement such as traditional undergraduate, education beyond first degree, baccalaureate degree completion, masters, and doctoral programs.

The researcher analyzed the lowest degree and corresponding school within the subject university and the longest length of time in a role when she found an overlap of participation. Majors were consolidated under the departments as listed in the catalog. Student and faculty participation in both undergraduate and graduate schools were coded with the same department number, using 100, 200, or 300 codes for associate, bachelor completion, or master-level majors, respectively. She achieved further clarification of responder status by means of a cross-check made of program, level of enrollment, and the percentage of DE exposure against the various program attributes. Finally, she found that the question requesting percentage of time enrolled in courses with FTF, off-campus classroom, partially on campus and partially off campus, 100% DE, hybrid modes of instruction elicited unclear responses. Because no clarification of the category of other, meaning other modes of instruction, was requested and because respondents could interpret this category to include anything from online discussion to practicum experiences, this percentage column was eliminated.

Further data sanitizing was achieved by isolating those respondents in a pure delivery format to answer the specific research questions. For example, hybrid students were categorized as such only when enrolled through the graduate school. Delivery categories were composed of only those respondents whose delivery format was 100%.

Of the 1,218 survey respondents, 48 participants (3.9%) returned the survey as an e-mail attachment. Upon receipt, the researcher printed each without identifying data and manually entered data into the online collection program; the e-mail was subsequently deleted from the inbox and trash bin. The remaining respondents completed the survey online, They accessed it through the Web link on the e-mail invitation to participate.

Each of the questions on the five survey pages showed a gradual drop in the number of those completing the survey. Of the 48 returned by e-mail, 12 were completed without the demographic information. None of the respondents who answered via e-mail attachment answered the final question as it was inadvertently cut from the e-mail attachment. Two surveys were not used because they reflected the respondent's claim to full-time traditional student status, living on campus, and completing their major by 100% DE; the university offered no major in a DE format. Several respondents indicated that they were new graduates with no major listed and were, therefore, coded as unsure. Twelve respondents indicated that they were both a student and a faculty member and were, thus, eliminated leaving the total number of respondents whose data were used at 1,203.

Unanswered survey questions were labeled as such in the missing feature of the SPSS system. The essay responses were reviewed and carefully interpreted; where possible, a specific label was inserted into the raw data. For instance, an unsure response

to the categorical question regarding school or program was entered under the appropriate school based on major and degree listed. Three respondents listed the associate of arts in business, and another listed teacher certification; thus, these categories were added. Undergraduate majors with a teaching component were categorized into their primary discipline; for example, music education was categorized under music. This was not the case, however, when a concentration was identified by a graduate education respondent; the respondent was coded as participating in graduate level, education major. Faculty who taught primarily at the undergraduate level remained coded in their identified teaching concentration.

Several difficulties were encountered with the online survey. Specifically, 16 potential participants replied via e-mail that the survey could not be submitted, and a number of faculty members verbally indicated the same. To remedy this issue, the help desk of the online survey company recommended that multiple submissions from the same Internet provider address be allowed because the survey was conducted in an academic setting with computer labs.

Another problem encountered pertained to Question 23, "What is the approximate percentage of your participation in each of the following delivery formats?" The percentage of the formats used had to total 100%, meaning that respondents had to insert zero in the response box if a category was not used. The majority of premature exits occurred on this question. Data from this area was used to validate respondent participation in a delivery format. The online survey directions were made clearer after which no further problems from responders were e-mailed.

Data Set 2: Surveyed former students. The second data set collected from 2001 to 2005 was compiled by the committee members who designed the online mission survey

(see Appendix B). The data were originally obtained from traditional freshmen who responded to the survey at the end of the university's introductory course. In the present study, these data served as the benchmark against which subsequent student data were compared. The data were only available as calculated means and all identifying information was de-identified prior to the researcher receiving the data. The mean for each year and standard deviation for each survey question were totaled and averaged in Excel for benchmark use in *t*-test analysis.

Data Set 3: Surveyed graduate students. The third data set was obtained from the graduate school, end-of-course surveys (see Appendix A) for 419 courses, representing 1,983 respondents. Courses were listed as being offered FTF at the main campus, FTF off campus, or DE. Courses offered by online delivery were checked against the list of online course offerings and then coded accordingly. Survey data from each of the courses were already aggregated and summarized within the graduate school prior to the researcher gaining access. Data was further consolidated by calculating the mean of the three means for each of the three questions on the end-of-course survey.

The course evaluations from the graduate school were coded for the major in which they were conducted as indicated on the course evaluation summary, with 100, 200, or 300 codes used for associate, bachelor completion, or master levels, respectively. Three questions on the end-of-course survey pertained to the university mission: Responses to these were the only data used from this survey. To ensure transfer accuracy, group summary scores for the three mission-oriented questions from each course summary were copied from Excel into another Excel compilation document and mean scores calculated. The data were then used to answer Research Question 4.

Sample Population Demographics

The National Center for Education Statistics (2006) provided guidelines for the use of education statistics in research. The center's Web site described the various methods for calculating enrollment based on an institution's education calendar. The semester system forms the time frame for educational offerings at the subject university, and the fall headcount is used to calculate the number of FTE students.

In the 2005-2006 and 2006-2007 academic years, the headcount and FTE students at the university were reported on the 10th day of the fall classes as 4,495 and 3,432, respectively. FTE is calculated by dividing the collective number of student credit hours by the average number of enrollee credit hours, or 15 credit hours. The headcount dropped to 4,196 in Spring 2007. In the traditional undergraduate programs, the headcount totaled 2,487 students; in continuing study program, students totaled 498; and, in the graduate program, students totaled 1,510. Student residents on campus for the 2006-2007 academic year totaled 2,159. Of the 2,487 traditional students, 1,120 of them (45%) reported that their religious background was of the university's denomination. Religious background data were not collected by the registrar for students in the graduate school. According to the dean of the graduate school, descriptive statistics were not kept regarding student enrollment in FTF, DE, and hybrid courses.

In the traditional programs, the two courses offered via online delivery were nursing research and an earth weather course, with enrollments of 34 and 16 students, respectively. During the summer, 14 Web-based undergraduate courses were offered with approximately 100 students enrolled: Interpersonal Communication, Writing Style, Physical Geography, Global Natural Resources, Western Civilization, American Civilization, American Civil War, Third World Development, The Koran, Western

Literature, Health Professions, Christianity and Politics, Psychology of Human Communication, and Child Welfare Services. According to the registrar, the online courses have a virtual interactive component via Blackboard course management system.

Of the 535 faculty employed in the 2006-2007 academic year, 108 were full-time traditional faculty members (42 females, 73 males), and 7 taught full time in the graduate school. Adjunct faculty totaled 420, 49 of whom taught in the traditional programs and the remaining 353 taught in the graduate school (221 females, 132 males). Of the music adjunct instructors, 18 delivered private lessons in applied music. Unpaid instructional assistance was provided to students during the senior capstone courses for the nursing, education, social work, and business majors.

The teaching load for 36 of the full-time faculty was variably split between the traditional programs and the graduate school. Of the 36 faculty members, 14 carried some degree of administrative responsibility as part of their full-time load. A large number of administrators and faculty members had contracts to teach graduate school courses beyond their full-time load. The average age of full-time faculty was 49 years, with the youngest being 24 years old and the eldest being 73 years of age. The mean age of full professors was 53 years, of associate professors was 50 years, of assistant professors was 42 years, and of instructors was 30 years.

Of the 108 full-time faculty members, 39 of them were tenured, 33 of them had a continuing (long-term) contract, and 44 of them had a continuing yearly contract track. Four full-time faculty members were in their 1st year at the subject university, and the longest serving faculty member was in the 39th year. The mean years of service for professors were 17 years, for associate professors were 8 years, for assistant professors were 3 years, and for instructors were 2 years.

The graduate school employs 7 full-time faculty members and 420 adjunct faculty members. Content delivery was managed through student cohorts. The data from the end-of-course survey were reported under the department by course number.

General Survey Results

The raw data produced by the 1,218 online respondents showed that 1,057 completed the survey for an 86.8% completion rate. Twelve respondents indicated that they were both faculty and student, and were excluded to avoid bias. All together, 1,070 students and faculty responded, with 320 being male (29.1%) and 750 being female (70.1%). Of the 131 faculty respondents, 72 were male (55%) and 59 were female (45%). Of the 924 student respondents, 240 were males (26%) and 684 were females (74%). The student head count for Fall 2006 was 4,495. Male students at the subject university totaled 1,574 of the 4,495 headcount, of whom 15.3% responded. The number of female students at the university totaled 2,921, of whom 23.4% responded.

Of the headcount of 4,495 in Fall 2006, 924 students (20.6%) responded. Of the Spring 2007 headcount of 4,196, 22.0% responded. Of the 3,432 FTE students, 26.9% responded. Of the 1,070 total respondents, 86.4% responded. Student respondents indicating full-time status numbered 667 representing 19.4% of the FTE students. Of the 1,055 respondents who reported their age, 228 students (21.6%) indicated the age of 18-19 years, and 33 faculty years (25.2%) indicated the age of 55-59.

Faculty and student programs. Of the 1,055 respondents, 131 were faculty and 924 were students. The researcher found that 61 of the faculty (46.6%) and 557 of the students (60.3%) reported participation in a traditional program, 10 faculty (7.6%) and 103 students (11.2%) reported participation in the baccalaureate completion program, and 50 faculty (38.2%) and 247 students (26.7%) reported participation in a master or

certificate program. Only 5 students (.5%) and no faculty reported participation in an associate degree program, whereas 10 faculty (7.6%) and 12 students (1.3%) reported participation in the doctoral program. Of the 1,519 graduate students, 367 of them (24.3%) were respondents, whereas of the 360 faculty members in the graduate school, 70 of them (19.4%) were respondents.

Schools of participants. Respondents were asked to list their primary participation in one of the six schools at the subject university. The 1,042 respondents reported a major in each of the academic divisions: 369 in arts and sciences (35.4%); 231 in graduate and continuing studies (22.2%); 227 in education (21.8%); 155 in professional studies (14.9%); and 60 in theology and Christian ministry (5.8%). A total of 161 respondents skipped this question. The data in this section were perhaps the most sanitized when the major did not match the school that the respondent selected (possibly due to the recent school restructuring); thus, the school was corrected.

Areas of study. Of the 1,047 respondents, the most frequently reported majors and levels by those involved in traditional programs included 100 respondents (9.6%) in nursing, 76 of them (7.3%) in business, and 65 of them (6.2%) in elementary education. Of the top graduate respondents, 230 respondents (22.0%) reported their major as teacher education curriculum and instruction, 32 of them (6.9%) reported business administration, and 8 of them (.8%) reported nursing. The greatest frequency of respondents from the baccalaureate degree completion programs were 38 respondents (3.6%) in nursing and 11 respondents (1.1%) in business administration.

Student enrollment status. When asked to describe their enrollment status, 926 responded. For Fall 2006, the residential student population totaled 2,036. A total of 448 of student respondents (48.4%) categorized themselves as traditional, full-time, first-degree

students who were living on campus, whereas 104 of them (11.2%) reported living off campus. All full-time students who took 100% of their courses in classrooms on campus and lived either on or off campus were considered traditional students. Only 104 respondents reported living off campus and pursuing education beyond a first degree in a full-time capacity, whereas 15 respondents (1.6%) were part time pursuing their first undergraduate degree. Those pursuing graduate education included 191 respondents (20.6%), with 12 of them (1.3%) enrolled in doctoral education. Fifty-one respondents (5.5%) selected the other category, and 1 respondent (.1%) was enrolled in an occasional course for self-enrichment.

Faculty teaching responsibility. The 132 faculty respondents were asked to define their primary teaching responsibilities. According to the data, 60 respondents (45.5%) identified themselves as primarily teaching full time in a traditional undergraduate program, and 12 respondents (9.1%) were adjunct or part-time faculty. Of those teaching on the traditional undergraduate level and on the graduate level, 14 of them (10.6%) were full time. Four faculty members (3.0%) taught full time in the baccalaureate degree completion and 13 faculty members (9.9%) taught part time. In the graduate school, 5 of the faculty (3.8%) were full time, and 31 of them (23.5%) were part time. When part-time and adjunct faculty members were asked to identify their years of teaching at the institution, 21 of them had taught less than a year, 13 had taught 2-3 years, 18 of them had taught 4-5 years, 10 of them (7.6%) had taught 6-9 years, 3 of them (2.3%) had taught 10 years or longer, and 12 of them (9.1%) placed themselves in the other category.

Percentage of participation in distance and FTE courses. Respondents were asked to numerically define their participation in the various delivery formats. According to the raw data, 877 respondents (72.7%) stated that 69% of instruction was delivered FTF on the

main campus. A total of 561 respondents (46.7%) respondents spent 8% of their learning time in an off-campus classroom. A total of 498 respondents (41.3%) stated that their learning time was split evenly between the on-campus classroom and the off-campus classroom, whereas 70 respondents indicated that 75% of their coursework was conducted off campus. A total of 583 respondents (48.3%) reported that 15% of their learning was conducted online, whereas 547 respondents (45.3%) described their instructional mode as hybrid, half DE and half FTF.

The researcher performed a cross tabulation of faculty and student gender and mission perception (see Table 1). She also performed a detailed breakdown of respondent attributes and their perceptions of the mission, as conveyed in DE versus FTF courses (see Appendix E).

Table 1

Perceived Difference in Mission of Respondents in Distance and Face-to-Face Courses

Variable	Male		Female	
	Faculty	Student	Faculty	Student
None	13	72	8	213
Minimal	20	72	17	209
Some	14	37	8	95
Many	11	17	16	62

Note. N = 884.

Perception of mission objectives in DE and FTE courses. When asked how they would describe their perception of the university mission as it is conveyed in distance courses and FTF courses, 884 faculty and students combined responded. Of these respondents, 306 of

them (34.6%) perceived no difference between distance courses and FTF courses, and 318 of them (36.0%) indicated minimal differences. Of the 884 respondents, 150 of them (17.4%) perceived a number of or some differences, and 106 of them (12.0%) perceived many differences. Thus, 70.6% of the respondents indicated minimal to no difference in their perceptions of the university mission being conveyed in the classroom and online courses.

The researcher provided pertinent statistical analysis and data relative to each research question. She used an alpha level of .05 and a confidence interval (CI) of 95% for all *t*-test calculations. Consistent with equivalency theory, a null hypothesis was used for each of the four research questions. Either rejecting the null hypothesis or not rejecting the null hypothesis was based on the *t*-test results for each research question. An interpretation of equivalency theory was posed based on statistical findings, with elaboration and full discussion reserved for chapter 5.

Results Pertaining to Research Question 1

This question asked, Did students perceive that the university mission was equally integrated into course content and instruction regardless of the delivery mode (100% distance, hybrid, and FTF)? Null Hypothesis 1 stated, No difference in mission perception exists between students enrolled in the FTF, distance, or hybrid modes of instruction. The hypothesis of the equivalency theory stated, FTF instructional mode was equivalent to DE and hybrid instructional modes.

Of the 684 student respondents who indicated participation in courses with 100% of an instructional mode, 464 of them (463 *df*) reported the FTF mode on campus; 44 students (43 *df*) reported off-campus FTF mode; 107 student respondents (106 *df*) reported DE mode; and 6 students (5 *df*) reported FTF delivery both on and off campus, a sample too small for reliability. Therefore, the traditional FTF students composed the full

FTF category for Research Questions 1 and 2. The respondents who indicated that they were 100% involved in courses with hybrid instruction totaled 63 students (62 *df*).

The independent variable in Research Question 1 was course delivery format (DE, hybrid, or FTF) and the dependent variable was the student's perception of whether the mission was infused in the course content and instruction. To answer this question, the researcher compared two data sets, using the mission survey data of traditional students from 2001 to 2005. Means of responses to the mission survey by 2,419 freshmen were collected from the 2001 to 2005 academic years, and these freshmen served as the control group. The survey benchmark data were compared with the student survey data for the 2006-2007 academic year. The mean response for each survey question was calculated in Excel and uploaded into SPSS for one-sample *t*-test analysis. Data columns were isolated for student respondents with 100% participation in each of the respective delivery modes.

FTF instructional mode. One-sample *t*-test analysis of the mission survey results (see Appendix F) of 464 students who reported 100% FTF instruction showed that 22 of the 58 *t*-test scores were smaller than the critical *t*-test score of 1.960 (95% CI, two-tailed *t* test, .05 significance, *df* as infinity). Of the 58 mission-related attributes, 22 of them were selected. A total of 8 were classroom, 7 were practical, and 7 were social attributes, as related to the equivalency theory. The 8 classroom attributes included understanding that the university is a denominational school, knowing how the mission statement affects me, learning about faculty credentials, understanding satisfactory progress, selecting an academic advisor, matching career goals to courses, creating a personal study system, and tracking personal academic progress.

Of the 22 attributes selected, 7 practical attributes were managing time appropriately, integrating faith and learning, committing to spiritual development,

honoring Christ as personal Savior, developing a daily devotional life, being an avid worshipper of God, and accessing the university intranet. The 7 social attributes included understanding the basis for campus rules, listening attentively, collaborating with others, participating in campus outreach ministry, being connected to other believers, using God-given gifts to meet needs, and being a credible Christian witness. Additional attributes that were accepted at the .01 alpha level and .99 CI included avoiding academic probation, knowing financial aid requirements, setting goals, thinking critically, developing an internal locus of control, sharing the good news of Christ, using the computer for word processing, and using the library information system.

DE instructional mode. One-sample *t*-test analysis (see Appendix G) of the mission survey results of the 100% DE instructional mode showed 21 of the 58 *t*-test scores to be smaller than the critical *t*-test score of 2.0 (95% CI, two-tailed *t* test, .05 significance, 120 *df*). A total of 21 attributes were comparable to those of the control group and, thus, were related to mission perception among the DE students numbered 13 classroom, 6 practical, and 2 social attributes. The 13 classroom attributes were learning purposes of liberal arts education, understanding the academic program, understanding academic standing, understanding satisfactory progress, avoiding academic probation, knowing financial aid requirements, selecting an academic advisor, going to class, thinking critically, creating a personal study system, tracking personal academic progress, practicing ethical scholarship, and understanding academic integrity.

Of the 21 attributes selected out of 58 mission-related attributes, the 6 practical behaviors included learning to make wise choices, managing time appropriately, setting goals, using the computer for word processing, finding periodicals in the library, and accessing the Internet. The 2 social behaviors were listening attentively and developing an internal locus of control. Additional attributes that failed to be rejected at the smaller

alpha level and higher CI included learning about faculty credentials, fostering positive relationships, avoiding procrastination, collaborating with others, accessing the university intranet, using the library information system, sending e-mail, and receiving e-mail.

Hybrid instructional mode. One-sample *t*-test analysis (see Appendix H) of mission survey results of 63 respondents who were in the 100% hybrid courses showed that 24 of the variable *t*-test scores (62 *df*) were smaller than the critical *t*-test score of 2.00 (.05 significance, 95% CI, two-tailed *t* test). Of the 58 mission-related attributes, 20 attributes (17 classroom, 3 social, and 0 practical) were selected. The 17 classroom attributes were related to perception: understanding how school history forms policy, knowing how the mission statement affects me, knowing how to define holistic education, learning the purposes of liberal arts education, learning liberal arts tradition, understanding the academic program, reading the university catalog, avoiding academic probation, knowing financial aid requirements, selecting an academic advisor, matching career goals to courses, being able to compute grade-point average (GPA), valuing a high GPA, going to class, thinking critically, gaining test included learning to make wise choices, managing time appropriately, avoiding procrastination, and set goals. The three social attributes included fostering positive relationships, listening attentively, and developing an internal locus of control.

Additional attributes failed to be rejected at a smaller alpha level and higher confidence level. These attributes included attending denominational school, engaging in wholesome entertainment, abstaining from alcohol and drug use, participating in leadership activities, understanding satisfactory progress, creating a personal study system, collaborating with others, practicing ethical scholarship, understanding academic integrity, integrating faith and learning, attending chapel regularly, joining a small group bible study, honoring Christ as personal Savior, developing a daily devotional life, attending

church regularly, being an avid worshiper of God, being connected to other believers, using God-given gifts to meet needs, accessing the university intranet, using computer for word processing, using the library information system, and accessing the Internet.

Factor analysis. Factor analysis conducted in SPSS was used to identify which factors were most strongly related to the students' perceptions of difference (0 was *none*; 1 was *minimal*; 2 was *some*; 3 was *great deal*) in mission infusion into instruction by delivery mode. The eigenvalues for survey responses were reported as calculated in SPSS using varimax rotation, principle component matrix. Park (2003) noted that this technique was devised by Spearman and applied by Kaiser to calculate the principal components that "maximize the sum of the variance of the loading vectors" (p. 1) in orthogonal rotation. Factor analysis is useful in identifying the pertinent variables of a construct.

Assuming perception occupies 100% of a three-dimensional space, the amount of perception present as indicated by respondents may then be calculated according to its strength of influence on various attributes or attitudes. The use of rotation ensures that perception is viewed from multiple angles and increases the accuracy of analyzing perception by correlating its principle components. Factor analysis reduces data by analyzing the covariance of the study variables. The vertical axis of the scree plot depicts the factors that account for the majority of perception, whereas the horizontal axis accounts for the remainder (Park, 2003). Interpretation of the resulting matrix is twofold. The upper matrix displays the Pearson correlation coefficient among all possible pairs of the study variables, and the lower matrix displays the one-tailed significance results of correlations. A significance value greater than .5 or an eigenvalue greater than 1 represents a likely strong variable contributing to perception.

The component matrix scores were, thus, used to identify factors impacting the

perception of mission equivalency among students in each of the delivery formats. The communalities of factors in each delivery format (see Appendix I) represented the sum of measured rotations.

For the FTF instructional mode, 14 attributes (8 classroom, 5 practical, 1 social) factored as being strongly related to the perception of no difference in mission equivalency among traditional FTF delivery students. These attributes accounted for 72.26% of the variance: integrating faith and learning (.722), finding periodicals in the library (.503), sending e-mail (.691), understanding satisfactory progress (.476), understanding how to define holistic education (.520), abstaining from alcohol and drug use (.435), knowing how school history formulates policy (.425), learning about faculty credentials (.455), using the library information system (.443), being able to compute GPA (.420), knowing financial aid requirements (.323), understanding academic standing (.356), knowing how school history influences policy (.359), and using the library information system (.224).

For the DE instructional mode, 10 attributes (6 classroom, 2 practical, 2 social) factored as being strongly related to the perception of no difference in mission equivalency among DE delivery students. These attributes accounted for 90.85% of the variance: attending chapel regularly (.826), creating a personal study system (.684), understanding academic standing (.783), using the library information system (.656), learning the purposes of liberal arts education (.496), knowing that it is a denominational school (.436), matching career goals to courses (.480), committing to spiritual development (.380), collaborating with others (.321), and avoiding academic probation (.320).

For the hybrid instructional mode, out of a possible 58 mission-related attributes, 7 attributes (3 classroom, 3 practical, and 1 social) factored as being strongly related to the perception of no difference in mission equivalency among hybrid delivery students. These

attributes accounted for 94.77% of the variance: being an avid worshipper of God (.975), sending and receiving e-mail (.956 each), valuing a high GPA (.953), understanding academic standing (.895), learning the liberal arts tradition (.624), developing an internal locus of control (.788), and managing time appropriately (.442).

Equivalency Theory Applied to Null Hypothesis 1

Casarotti et al. (2002) described the mathematical summary of equivalency theory of learning experiences as $\Sigma(\text{TC}) e_i + e_l + e_m = \Sigma(\text{DL}) e_i + e_l + e_m$, where "TC = traditional classroom, DL = distance learning, e_i = learning experiences, e_l = social interaction, e_m = practical activities" (p. 3). In other words, the sum of the traditional classroom learning experience, social interactions, and practical activities are equal to the sum of the distance learning or DL classroom learning experience, social interactions, and practical activities. The researcher analyzed the three activities in response to Research Question 1 (see Table 2).

Table 2

Summary of Equivalency Determinants for Research Question 1

Attribute	FTF	DE	Hybrid
Classroom	8	13	17
Practical	7	6	4
Social	7	2	3

Note. FTF = face-to-face instruction; DE = distance education instruction.

In the spirit of equivalency theory, a nondirectional or null hypothesis was applied to the data. The numbers of mission behaviors within each category that were significant with the benchmark control group were used. The mission survey used in this study addressed

each of the equation's components. Null Hypothesis 1 was rejected.

Results Pertaining to Research Question 2

This question asked, Was the university mission perceived equivalently among traditional and nontraditional students? The null hypothesis stated, No difference exists between the mission perceptions of traditional and nontraditional students. Consistent with the benchmark control group, a traditional student was defined as a student who resided on or off campus and was completing a baccalaureate degree in courses using the 100% FTF delivery mode in the undergraduate program, not through the graduate school. A nontraditional student was defined as one who resided off campus and was completing a baccalaureate or graduate degree in any delivery format through the graduate school.

Traditional and nontraditional students. The data were fully separated into student respondents who were enrolled in the school of professional studies and who indicated that they were in a program that did not provide traditional FTF instruction. Data were also sanitized by degree to ensure that those enrolled through the school of education at the graduate level were excluded from the traditional student population. Respondents who indicated that they received FTF instruction on the university property were removed from the nontraditional group. For the nontraditional group, an independent t test was calculated using the grouping variable of delivery type with a cut-off point of two because the cut-off point for the traditional grouping was one.

The independent variable in Research Question 2 was student status (traditional and nontraditional). The dependent variable was the student perception of mission infusion into a course and instruction. Mission behaviors of current nontraditional students were compared to those of traditional students to determine those that were

significant. Findings were plotted as a regression slope by the scree chart in order to isolate the strength of the attributes to determine which ones contributed most strongly to the formation of mission perception. Concerning correlation, -1 represented no correlation whatsoever, whereas +1 represented a perfect correlation or relationship.

The responses of 285 nontraditional (100% DE, off-campus FTF, hybrid, and on- and off- campus FTF) survey respondents (group ≥ 2) as compared to responses of the 399 traditional (100% campus FTF) survey respondents (group <2) indicated that 22 of the *t*-test scores were smaller than the critical *t*-test score of 1.96 (95% CI, .05 significance, two-tailed *t* test, 400 *df*, equal variances not assumed).

Of the 22 attributes found significant by *t* tests, 12 were classroom, 8 were practical, and 2 were social as related to equivalency theory. The 12 classroom attributes were learning about faculty credentials, reading the university catalog, understanding academic standing, understanding satisfactory progress, avoiding academic probation, being able to compute a GPA, valuing a high GPA, thinking critically, creating a personal study system, gaining test taking confidence, tracking personal academic progress, and understanding academic integrity. The 8 practical attributes were managing time appropriately, avoiding procrastination, setting goals, accessing the university intranet, using the computer for word processing, using the library information system, accessing the Internet, and sending e-mail. The 2 social attributes were listening attentively and attending chapel regularly.

Of the 20 attributes, an additional 7 attributes that failed to be rejected at .01 alpha level and 99% CI were tradition, academics, financial aid, attendance, control, ethics, and receipt of e-mail; these were smaller than the critical *t*-test score of a smaller significance and higher CI. Raw data of the perceptions of the mission in DE and FTF instruction for this group of 884 respondents are found in Table 3.

Table 3

Student Perceptions of Mission in Distance Education and Face-to-Face Courses, by Program (N = 884)

Program	None	Minimal	Some	Many
Traditional BA/BS	171	184	94	57
BA/BS completion	35	35	16	12
Master's/certificate	94	91	41	30
Associate of science	0	2	1	2
Doctoral	6	6	2	5

Note. BA/BS = bachelor of arts or bachelor of science.

Factor analysis was conducted in SPSS using principle component extraction, 25 iterations, and varimax rotation of the correlations to identify which factors were most strongly related to the mission perception of no difference between traditional and nontraditional students. The component matrix scores were used to identify attributes with eigenvalues that factored as affecting the perception of mission equivalency among traditional and nontraditional students (see Appendix J).

As in the first research question, 14 attributes (8 classroom, 4 practical, 2 social) factored as being strongly related to the perception of equivalency among traditional students. These attributes accounted for 76.6% of the variance: integrating faith and learning (.758), finding periodicals in the library (.488), sending e-mail (.728), understanding satisfactory progress (.485), knowing how to define holistic education (.522), abstaining from alcohol and drug use (.447), avoiding academic probation (.488), using the library information system (.510), learning the purpose of liberal arts education

(.480), knowing that it is a denominational school (.379), knowing financial aid requirements (.396), tracking personal academic progress (.453), participating in leadership activities (.337), and understanding academic standing (.306).

Moreover, 11 attributes (7 classroom, 3 practical, and 1 social) factored as being strongly related to the perception of equivalency among nontraditional students. These accounted for 80.65% of the variance: valuing the Christian community (.824), accessing the Internet (.533), understanding the academic program (.478), computing GPA (.464), knowing financial aid requirements (.644), learning liberal arts tradition (.312), sending e-mail and receiving e-mail (.313 each), reading the catalog (.442), understanding the academic program (.369), and avoiding procrastination (.229).

The researcher analyzed perceptions by school (see Table 4). She found that the majority of the 873 students in traditionally and nontraditionally delivered courses perceived no or minimal difference in the emphasis on the faith mission of the subject university.

Table 4

Student Perceptions of Mission in Distance and Face-to-Face Courses, by Schools (N = 383)

School	None	Minimal	Some	Many
Arts and sciences	102	101	56	37
Education	73	76	34	19
Graduate	67	78	28	24
Professional studies	39	52	22	19
Theology/ministry	22	9	11	4

Equivalency Theory Applied to Null Hypothesis 2

Again, Casarotti et al. (2002) summarized the mathematical the equivalency theory of learning, using the formula $\Sigma(\text{TC}) e_i + e_l + e_m = \Sigma(\text{DL}) e_i + e_l + e_m$, where "TC = traditional classroom, DL = distance learning, e_i = learning experiences, e_l = social interaction, e_m = practical activities" (p. 3). In other words, the sum of the traditional classroom learning experience, social interactions, and practical activities are equal to the sum of the distance learning or DL classroom learning experience, social interactions, and practical activities. A nondirectional or null hypothesis was applied to the data. The significant attributes within each category were used, along with perception frequencies. Null Hypothesis 2 was not rejected, as the sum of the attributes was equal between the traditional and nontraditional groups. A summary of attributes for equivalency is found in Table 5.

Table 5

Summary of Equivalency Determinants for Research Question 2

Attribute	Traditional	Nontraditional
Classroom	8	12
Practical	7	8
Social	7	2

Results Pertaining to Research Question 3

This question asked, Was the university mission perceived equivalently among full-time and adjunct faculty? Null Hypothesis 3 stated, No difference exists in the mission perception of full-time and adjunct faculty. A full-time faculty member was

defined as one who was employed with benefits and was teaching primarily at the traditional level. Faculty respondent data were divided between those indicating tradition as baccalaureate level and FTF delivery format and nontraditional as the DE or hybrid delivery modes. Data of respondents who indicated teaching at the graduate level or both on and off the main campus were retained.

An independent t test was used to compare full-time traditional and nontraditional faculty responses. Thus, the grouping variable was by respondent level, and a cut-off point of 2 defined the groups. An adjunct faculty member was hired one time or repeatedly to teach a course to be delivered in any delivery format. Of the full-time FTF traditional faculty, 73 responses were collected in the online data-collection phase and were used for establishing the benchmark comparison for part-time and adjunct mission responses. A total of 8 faculty members reported 100% of their teaching was FTF off campus, and 8 faculty members reported teaching FTF both on and off campus 100% of the time. Similarly, 8 faculty members reported 100% of their teaching time to be delivered via DE, and 20 reported teaching in the hybrid mode.

Online survey responses for 52 traditional full-time faculty members (Group 1) were calculated as means and standard deviation and then compared to the responses of 66 adjunct (Group 2) responses using independent t -test analysis. As in the first 2 research questions, mission perception was the dependent variable; faculty status was the independent variable. The researcher developed a table to compare perception results that included means, standard deviations, and variable t -test scores (equal variances not assumed) of full-time and adjunct faculty (see Appendix K). Descriptive statistics of perception are summarized in Table 6.

Table 6

Faculty Perceptions of Mission in Distance Education, Hybrid, and Face-to-Face Courses

Modes	None	Minimal	Some	Many
Traditional	32	13	11	17
Hybrid	7	5	3	4
Nontraditional	17	33	11	8

Note. $N = 117$.

For the nontraditional faculty, 24 attributes were higher. All but three of the t -test scores for mission attributes failed to reject the null as each were less than the critical t -test score of 2.0 (.05 significance, 95% CI, 60 df , equal variances not assumed). Those that exceeded the critical t -test score were social attributes: abstaining from alcohol and drug use, participating in leadership activities, and sharing the good news of Christ. The raw data regarding the perceptions of mission of faculty members engaged in FTF instruction were compared to those delivering DE instruction. The results demonstrated that, of the 104 faculty members, 20 of them (19.23%) perceived no difference, 37 of them (35.58%) perceived minimal differences, 22 of them (21.15%) perceived a number of differences, and 25 of them (24.04%) perceived many differences. A comparison of no difference in mission perception in FTF and DE delivery between full-time and adjunct faculty showed that 32 full-time faculty (43.84%) and 12 part-time faculty (27.27%) perceived no difference.

Using multivariate factor analysis and principle component extraction, 25 iterations, and varimax rotation of the correlations of traditional and nontraditional faculty perceptions produced results (see Appendix L). Out of a possible 58 mission-related behaviors, only 6 behaviors (1 classroom, 5 practical, and 0 social) factored as being related to formulating the mission perception of many differences in DE and FTF

instruction among full-time traditional faculty. These accounted for 98.78% of the variance: learning about liberal arts tradition (.924), using the library information system (.875), developing a daily devotional life (.680), committing to spiritual development (.779), accessing the campus intranet (.829), and making wise choices (.815).

Due to a tie, 10 components (5 classroom, 3 practical, and 2 social) factored as being related to formulating the mission perception of minimal difference with DE and FTF instruction among adjunct faculty. These accounted for 99.07% of the variance: practicing ethical scholarship tied with being a credible Christian witness (.966), using the computer for word processing (.734), setting goals (.687), knowing financial aid requirements (.613), attending chapel regularly (.665), thinking critically (.521), avoiding academic probation (.447), avoiding procrastination (.422), and reading the catalog (.340).

Equivalency Theory Applied to Null Hypothesis 3

Of the 58 mission-related attributes, only 3 demonstrated support for rejecting Null Hypothesis 3, and 48 supported failing to reject. However, an unequal number of behaviors remained in the final equation sum as defined by equivalency theory (see Table 7). Null Hypothesis 3 was rejected.

Table 7

Summary of Equivalency Determinants for Research Question 3

Attribute	FT faculty	ADJ faculty
Classroom	24	24
Practical	16	16
Social	18	15

Note. FT = full-time; ADJ = adjunct.

Results Pertaining to Research Question 4

This question asked, Did the mission component of the end-of-course survey used by the graduate school reflect the same degree of mission achievement as the undergraduate mission survey? Null Hypothesis 4 stated, No difference exists in the results of the mission component of the end-of-course survey and the undergraduate mission survey. To answer this research question, the researcher compared the mean score of mission component questions on the end-of-course survey (used in the graduate school) to the mean nontraditional student score on the traditional mission survey. As the groups were of unequal size and as SPSS is not fully equipped to pool the variance (undergraduate at .389, graduate at .033), the independent *t* test was hand calculated.

The mean of the mission perception among 557 traditional respondents was 4.72 (*SD* = .618). As calculated in Excel, the mean of the 1,976 respondents on the graduate school end-of-course survey was 5.07 (*SD* = .15). The end-of-course survey for the graduate school had a 6-point Likert scale in which 1 was *strongly disagree*, 3 was *neither agree nor disagree*, and 5 was *strongly agree*. The mission survey for the undergraduate program had a 7-point Likert scale in which 0 was *no opinion*, 1 was *very unimportant*, 2 was *unimportant*, 3 was *somewhat unimportant*, 4 was *somewhat important*, 5 was *important*, 6 was *very important*. Because the Likert scales of the two surveys differed, the neutral category on the graduate school end-of-course survey was relabeled from 3 to 0 and the category of does not apply was labeled 0 to match the modified categories in the traditional mission survey. The graduate school end-of-course survey categories of *agree* and *strongly agree* (4 and 5, respectively) were relabeled to 5 and 6 respectively, thus rendering equal distribution to the positive and negative opinion

categories for both surveys.

A bivariate distribution demonstrated a significant difference in the t -test result for this convenience subject sample. The critical t -test value was manually calculated to be 2.015 (.05 significance, 95% CI, 60 df), and the calculated t -test score was -2.63 (Group 1, 3 questions, 1 df and Group 2, 58 questions, 2 df). Null Hypothesis 4 was neither accepted nor rejected, as the mission component of the end-of-course survey reflected significant differences in the measurement of mission achievement by the two surveys. Therefore, additional analysis was not conducted between selected departments and tracks.

Summary

The researcher focused on providing the answer to four research questions related to the perceptions of the mission of faculty members and students engaged in various modes on instruction. In chapter 4, the researcher reported the data's statistical findings from three distinct data pools, one of which served as the benchmark comparison. The mean scores of group responses from traditional, continuing studies, and graduate students enrolled in FTF, DE, or hybrid programs were used to calculate preliminary answers to the four research questions. Factor analysis provided additional analysis within each of the respondent and delivery categories. Results were then used in an equivalency equation in accordance with equivalency theory of learning outcomes achieved via various instructional modes. A thorough discussion and analysis of the study results are presented in chapter 5.

Chapter 5: Discussion

Introduction

The researcher focused on answering four research questions related to the effective integration of the university mission in courses and programs using DE, hybrid, and FTF modes of instruction. Faculty and students were surveyed to determine whether this was the case. The student population changed significantly with the expansion of the graduate school to include distance courses. The object was for students, whether taking distance or FTF courses, to be fully immersed in the faith mission and, thus, for all courses regardless of delivery mode, to be designed to enable students to reach this end. Although every student may choose to spend time on the campus, selection of distance courses may imply limited exposure to the FTF campus setting.

The university's biblical values and ideals are described in the denomination's church manual. According to the author of the mission survey, the values and ideals were translated into 58 attributes or behaviors by committee effort in 1999. The attributes were then measured by the survey. The survey was used extensively in from 2001 to 2005 and the results were used as benchmark data for comparison with the data generated in this study. The researcher discussed findings from the results of the mission survey and end-of-course as they pertained to the research questions.

Interpretation of Results for Research Question 1

The first research question asked, Did students perceive that the university mission was equally integrated into course content and instruction regardless of the delivery mode (100% distance, hybrid, and FTF)? The two types of students were traditional classroom (FTF) and nontraditional distance students (DE, hybrid, off-campus FTF, and on- and off-campus FTF). The descriptive statistics indicated minimal

variation in students' perceptions of a difference in how the mission was conveyed between distance and FTF courses. The majority of traditional students (41.62%) stated that they perceived no difference in how the mission was conveyed in distance and FTF courses. The majority of students in off-campus FTF courses (47.22%), in hybrid courses (37.5%), and in FTF courses delivered both on and off campus (33.33%) agreed. The majority of students in DE courses perceived no difference (37.5%) or minimal difference in mission (38.54%) as conveyed in distance versus FTF courses.

Results of the *t* test for the current traditional students showed that, of the 58 mission-related behaviors, 22 behaviors (8 classroom, 7 practical, 7 social) were significant when compared to those of the benchmark group. Similarly, *t*-test results for the DE students showed that 21 behaviors (13 classroom, 6 practical, 2 social) were significant when compared to those of the benchmark group, and *t*-test results for the students in hybrid courses showed that 24 behaviors (17 classroom, 4 practical, 3 social) were significant when compared to those of the benchmark group. Although none of the three groups of students showed full equivalency with the benchmark control group, the group in hybrid courses was closest. The three groups combined were more equivalent to the benchmark control group. Three of the mission behaviors were significant for all three of the groups: selecting an academic advisor, managing time appropriately, and tracking personal academic progress.

Factor analysis was used to isolate the mission behaviors as factors that had the most impact on the perceptions the three student groups. Of a possible 58 mission-related behaviors, 14 of them had an impact on the traditional group (8 classroom, 5 practical, 1 social), 10 behaviors had an impact on the DE group (6 classroom, 2 practical, 2 social), and 8 behaviors had an impact on the hybrid group (3 classroom, 4 practical, 1 social).

No mission behaviors were common to all three groups; however, 3 behaviors were common to two groups: sending e-mail (hybrid and FTF), understanding academic standing (hybrid and FTF), and using the library information system (DE and FTF).

When the researcher analyzed descriptive statistics, significance testing, and factor analysis, she found that students enrolled in DE, hybrid, FTF courses perceived that mission was promulgated in a slightly different manner in the three types of courses. Furthermore, none of the groups were significantly similar to the benchmark group in valuing mission behaviors. The collective results were more like the benchmark group, which finding might well represent the homogenous results of liberal arts. The results of the *t* tests for significance of the perceptions of the collective group as compared to those of the benchmark group, versus the factor analysis of mission-related behaviors showed a disparity in meaningful mission-related behaviors. Although students expressed an answer to a question, few questions from the mission survey were directly related to forming mission perceptions in the FTF and DE courses. No behaviors were related to mission perceptions in FTF and DE courses and instruction for all three groups of students. Null Hypothesis 1 was rejected.

Interpretation of Results for Research Question 2

The second research question asked, Was the university mission perceived equivalently among traditional and nontraditional students? The descriptive statistics indicated a 6.59% difference in the perception of mission as conveyed through DE versus FTF courses by traditional classroom and nontraditional distance students. Again, the majority of traditional FTF students (41.62%) stated that they perceived no difference in mission content in DE and FTF courses. The majority of nontraditional students (DE, hybrid, off-campus FTF, and on- and off-campus FTF), or 35.03% of them, collectively

perceived no difference in mission content in courses that used nontraditional and traditional modes of delivery.

Results of the *t* test for the current FTF traditional students showed that, of the 58 mission-related behaviors, 22 behaviors (8 classroom, 7 practical, 7 social) were significant when compared to those of the benchmark group. Results of the *t* test for the nontraditional students combined (DE, hybrid, off-campus FTF, and on- and off-campus FTF) also showed that 20 behaviors (12 classroom, 6 practical, and 2 social) were significant when compared to those of the benchmark group. As in Research Question 1, the perceptions of traditional and nontraditional groups of students were more equivalent than the perceptions of either was with those of the benchmark control group. According to *t*-test results, 6 of the mission behaviors were significant for the traditional and nontraditional groups of students: learning about faculty credentials, understanding academic standing, understanding satisfactory progress, computing a GPA, using the library information system, and sending e-mail.

Factor analysis was used to isolate the mission behaviors as factors having the most impact on the perceptions of mission of the traditional and nontraditional groups. A total of 14 behaviors (8 classroom, 5 practical, 1 social) for the traditional group, and 12 behaviors (7 classroom, 4 practical, 1 social) for the nontraditional group were related to mission perceptions. Only two mission behaviors were common to both traditional and nontraditional groups: knowing financial aid requirements and sending e-mail.

When the researcher studied descriptive statistics, significance testing, and factor analysis, she found that traditional and nontraditional groups of students perceived that mission content was promulgated differently. Furthermore, the groups were significantly dissimilar to the benchmark control group for valuing mission behaviors. The results of

the t tests for significance of the traditional and nontraditional student groups as compared to the benchmark group, versus the factor analysis of mission-related behaviors showed a disparity in the meaningful mission-related behaviors. Data showed that only two survey questions or behaviors factored as contributing to perceptions of the mission or being directly related to the formation of perceptions of mission by respondents in the FTF versus DE courses.

Chen, Gonyea, and Kuh (2008) provided their findings about distance and campus-based learners:

Descriptive analyses confirmed what others have noted. . . . Distance and campus-based learners differ in their biographical and academic characteristics. More than two-fifths (44%) of first-year and half of the senior distance education learners were enrolled part-time compared with only 4% of first-year and 13% of senior campus-based learners. Distance learners also were older, with median ages of 25 and 32 for first-year students and seniors, respectively, compared to 18 and 22 for campus-based first-year and senior students. More distance learners reported earning A or A- average grades than campus-based students. Also, distance learners spent more time caring for dependents and working off campus. (¶ 9)

Although the learners in courses delivered by different modes of instruction might enter and exit the university with different behaviors, their mission perceptions were similar. Null Hypothesis 2 was not rejected based on the equivalency theory and the sum of the classroom, practical, and social behaviors.

Interpretation of Results for Research Question 3

The third research question asked, Was the university mission perceived equivalently among full-time and adjunct faculty? Based on the results of the independent t tests for significance in the responses of full-time and adjunct faculty, the groups were nearly identical. Only three behaviors, all of which were social, were different.

The behaviors that factored as being related to the perception of many differences between perceptions of the mission were different for the two faculty groups who taught DE

and FTF courses. The researcher found 6 factors that described the results of the full-time group and 10 factors that described the results of the adjunct faculty group. The near equivalency of the two faculty groups indicated that faculty as a whole were well aligned with the university mission. Null Hypothesis 3 was accepted based on equivalency theory and the sum of the classroom, practical, and social behaviors.

Interpretation of Results for Research Question 4

The fourth research question asked, Did the mission component of the end-of-course survey reflect the same degree of mission achievement as the mission survey? These data showed no equivalent measure between the mission survey used for the traditional students and the three mission questions on the end-of-course survey. No further statistical analysis was accomplished regarding the equivalency of the two surveys for reporting mission outcomes. Therefore, Null Hypothesis 4 was neither accepted nor rejected.

Findings Related to the Literature

Based on the results related to all four research questions, the researcher drew several conclusions. First, she found a difference in mission perceptions among students engaged in courses having various delivery formats. Although close, the number of students in DE courses who perceived no difference from FTF and DE delivery was lower than the number of students enrolled in courses using the other delivery formats. The difference in mission perceptions might reflect a desire to be a part of the Christian university's physical environment best achieved by the hybrid or blended delivery model (Barosso & Cabranes, 2006). Reduced mission perceptions might also reflect a belief that the mission could and should have been fulfilled in a stronger manner. The Center for Public Justice (2006) faith-based institutions issued this caution concerning faith-based

institutions:

But note well: a faith-based organization can easily get off course. . . . Often organizations lose their way all on their own, by not cultivating a living faith, by not connecting practices and policies to the supposed religious mission, [and] by giving in to inappropriate professional or commonly accepted standards that go against fundamental convictions. (§ 2)

Because the majority of DE programs at the subject university were offered through the graduate school, guarding distance outcomes was especially important. This finding led to the second conclusion. The significant behaviors that students perceived to be related to mission were different for each delivery group. This finding pointed to a need to determine the most meaningful behaviors for current students in courses using each of the three delivery modes to help measure this important outcome. As perception is highly individualistic, asking students to identify and label early in their enrollment behaviors that could cause them to say that mission behaviors were fully integrated into the course might provide a paired result for testing the significance of the mission outcome: Some students might perceive achieving academic excellence as achieving a mission behavior. Conversely, Pike, Kuh, and Gonyea (2003) found, "Research on the relationships between institutional mission and learning outcomes has produced either inconclusive or similar results" (p. 242). Rogers (2005) concluded that clarity regarding the institutional mission is dependent upon the leader's ability to "promote a common understanding of the campus community's organizational culture" (p. 177).

Perhaps the approach taken by Barosso and Cabranes (2006) of identifying student preferences with delivery formats would assist with discovering the best mission conveyance methods. They designed their methodology to detect preferences for learning methods based on the delivery strategies used, notably blended learning and e-learning:

The need for human contact and face to face teaching are indicated as being

the main disadvantages of distance learning. Face to face learning methods continue to be preferred by those who are searching not only for new knowledge, but also new friendships and direct contact with the teacher/tutor. The tutor continues to be seen as a trustworthy and reliable element of the process of education, with this new role being underestimated by some of the students. Of the distance learning methods, it was found that b-Learning [blended learning] was preferred over e-Learning [electronic learning] exactly because of the lack of the human dimension in e-Learning. Most of the students that thought that distance learning methods were the ones that best fit their needs chose b-Learning. The comfort, easy schedules and the flexibility of distance learning, together with the possibility of face to face relationships, personal knowledge and human warmth, shows that b-Learning was the preferred method for most of the participants [$n = 30$]. (p. 5)

A third conclusion was that the combined data from FTF, DE, and hybrid groups were more like the traditional FTF data than any of the data for individual groups. As in system's theory, institutional mission might be best measured by considering the whole as the sum of its parts with mission congruence at each level increasing the qualitative sum. Perhaps delivery-specific data found in the present study might be used as benchmark data for future comparison.

For the fourth conclusion, the researcher found that the results showed that the full-time and adjunct faculty respondents were much more alike than different concerning their perceptions of mission and their values regarding mission behaviors. This finding indicated that all faculty members might interact with all their students similarly in conveying the mission of the subject university. This finding supported (a) Standard II of the accreditation criteria that addresses faculty accountability and quality assurance regarding program and variations in delivery modes (National Council for Accreditation of Teacher Education, 2006b) and (b) the best practices published by the Higher Learning Commission of the North Central Accreditation (National Council for Accreditation of Teacher Education, 2006a).

The first best practice addresses mission through a series of institutional

assessment statements and questions (National Council for Accreditation of Teacher Education, 2006a). The questions explore the need for the DE student to have sufficient access to the learning environment and the obligation of the institution to the DE student as undifferentiated from the traditional FTF student. The results of the present study provided some evidence that the program was consistent with the role and mission of the institution including its goals with regard to student access.

A variable number of full-time administrators and faculty members had contracts to teach graduate school courses beyond their workload. This factor might have had an impact on their promulgating the mission and was a consideration not controlled in this study.

A fifth conclusion was that the mission-related questions on the end-of-course survey for the graduate school do not adequately measure the university mission in this very important group of students and faculty who primarily meet in virtual classrooms or off site. The survey has only three items pertaining to the mission that are phrased summarily. Establishing an electronic culture, known as e-culture, that fully captures the university mission is essential (Meyer, 2005). Kuh and Gonyea (2005) noted the benefit of student perception of mission being in agreement with the denomination's values and beliefs. These two researchers pointed out that the mission is important to faith-based institutions because

mission and campus culture matter more to spirituality and liberal learning outcomes than most other institutional characteristics. Students who view the out-of-class climate as supportive of their social and nonacademic needs reported greater gains in all of the outcomes on the NSSE [National Survey of Student Engagement] survey, including a deepened sense of spirituality. (p. 7)

Implications of Findings

The importance of faculty alignment with the mission was reinforced by the findings of the present study. Calculating the strength of the impact of faculty members

on mission maintenance may be difficult to quantify. Nevertheless, their agreement with the mission is essential for students to gain a strong sense of the mission. This finding coincides with that reported by Baron-Nixon (2007) who further cautioned that adjunct faculty may compromise an institution's mission being achieved. During the interview and selection processes, prospective faculty members undergo intense scrutiny to ensure that they are committed to and willing to assimilate the university's mission in their daily lives; indeed this commitment is as true for full-time faculty as it is for adjunct faculty in teaching classroom and distance courses. Results of the present study showed that faculty members who taught in the traditional track were more like their colleagues who taught in both the traditional and nontraditional tracks than those who taught in the nontraditional tracks only. This finding indicated that conveying the faith mission to students in the graduate school was more strongly perceived when the faculty member also taught in the nontraditional track. Great care should be taken to ensure the quality of the educator as the means to achieve quality education of the institution's students (Baron-Nixon, 2007).

A routine, thorough review of all online syllabi and course content for effective learning strategies should refresh and refine opportunities for students to synthesize, create, and problem solve, as well as to apply the mission in their career field. Martin (2003) articulated how a student learns: Learning occurs through transmission, acquisition, accretion, and emergence. The transmission of information as knowledge, ideas, and skills occurs through purposive telling, demonstration, and guidance and is estimated to be 10% of acquired learning. Acquisition, on the other hand, accounts for about 20% of what is learned and is learning through conscious choice. This type of learning is acquired through exploration, experimenting, self-instruction, inquiry, or general curiosity. Learning by accretion is a subliminal or subconscious process to gain

abilities like language, culture, biases, habits, and socially accepted behavior or respect for rules. This type of learning represents 70% of what an individual learns.

Emergence results from patterning, structuring, and coconstructing ideas not previously held that emerge from the brain through reflection, insight, and creative expression or through group interactions. From the internal capacity for synthesis, creativity, intuition, wisdom, and problem solving flow emergence. The influences on emergence are dependent on the allocation of time and opportunities to reflect and construct new knowledge (Martin, 2003). Building on Martin's (2003) explanation of learning, the researcher found that results of the present study indicated that perceptions of the mission occur regardless of the delivery format or setting in which learning takes place. Learning, however, is dependent upon the strategies used.

Developing a specific tool to measure mission achievement in the graduate school might assist the staff in gathering data among students and might result in data to improve the service and the commitment of faculty and students to the subject university's faith mission. Implementing an evaluation of department and school-based missions might help isolate general gaps in integrating and conveying mission content in instruction regardless of delivery mode. Targeted remedies might be planned and implemented. Given the continued expansion of distance programs and services in the graduate school, ensuring mission alignment of these programs must remain a priority.

The mission survey should be redesigned based on the current generational perceptions of what the mission means to the members and how that translates into the mission being effectively integrated into courses and instruction. The methodology of this study was perhaps more complicated than necessary. The frequencies and descriptive statistics may sufficiently describe the critical components of mission measurement.

Possibly helpful for outcome purposes may be validating mission questions as fitting into one of three outcome categories (classroom, practical, and social), as described in equivalency theory. As generational differences and trends are detected almost yearly, an increase of the frequency of validating mission-related measures may prove helpful.

The comments on the mission survey netted some key pieces of information for consideration. One comment addressed dissatisfaction with accommodating for a disability, but most addressed the Christian mission. Some comments were positive; most comments were negative. One participant made this extended comment:

I see the mission statement as very noble in its goals. Furthermore, I think the faculty embraces and promotes these values. However, generally I do not think that the religious aspect of a commitment to humanity, education, bettering the world, etc. is needed to promote these goals. One can internalize and value these codes without religion to tell you to do so. A critical, compassionate thinker should ultimately come to the conclusion that these values are important if their objective is to better themselves, their communities, and the world in general. If one needs a religion or any other forms of dogma to determine this for them, I think it takes away from a genuine and deep understanding of these values.

Nine other respondents provided comments on the present study of the university's mission:

1. "I have taken two classes here online, and one somewhere else online. The profs here interjected Christ frequently, whereas the secular institution did not."
2. "The differences in the professors are drastic, and there needs to be more quality control."
3. "I have only had FTF courses, . . . but I have found that many of the instructors have more than one face. And that is not a compliment."
4. "Face-to-face is much more effective because we get to pray before each class."
5. "Many instructors did not observe the reflection period before class started. That was fine with me. What I did not appreciate was that many instructors did not begin

the class on time and had issues with getting to the cohort location on time."

6. "I perceive the mission to be the same in both programs, but I doubt that the spiritual aspects of the mission are accomplished as well in the distance learning program."

7. "I feel that people taking classes off campus do not matter as much as people taking courses on campus; this is just my perception."

8. "The mission probably plays no role in what the school is and does at any level."

9. "I am not personally involved with the distance-delivered courses, but would think that the spiritual impact would be considerably less in this format."

A participating faculty member made these extended comments about support needs for and effectiveness of DE courses:

I completed certification to teach online classes, have not taught one--but the techniques acquired have been helpful in the electronic communication with students of on-site classes. I believe that some classes taught by adjunct faculty do not have quality class devotional comments, or involve spiritual components in the various subjects being taught. . . . It [teaching] is to be different, operating with a Christian purpose--it should be so. . . . Younger faculty and "hybrid faculty" should be tutored in those areas and the spiritual component required. . . . From the certification class, it was demonstrated that all of these components could be incorporated in the online approach. But, it would take camera hookup to fine tune eye contact, the immediacy of expression (voice/face/body). But online instructors say these are not necessary OR other techniques can be used to substitute for the absence. . . . I found the detailed responses were limited and serious discussion tended to be minimal--that being said, it need not be so. The instructor still holds the key to online and on-site quality assurance.

Limitations of the Study

Although the study methodology may be replicated, the tools for mission measurement must be mission specific and site specific, tested for validity and reliability, routinely modified for generational practice and paradigm shifts, and generally monitored

for practicality. For example, technology may not be associated with achieving a spiritual mission but rather with an academic mission or achievement; however, students may not view technology as a separate entity. The results of this study, therefore, are limited to the study setting only.

In retrospect, the question that pertained to the amount of time the students spent in locations and delivery formats needed to be more explicit. Clarity might have been gained if the question was divided into separate questions regarding percentage of involvement (to equal 100%), or to a specific number of courses or credit hours (in relation to total credits) spent in the various delivery formats. Other demographic information items that might be included should be the participants' degree of commitment to the mission and their denominational preference. Additionally, asking whether the student's sense of mission was generally strengthened, weakened, or unmoved by the educational experience at the subject university might have proved beneficial. The student and faculty members engaged in hybrid courses--whose FTF portion was conducted on or off campus, or both--may be the most reliable population to determine whether the subject university's mission was effectively achieved and to determine the contributing factors in each of the delivery formats.

Respondents, particularly student respondents, may not have clearly differentiated between the traditional undergraduate program and the baccalaureate degree completion program and, thus, skewed the results. Faculty in the smaller departments within the traditional program might have quit responding to the survey when asked to identify their department; indeed, several alluded to that in their comments. Information asked on the survey that was not necessary was the family situation of the respondent and the number of hours employed. The section requesting the percentage of each delivery mode in the

student's class load and in the faculty's workload should have allowed comments in the other section for clarification and insertion of data into categories.

The survey might be modified to include the perception of qualitative differences between FTF and distance modes of delivery. Examples of ratings of qualitative differences might include these choices: minimal positive differences between DE and FTF modes, a number of positive differences, many positive differences, many negative differences, a number of negative differences, and minimal negative differences. This would help administrators to further define mission perception.

A number of full-time administrators and faculty members had contracts to teach graduate school courses beyond their workload. Their teaching might have had a positive or negative impact on their promulgation of mission content. However, this consideration was not controlled in the present study. The possibility of future effects on students and measuring the outcome was a limitation of this study but represented a legitimate aspect for outcomes measurement.

Recommendations for Further Research

The importance of mission management was highlighted in the findings of the National Survey of Student Engagement and the Project Dorchester Educational Enrichment Program. The researchers sought to understand the student engagement practices of 20 strong performing institutions of higher education (Kuh, Kinzie, Schuh, Whitt, & Associates, 2005). Many of the key lessons learned in the project regarding the essential ingredients for student success were strongly mission oriented. According to Kuh and Gonyea (2006), three lessons specifically pertained to mission and spirituality:

1. "Students who frequently engage in spirituality enhancing practices also participate more in a broad cross-section of collegiate activities" (p. 44).

2. "Institutional mission and campus culture matter more to spirituality and liberal learning outcomes than most other institutional characteristics" (p. 46).

3. "Students at faith-based colleges engage in spiritual practices more and gain more in this area, but participate less often in certain other activities associated with liberal education outcomes" (p. 46).

The practical aspects of equivalency theory and its useful application are yet to be tested and expanded through qualitative and quantitative research. The accurate use of the equivalency categories to compare learning outcomes of distance and FTF courses was perhaps the strongest assumption of this study and warrants further research. As a research framework, equivalency theory may help define the research activities to produce specific outputs. Used consistently for mission measurement, factor analysis may prove beneficial for institutions of higher learning in identifying constituency preferences for practical mission fulfillment and may be refined through confirmatory factor analysis. The results of factor analysis may be used to identify and possibly categorize mission behaviors into each of the three equivalency categories--classroom, social, and practical activities--through factor analysis of principle components. The benefits of such categories might produce a balanced approach to highly individualized institutional mission achievement and management.

Recommendations for Practice

The recommendations for practice are quietly embedded in the results of this study. Perceptual variations were evident in the data for the various delivery formats. As the two surveys proved incomparable in their measurement of mission achievement, the results pointed to the need for one comprehensive survey to measure mission outcome. Additionally, achieving the mission in the various learning formats of courses taught by

adjunct faculty may indeed be a major challenge of faith-based institutions of higher education.

The subject university may benefit from a periodic and thorough (a) identification of the online and classroom behaviors deemed mission essential by various stakeholders and (b) modification of the mission survey accordingly. Possibly, institutional research needs could be met through the use of graduate students as research assistants, in exchange for their graduate education. An updated listing of the classroom, practical, and social behaviors (distance and FTF) that are associated with effectively achieving the mission could be devised through an open-ended, qualitative line of questioning. Factor analysis could be used to determine the strongest indicators for achieving the mission among students and faculty engaged in courses having various delivery formats. Paired *t* tests might be yet another approach enabling each student to identify the meaning of the mission at the entrance and exit points.

Using the results, researchers might develop an institutional mission map. Mapping the mission for each of the delivery methods might begin with a comprehensive look at faculty hiring, student marketing and admission processes, and course learning activities, the purpose being to recognize gaps and insert mission essential behaviors and activities. Creating equitable mission strategies for the delivery methods might be a challenge as well as an area of further study. This strategy would move planning for intentionally achieving the mission into a more scientific practice both in and outside the classroom and would be especially important for the online learning community.

Mapping mission achievement strategies in an exhaustive fashion might serve as an effective outcome measurement tool. For example, the need to attend to effectively achieving the mission among faculty was evident in some of the responder comments

regarding the lack of mission behaviors among adjunct faculty. Conveying the mission in every part of academic work was something full-time faculty members grappled with in a faculty meeting in 2007 when J. Kinzie, the associate director of the National Survey of Student Engagement at Indiana University, spoke on campus. Regarding educators and the learning environment, Kinzie advised, "Be concerned . . . in and outside the classroom, sociocultural aspects and physical settings in which students interact with peers, the content, educators and others, and the implementation of strategies that help guide the student toward the intended outcomes."

How adjunct faculty members are exposed to the same rigor of mission expectation and given the same support should be mapped and measured. For outcome purposes, developing a measure that is consistent for the values, beliefs, and standards for the mission of this Christian institution of higher education may prove useful. Added to that should be discipline-specific metrics for measuring program quality and mission achievement. These might include job rates, employer satisfaction, and pass rates on national licensure exam.

Students and faculty who choose the university primarily for its mission may demand that the university fulfill its mission and be critical when some perceive that the mission is no longer effectively achieved. Mission achievement may be reflected in a very few select behaviors or be broadly defined by actions and outcomes. Gonyea and Kuh (2006) found that respondents of faith-based institutions of higher education generally scored the highest for worship, spiritual growth, and ethical behaviors. They reported, "The findings indicate religiously affiliated colleges and universities are not all alike and that there is more to learn about how institutional mission and environments influence student engagement and learning" (p. 2).

Finally, no substitute exists for asking the hard questions that will reach to the heart of a problem or validate that no problem exists. Faculty members have expressed concern that the university mission is being sacrificed for expansion of online delivery and the extensive use of adjunct faculty members. A method should be devised and put into place for routinely determining the behaviors that most reflect mission achievement among the university stakeholders and for measuring the perception or exhibition of those behaviors. Because the churches and university are well networked, an electronic survey within the university's educational zone could easily serve the purpose. Electronic surveys are an efficient method of data gathering (Klass & Baggaley, 2003).

Carini, Hayek, Kuh, Kennedy, and Ouimet (2003) cautioned that online data should not be the sole source of information:

We examined the responses of 58,288 college students to 8 scales involving 53 items from the NSSE to gauge whether individuals respond differently to surveys administered via the Web and paper. Multivariate regression analyses indicated that mode effects were generally small. However, students who completed the Web-based survey responded more favorably than on paper on all 8 scales. These patterns generally held for both women and men, and younger and older students. Interestingly, the largest effect was found for a scale of items involving computing and information technology. (p. 1)

The 43.7% return rate, or 267 respondents, for all of the 611 master and doctoral students who accounted for 93% of the subject university's online students was possibly a reflection of the comfort level with the survey's online format.

Comments and Conclusion

On the eve of the subject university's centennial year, the university president stated, "If we let our spiritual authenticity wane, that will kill us." The ability of an institution to adhere to its mission is dependent upon each person involved in the delivery of any service. Maintaining sensitive communication with the constituency is critical to

obtaining the data needed for learning and understanding perceptions and modifying the service-to-customer interface. This study employed a methodology by which a faith-based institution may measure the degree of achievement of a mission and indicated a method for determining outcomes to which equivalency theory may be applied. The use of descriptive statistics, comparisons of subgroup perceptions of mission-related classroom, practical, and social behaviors through the use of *t* tests, along with multivariate factor analysis may assist the university researcher to speak to mission outcomes for accreditation purposes.

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Appendix A

Learner End-of-Course Survey

Graduate School Learner End-of-Course Survey

Date: _____ Course Title: _____ Cohort Number: _____

Course: Online ____ On-the-ground Location: _____ Faculty Name: _____

Student: Name (optional): _____ E-mail Address (optional): _____

Please indicate your level of agreement or disagreement to each of the statements according to the scale.

0 was Does Not Apply

3 was Neither Agree nor Disagree

1 was Strongly Disagree

4 was Agree

2 was Disagree

5 was Strongly Agree

Foundations

1. My instructor was qualified to teach the course.
2. My instructor explained course concepts clearly.
3. My instructor provided a syllabus that had course assignments and due dates.
4. My instructor presented the criteria (rubrics) used for grading each assignment before each assignment was due.
5. My instructor consistently followed the grading criteria (rubrics) across all assignments.
6. My instructor provided feedback (written or verbal) on assignments within seven days of assignment submission or by the next scheduled class (for courses that meet every 2 weeks or greater).
7. My instructor started and ended class according to the scheduled hours and days for the class.
8. (Online only) My instructor facilitated discussion on the discussion board 5/7 days per week.
9. My instructor answered my e-mail messages within 48 hours or less.
10. My team grade was kept confidential from other team members.

Christ-Centered Character

11. The class was conducted in a Christian environment.
12. I was treated respectfully in this course.
13. My questions were answered in a positive and respectful manner.

Professionalism

14. My instructor showed enthusiasm for the course.
15. My instructor demonstrated good listening skills.
16. The feedback on my assignments included enough detail to help me learn.
17. My instructor managed team problems promptly.
18. I was offered a method to evaluate the effectiveness of the members of my team.
19. My instructor used my team evaluation in grading individual team members' work.

Curriculum

20. I was able to achieve the course objectives.
21. The textbook contributed to my ability to achieve the course objectives.
22. My instructor provided real-life examples of concepts in the course.
23. I was able to keep up with the assignments.
24. My time was used efficiently in the course.
25. The homework assigned in the course was meaningful.

Administrative

26. The classroom was the right size for the class.
27. The classroom was a comfortable temperature.
28. I received my course grades within 2 weeks after course completion.
29. I received prompt assistance with technology issues.
30. My books and materials were posted on Blackboard at least 2 weeks prior to class start.
31. Overall, this course met my learning needs.

COMMENTS: Please make any other comments below.

Note. Adapted with permission of the subject university.

Appendix B
Mission Survey and
Summary of Equivalency Categories

Mission and Demographic Survey and Summary of Equivalency Categories

Your anonymous and voluntary participation in this survey is requested. We are interested in what you think is important to you regarding the statement, *"An Education with a Christian Purpose"* at this university. Please take a few minutes to respond to this survey. Use the following scale to let us know how important you think each item is to you. Please respond to each item.

0 was No Opinion	4 was Somewhat Important
1 was Very Unimportant	5 was Important
2 was Unimportant	6 was Very Important
3 was Somewhat Unimportant	

1.0 The Wesleyan Tradition - This section deals with information about the heritage of this university. Rate how important it is for you to:

1.1 know how the history of the school influences present policy	0	1	2	3	4	5	6
1.2 know that this is a denominational school	0	1	2	3	4	5	6
1.3 understand how the mission statement of the university affects me	0	1	2	3	4	5	6
1.4 know what it meant by a holistic education	0	1	2	3	4	5	6

2.0 Liberal Arts Education/ High Quality Instruction – This section deals with the academic programs. Rate how important it is for you to:

2.1 learn the purposes of a liberal arts education	0	1	2	3	4	5	6
2.2 learn about the liberal arts tradition	0	1	2	3	4	5	6
2.3 understand the academic programs	0	1	2	3	4	5	6
2.4 learn about faculty credentials	0	1	2	3	4	5	6

3.0 Personal Development – This section deals with personal growth. Rate how important it is for you to:

3.1 learn to make wise choices	0	1	2	3	4	5	6
3.2 understand the theological and spiritual basis for campus rules	0	1	2	3	4	5	6
3.3 value the Christian community	0	1	2	3	4	5	6
3.4 foster positive relationships	0	1	2	3	4	5	6
3.5 engage in wholesome entertainment	0	1	2	3	4	5	6
3.6 abstain from alcohol and drug use	0	1	2	3	4	5	6
3.7 participate in leadership development	0	1	2	3	4	5	6

4.0 Career and Professional Readiness – This section deals with the preparation for a career after college. Rate how important it is for you to:

4.1 read the University catalog	0	1	2	3	4	5	6
4.2 understand satisfactory scholastic standing	0	1	2	3	4	5	6
4.3 understand satisfactory progress requirements	0	1	2	3	4	5	6
4.4 avoid academic probation	0	1	2	3	4	5	6
4.5 know financial aid requirements	0	1	2	3	4	5	6
4.6 select an academic advisor	0	1	2	3	4	5	6
4.7 match career plans to courses	0	1	2	3	4	5	6
4.8 understand how to compute a grade-point average	0	1	2	3	4	5	6
4.9 understand the value of a high grade-point average	0	1	2	3	4	5	6

5.0 The Strongest Scholarship and the Deepest Piety – This section deals with the integration of faith and learning. Rate how important it is for you to:

5.1 manage your time	0	1	2	3	4	5	6
5.2 avoid procrastination	0	1	2	3	4	5	6
5.3 set goals	0	1	2	3	4	5	6
5.4 go to class	0	1	2	3	4	5	6
5.5 think critically	0	1	2	3	4	5	6
5.6 create your own study system	0	1	2	3	4	5	6
5.7 listen attentively	0	1	2	3	4	5	6
5.8 collaborate with other students	0	1	2	3	4	5	6
5.9 gain test-taking confidence	0	1	2	3	4	5	6
5.10 keep track of you academic progress	0	1	2	3	4	5	6
5.11 develop an internal locus of control	0	1	2	3	4	5	6
5.12 practice ethical scholarship	0	1	2	3	4	5	6
5.13 understand academic integrity	0	1	2	3	4	5	6
5.14 integrate faith and learning	0	1	2	3	4	5	6

6.0 Lives of Service to God and Humanity – This section deals with how you serve God and others. Rate how important it is for you to:

6.1 attend chapel regularly	0	1	2	3	4	5	6
6.2 join a small group Bible study	0	1	2	3	4	5	6
6.3. participate in campus praise and worship	0	1	2	3	4	5	6
6.4 make a commitment to your spiritual development	0	1	2	3	4	5	6
6.5 honor Christ as your personal Savior	0	1	2	3	4	5	6
6.6 share the good news of Jesus Christ	0	1	2	3	4	5	6
6.7 participate in outreach ministries	0	1	2	3	4	5	6
6.8 develop a daily devotional life	0	1	2	3	4	5	6
6.9 go to church regularly	0	1	2	3	4	5	6

7.0 In a Christian Environment – This section deals with how you participate in a Christian environment. Rate how important it is for you to:

7.1 be an avid worshiper of God 0 1 2 3 4 5 6

7.2 be a devoted friend, spiritually 0 1 2 3 4 5 6

connected to other caring believers

7.3 use your God-given spiritual gifts to 0 1 2 3 4 5 6

meet specific human needs

7.4 be a credible Christian witness in the 0 1 2 3 4 5 6

eyes of believers and nonbelievers

8.0 Technology - This section deals with technology. Rate how important it is for you to:

8.1 access the campus intranet 0 1 2 3 4 5 6

8.2 use a computer for word processing 0 1 2 3 4 5 6

8.3 find periodicals in the library 0 1 2 3 4 5 6

8.4 use the Library Information System 0 1 2 3 4 5 6

8.5 access the Internet 0 1 2 3 4 5 6

8.6 send e-mail 0 1 2 3 4 5 6

8.7 receive e-mail 0 1 2 3 4 5 6

9. Your gender is Male Female

10. Your age in years is

18-20 34-39 65-69

20-21 40-44 70-74

22 45-49 75-79

23-24 50-54 80-85

25-29 55-59

30-34 60-64

11. Your current status at the university is: Student Faculty Both

12. As a student, you are currently enrolled:

I am not a student

In a traditional baccalaureate degree program

In a baccalaureate degree completion program that accepted my associate degree credits

In a master program

In a doctoral program

Other (please specify)

1. Your major courses of study or teaching are offered through the school/college of:

Arts and Sciences

Education

Professional Studies

Graduate and Continuing Studies

Theology and Christian Ministry

Unsure

2. How long have you been at the university in your current status?

Less than 1 year

11-15 years

31-35 years

1-2 years

16-20 years

36-40 years

3-5 years

21-25 years

6-10 years

26-30 years

3. Your major undergraduate area of study or teaching is:

Accounting	Fashion Merchandising	Photography
Art	Film Studies	Physical Education/Health
Art (Education)	Finance	Physical Science
Athletic Training	Forensic Chemistry	Political Science
Biblical Studies	French	Pre-Dental
Biochemistry	General Science	Pre-Engineering
Biology	General Studies	Pre-Law
Business Administration	Geobiology	Pre-Medical Technology
Chemistry	Geochemistry	Pre-Medicine
Church Music	Geoengineering	Pre-Optometry
Clinical Laboratory Science	Geography	Pre-Pharmacy
Coaching	Geology	Pre-Physician's Assistant
Commercial Graphics	Geomathematics	Pre-Physical Therapy
Communications Studies	Greek	Pre-Seminary
Computer Engineering	Health Education	Pre-Veterinary
Computer Science	History	Production
Corporate Communication	Housing and Environmental Design	Psychology
Counseling	Hospitality	Public Policy
Criminal Justice	Information Systems	Public Relations
Cross-Cultural Ministries	Intercultural Studies	Radio
Dietetics	International Business	Recreation and Leisure Studies
Digital Media: Graphics	Journalism	Religion and Philosophy
Digital Media: Photography	Literature	Religious Studies
Digital Production	Management, Business	ROTC
Drawing and Illustration	Management, IS	Science Education
Early Childhood Education	Marketing	Secondary Education
Earth and Space Science	Mass Communication	Social Science
Economics and Finance	Mathematics	Social Science Education
Electrical Engineering	Mathematics Education	Social Work
Elementary Education	Mechanical Engineering	Sociology
English	Missions	Spanish
English Education	Music	Spanish Education
Environmental Science	Music Education	Sports Management
Exercise Science	Music Performance	Systems Programming
Family and Consumer Sciences	Not Applicable	Television/Video
Family and Consumer Sciences Education	Nursing	Theatre
	Nutrition	Unsure/Undeclared
	Painting	Writing
	Pastoral Ministry	Youth Ministry
	Philosophy and Religion	Zoology

4. As a student or faculty member, your major area of baccalaureate degree completion through the graduate school or continuing studies is:

Not applicable	Reading Endorsement Certificate
Bachelor of Business Administration	Sales and Sales Management Certificate
Bachelor of Science in Nursing	Associate Degree, Business
Bachelor of Science Practical Ministries	

5. Your student enrollment status is:

Not applicable

Full-time, traditional – living on campus, in my first degree program

Full-time, living off campus, in my first degree program

Full-time, living off campus, obtaining education beyond my first degree

Part-time, obtaining my first undergraduate degree

Obtaining my graduate degree

Obtaining my doctorate

Other (please specify)

6. My Family status is: (check all that apply)

Single, no children

Single, with children still at home

Single, with children who are grown or out of the home

Married, no children

Married, with children still at home

Married, with children who are grown or out of the home

Caring for a parent at home

Other (please specify)

7. In addition to my status at the university, my employment status is:

No employment beyond my role here

Employed working 31-39 hours per week

Employed, working less than 12 hours per week

Employed working 40-50 hours per week

Employed working 51-60 hours per week

Employed, working 13-24 hours per week

Other (please specify)

Employed working 24-30 hours per week

21. My status as a Faculty member is:

Not applicable as I am a student

Full-time in the traditional undergraduate courses

Full-time in baccalaureate degree completion courses

Part-time in the baccalaureate degree completion courses

Full-time primarily in the undergraduate courses but I teach some in the graduate level

Full-time in the master courses

Full-time in the doctoral courses

Part-time/Adjunct, primarily in the traditional undergraduate courses

Part-time/Adjunct primarily in the baccalaureate degree completion program

Part-time/Adjunct, primarily in the master program

Part-time/Adjunct, primarily in the doctoral program

Part-time/Adjunct in both the undergraduate school and graduate school levels

22. As a part-time faculty member, I have been teaching at the university for:

Not applicable as I am a student

8-10 courses, or 4-5 years

Not applicable as I am full-time

11-15 courses, or 6-9 years

1-3 courses, or less than one year

10 years or longer

4-7 courses, or 2-3 years

Other (please specify)

23. What is the approximate percent of your participation in each of the following delivery formats?

In a university classroom (on campus)

In an off-campus classroom, outside of the university's home town

Partially on campus, and partially in an off-campus classroom, outside of the university's home town

100% through the Internet / distance education

About ½ classroom somewhere, and ½ Internet

Other (please specify)

24. How would you describe your perception of the university mission as it is conveyed in the distance delivered course as compared to the FTF course?

I perceive no difference

I perceive minimal differences

I perceive some or a number of differences

I perceive many differences

Other (please specify)

Thank you for your time and participation in this survey.

Summary of Equivalency Categories

Category	Survey numbers
Classroom activities (24)	1.1, 1.2, 1.3 1.4, 2.1, 2.2, 2.3, 2.4, 4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 4.7, 4.8, 4.9, 5.4, 5.5, 5.6, 5.9, 5.10, 5.12, 5.13
Practical activities (16)	3.1, 5.1, 5.2, 5.3, 5.14, 6.4, 6.5, 6.8, 7.1, 8.1, 8.2, 8.3, 8.4, 8.5, 8.6, 8.7
Social interactions (18)	3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 5.7, 5.8, 5.11, 6.1, 6.2, 6.3, 6.6, 6.7, 6.9, 7.2, 7.3, 7.4

Note. Adapted with permission of the subject university.

Appendix C
Benchmark Data

Benchmark Data

(Traditional Students, $N = 2419$)

<u>Mission Survey Attribute</u>	<u>Means of Means</u>	<u>SD Mean</u>
1.1 school history/policy	3.88	1.22
1.2 denominational school	4.38	1.28
1.3 how mission statement affects me	4.62	1.12
1.4 how we define holistic education	4.34	1.22
2.1 learn purposes of liberal arts education	4.16	1.12
2.2 learn liberal arts tradition	4.06	1.08
2.3 understand academic program	4.76	1.02
2.4 learn about faculty credentials	4.5	1.04
3.1 learn to make wise choices	5.36	0.88
3.2 understand basis for campus rules	4.88	1.02
3.3 value Christian community	5.26	0.88
3.4 foster positive relationships	5.32	0.90
3.5 engage in healthy entertainment	5.22	1.00
3.6 participate in leadership activities	5.24	0.98
4.1 read University Catalog	4.2	1.26
4.2 understand academic standing	4.54	1.06
4.3 understand satisfactory progress	4.82	0.98
4.4 avoid academic probation	5.48	0.84
4.5 know financial aid requirements	5.2	0.98
4.6 select an academic advisor	5.04	0.94
4.7 match career goals to courses	5.32	1.07
4.8 be able to compute a Grade-Point Average	4.8	1.08
4.9 value a high Grade-Point Average	5.22	0.86
5.1 manage time appropriately	5.52	0.74
5.2 avoid procrastination	5.4	0.88
5.3 set goals	5.42	0.82
5.4 go to class	5.5	0.76
5.5 think critically	5.38	0.80
5.6 create a personal study system	5.28	0.86
5.7 listen attentively	5.34	0.86
5.8 collaborate with others.	5.06	0.98
5.9 gain test taking confidence	5.3	0.90
5.10 track personal academic progress	5.24	0.90
5.11 develop internal locus of control	5.16	0.96
5.12 practice ethical scholarship	5.2	0.90
5.13 understand academic integrity	5.32	0.84
5.14 integrate faith and learning	5.38	0.98
6.1 attend chapel regularly	4.78	1.26
6.2 join a small group Bible study	4.64	1.24
6.3 attend campus praise and worship	4.78	1.24
6.4 commit to spiritual development	5.42	0.96
6.5 know Christ as personal Savior	5.74	0.78

6.6 share the good news of Christ	5.54	0.90
7.1 be an avid worshipper of God	5.56	0.86
7.2 be connected to other believers	5.6	0.84
7.3 use God-given spiritual gifts	5.56	0.84
7.4 be a credible Christian witness	5.6	0.88
8.1 access the campus intranet	5.22	0.92
8.2 use computer for word processing	5.52	0.74
8.3 find periodicals in the library	4.7	1.08
8.4 use the library information system	4.82	1.01
8.5 access the Internet	5.52	0.76
8.6 send and receive e-mail	5.34	0.86

Note. Data used with permission of subject university.

Appendix D
Online Courses

Online Courses

Associate of Arts, Business

Introduction to the Bible
 Leadership in Business
 Legal & Social Environment of Business
 Intro to Finance
 Intro to Business Economics
 Special Topics in Expository Prose & Research
 World Literature
 Introduction to Business & Technical Writing
 Physical Geography
 Western Civilization
 Industrial/Organizational

Bachelor of Business Administration

Management Theory and Practice
 Organizational Behavior
 Business Law for Managers
 Corporate Finance
 Human Resource Management
 Leadership, Ethics, Marketing
Bachelor of Science, Nursing
 Community Health Nursing
 Transcultural Nursing
 Nursing Research
 Faith & Contemporary Issues
 Global Health Care
 Community Health Nursing
 Leadership/Management in Nursing

Master of Science, Nursing (MSN)

Theoretical Foundations of Nursing
 Evidenced Based Research
 Moral/Ethical Decision Making
 Health Promotion & Disease Prevention
 Implications of Health Care
 Leadership Role Development
 Ethical Leadership Seminar
 MSN Specialty Track Courses

Appendix E

Student Perceptions of Mission in Courses
Using Face-to-Face, Distance Education, and Hybrid Modes

Mission as Perceived by Students in All Delivery Formats

		Mission Perception				
Delivery	Gender	None	Minimal	Some	Many	Total
Campus	Male	42	33	20	4	99
	Female	112	88	45	26	271
Face to Face	Total	154	121	65	30	370
	%	41.62%	32.7%	17.57%	8.1%	100%
Off Campus	Male	4	2	0	1	7
	Female	13	10	5	1	29
Face to Face	Total	17	12	5	2	36
	%	47.22%	33.33%	1.39%	5.56%	100%
Distance Education	Male	7	8	1	0	16
	Female	29	29	14	8	80
	Total	36	37	15	8	96
	%	37.5%	38.54%	15.63%	8.33%	100%
Hybrid	Male	2	4	2	5	13
	Female	19	14	8	2	43
	Total	21	18	10	7	56
	%	37.5%	32.14%	17.86%	12.5%	100%
On & Off Campus	Male	1	1	0	0	2
	Female	1	1	1	1	4
Face to Face	Total	2	2	1	1	6
	%	33.33%	33.33%	16.7%	16.7%	100%

Appendix F

t-Test Results for Students in Courses Using Face-to-Face Instruction

One-Sample *t*-Test Statistics for FTF Students

Mission Attribute	<i>N</i>	<i>M</i>	<i>SD</i>	<i>SEM</i>	<i>t</i> -Test Value	<i>t</i> -Test Result	df	Sig. (2-tailed)	<i>M</i> Difference	95% CI of the Difference	
										Lower	Upper
Policy	457	4.0744	1.07347	.05022	3.88	3.871	456	.000	.19440	.0957	.2931
Denomination*	462	4.4935	1.28015	.05956	4.38	1.906	461	.057	.11351	-.0035	.2305
Mission*	463	4.6782	1.07817	.05011	4.62	1.161	462	.246	.05819	-.0403	.1567
Holistic	456	4.6645	1.09310	.05119	4.34	6.339	455	.000	.32447	.2239	.4251
Purpose	462	4.3355	1.08330	.05040	4.16	3.482	461	.001	.17550	.0765	.2745
Tradition	460	3.7913	1.16219	.05419	4.06	-4.959	459	.000	-.26870	-.3752	-.1622
Academics	463	4.9482	.88366	.04107	4.76	4.582	462	.000	.18816	.1075	.2689
Faculty*	464	4.5884	.98188	.04558	4.50	1.938	463	.053	.08836	-.0012	.1779
Choices	463	5.5745	.70431	.03273	5.36	6.554	462	.000	.21451	.1502	.2788
Rules*	461	4.9046	1.14569	.05336	4.88	.460	460	.646	.02456	-.0803	.1294
Community	460	5.4174	.91687	.04275	5.26	3.682	459	.000	.15739	.0734	.2414
Relationships	464	5.6466	.61309	.02846	5.32	11.473	463	.000	.32655	.2706	.3825
Wholesome	461	5.0152	1.14103	.05314	5.22	-3.854	460	.000	-.20482	-.3092	-.1004
Abstain	456	4.8794	1.41605	.06631	5.22	-5.136	455	.000	-.34061	-.4709	-.2103
Leadership	461	4.9826	1.00851	.04697	5.24	-5.479	460	.000	-.25735	-.3497	-.1650
Catalog	462	3.8550	1.21566	.05656	4.2	-6.100	461	.000	-.34502	-.4562	-.2339
Standing	463	4.7473	.95055	.04418	4.54	4.693	462	.000	.20730	.1205	.2941
Progress*	464	4.8534	.90837	.04217	4.82	.793	463	.428	.03345	-.0494	.1163
Probation**	462	5.5108	.81665	.03799	5.43	2.127	461	.034	.08082	.0062	.1555

Fin Aid**	462	5.3139	.87814	.04085	5.2	2.787	461	.006	.11385	.0336	.1941
Advisor*	462	4.9502	1.00741	.04687	5.04	-1.916	461	.056	-.08978	-.1819	.0023
Career*	463	5.3305	.83282	.03870	5.32	.270	462	.787	.01045	-.0656	.0865
GPA	464	4.5474	1.21985	.05663	4.8	-4.460	463	.000	-.25259	-.3639	-.1413
High GPA	464	5.0647	.98593	.04577	5.22	-3.394	463	.001	-.15534	-.2453	-.0654
Time*	464	5.5474	.64890	.03012	5.52	.910	463	.363	.02741	-.0318	.0866
Avoid	464	5.0474	.98032	.04551	5.4	-7.747	463	.000	-.35259	-.4420	-.2632
Goals**	464	5.3017	.78561	.03647	5.42	-3.243	463	.001	-.11828	-.1899	-.0466
Attend	464	5.2759	.85528	.03971	5.5	-5.645	463	.000	-.22414	-.3022	-.1461
Think**	464	5.4591	.65266	.03030	5.38	2.609	463	.009	.07905	.0195	.1386
Study*	464	5.2996	.79055	.03670	5.28	.533	463	.594	.01957	-.0526	.0917
Listen*	464	5.3103	.73085	.03393	5.34	-.874	463	.383	-.02966	-.0963	.0370
Collaborate*	464	4.9849	.90939	.04222	5.06	-1.779	463	.076	-.07509	-.1580	.0079
Test	464	5.1509	.94952	.04408	5.3	-3.383	463	.001	-.14914	-.2358	-.0625
Track*	464	5.2737	.80259	.03726	5.24	.905	463	.366	.03371	-.0395	.1069
Control**	448	5.2679	.75951	.03588	5.16	3.006	447	.003	.10786	.0373	.1784
Ethical	462	5.4632	.74937	.03486	5.20	7.550	461	.000	.26320	.1947	.3317
Integrity	464	5.4547	.71553	.03322	5.32	4.056	463	.000	.13474	.0695	.2000
Integrate*	462	5.3247	1.03862	.04832	5.38	-1.145	461	.253	-.05532	-.1503	.0396
Chapel	454	4.0749	1.51771	.07123	4.78	-9.899	453	.000	-.70511	-.8451	-.5651
Bible	454	4.3414	1.36826	.06422	4.64	-4.650	453	.000	-.29859	-.4248	-.1724
Worship	452	4.3097	1.44572	.06800	4.78	-6.916	451	.000	-.47027	-.6039	-.3366
Spiritual*	463	5.4298	1.03140	.04793	5.42	.205	462	.838	.00981	-.0844	.1040
Honor*	462	5.6688	.92487	.04303	5.74	-1.654	461	.099	-.07117	-.1557	.0134
Share**	460	5.4261	1.10504	.05152	5.54	-2.211	459	.028	-.11391	-.2152	-.0127

Outreach*	453	4.8786	1.27286	.05980	4.98	-1.696	452	.091	-.10141	-.2189	.0161
Daily*	460	5.3522	1.09360	.05099	5.42	-1.330	459	.184	-.06783	-.1680	.0324
Church	461	5.2213	1.13963	.05308	54.2	-3.744	460	.000	-.19874	-.3030	-.0944
God*	462	5.5065	.91680	.04265	5.56	-1.254	461	.210	-.05351	-.1373	.0303
Connected*	463	5.5983	.80485	.03740	5.6	-.046	462	.963	-.00173	-.0752	.0718
Needs*	463	5.6285	.78142	.03632	5.56	1.887	462	.060	.06851	-.0029	.1399
Witness*	462	5.5693	.94454	.04394	5.6	-.699	461	.485	-.03074	-.1171	.0556
IntraNet*	462	5.2835	.88351	.04110	5.22	1.546	461	.123	.06355	-.0172	.1443
Word**	464	5.6142	.62342	.02894	5.52	3.256	463	.001	.09422	.0374	.1511
Library	460	4.3935	1.24178	.05790	4.7	-5.294	459	.000	-.30652	-.4203	-.1927
LIS**	460	4.7000	1.12662	.05253	4.82	-2.284	459	.023	-.12000	-.2232	-.0168
Internet	464	5.7220	.57511	.02670	5.52	7.565	463	.000	.20198	.1495	.2544
Send	464	5.6681	.61107	.02837	5.34	11.566	463	.000	.32810	.2724	.3838
Receive	464	5.6875	.59459	.02760	5.34	12.589	463	.000	.34750	.2933	.4017

Note. CI = confidence interval; **significant at .99 confidence interval; fin aid = financial aid; GPA = grade-point average.

Appendix G

t-Test Results of Students in Courses Using
Distance Education Instruction

Mission Attribute	N	M	SD	SEM	t-Test	t-Test	df	Sig. (2-tailed)	M Difference	95% CI of the Difference	
					Value	Result				Lower	Upper
Policy	99	3.2121	1.18039	.11863	3.88	-5.630	98	.000	-.66788	-.9033	-.4325
Denomination	104	3.6731	1.31786	.12923	4.38	-5.470	103	.000	-.70692	-.9632	-.4506
Mission	103	3.8058	1.18866	.11712	4.62	-6.952	102	.000	-.81417	-1.0465	-.5819
Holistic	104	3.8750	1.267	0.124	4.34	-3.742	103	.000	-.46500	-.7114	-.2186
Purpose*	102	3.9020	1.33134	.13182	4.16	-1.957	101	.053	-.25804	-.5195	.0035
Tradition	102	3.4706	1.27974	.12671	4.06	-4.652	101	.000	-.58941	-.8408	-.3380
Academics*	107	4.6168	.98713	.09543	4.76	-1.500	106	.136	-.14318	-.3324	.0460
Faculty**	106	4.2547	1.14693	.11140	4.50	-2.202	105	.030	-.24528	-.4662	-.0244
Choices*	105	5.2000	1.05064	.10253	5.36	-1.560	104	.122	-.16000	-.3633	.0433
Rules	94	3.8191	1.39864	.14426	4.88	-7.354	93	.000	-1.06085	-1.3473	-.7744
Community	103	4.6505	1.36273	.13427	5.26	-4.539	102	.000	-.60951	-.8758	-.3432
Relationships**	103	5.0194	1.17974	.11624	5.32	-2.586	102	.011	-.30058	-.5311	-.0700
Wholesome	102	4.5000	1.42641	.14124	5.22	-5.098	101	.000	-.72000	-1.0002	-.4398
Abstain	98	4.1837	1.77814	.17962	5.22	-5.770	97	.000	-1.03633	-1.3928	-.6798
Leadership	101	4.4257	1.23569	.12296	5.24	-6.622	100	.000	-.81426	-1.0582	-.5703
Catalog	99	3.3030	1.43181	.14390	4.2	-6.100	461	.000	-.34502	-.4562	-.2339
Standing	105	4.4667	1.13567	.11083	4.54	-.662	104	.510	-.07333	-.2931	.1464
Progress	105	4.7238	1.11368	.10868	4.82	-.885	104	.378	-.09619	-.3117	.1193
Probation*	105	5.3333	1.19829	.11694	5.43	-1.254	104	.213	-.14667	-.3786	.0852
FinAid*	104	5.0192	1.30704	.12817	5.2	-1.410	103	.161	-.18077	-.4350	.0734
Advisor*	95	3.9263	1.47491	.15132	5.04	-7.360	94	.000	-1.11368	-1.4141	-.8132
Career	100	4.6100	1.39186	.13919	5.32	-5.101	99	.000	-.71000	-.9862	-.4338

Grade Average	99	4.2626	1.41843	.14256	4.8	-3.770	98	.000	-.53737	-.8203	-.2545
High Average	102	4.7941	1.16329	.11518	5.22	-3.697	101	.000	-.42588	-.6544	-.1974
Time*	107	5.4112	.78852	.07623	5.52	-1.427	106	.156	-.10879	-.2599	.0423
Avoid**	107	5.1495	.90911	.08789	5.4	-2.850	106	.005	-.25047	-.4247	-.0762
Goals*	107	5.2991	.90298	.08729	5.42	-1.385	106	.169	-.12093	-.2940	.0521
Attend*	97	5.4124	.86304	.08763	5.5	-1.000	96	.320	-.08763	-.2616	.0863
Think*	107	5.4206	.81307	.07860	5.38	.516	106	.607	.04056	-.1153	.1964
Study*	107	5.2056	.88742	.08579	5.28	-.867	106	.388	-.07439	-.2445	.0957
Listen*	106	5.2642	1.00761	.09787	5.34	-.775	105	.440	-.07585	-.2699	.1182
Collaborate**	106	5.2736	.91060	.08845	5.06	2.415	105	.017	.21358	.0382	.3890
Test	104	4.9231	1.09449	.10732	5.3	-3.512	103	.001	-.37692	-.5898	-.1641
Track*	106	5.3585	.87493	.08498	5.24	1.394	105	.166	.11849	-.0500	.2870
Control*	104	5.0000	1.15750	.11350	5.16	-1.410	103	.162	-.16000	-.3851	.0651
Ethical*	105	5.1333	1.04759	.10223	5.20	-.652	104	.516	-.06667	-.2694	.1361
Integrity*	107	5.2430	.91981	.08892	5.32	-.866	106	.388	-.07701	-.2533	.0993
Integrate	104	4.7019	1.36446	.13380	5.38	-5.068	103	.000	-.67808	-.9434	-.4127
Chapel	82	3.9634	1.55908	.17217	4.78	-4.743	81	.000	-.81659	-1.1592	-.4740
Bible	88	3.4318	1.57418	.16781	4.64	-7.200	87	.000	-1.20818	-1.5417	-.8746
Worship	78	3.4231	1.60777	.18204	4.78	-7.454	77	.000	-1.35692	-1.7194	-.9944
Spiritual	102	4.7451	1.45348	.14392	5.42	-4.690	101	.000	-.67490	-.9604	-.3894
Honor	102	5.1373	1.42842	.14143	5.74	-4.262	101	.000	-.60275	-.8833	-.3222
Share	100	4.7400	1.52832	.15283	5.54	-5.235	99	.000	-.80000	-1.1033	-.4967
Outreach	85	3.6941	1.63316	.17714	4.98	-7.259	84	.000	-1.28588	-1.6381	-.9336
Daily	97	4.4124	1.55960	.15835	5.42	-6.363	96	.000	-1.00763	-1.3220	-.6933
Church	98	4.6531	1.54721	.15629	54.2	-4.907	97	.000	-.76694	-1.0771	-.4567
God	100	4.9700	1.50726	.15073	5.56	-3.914	99	.000	-.59000	-.8891	-.2909

Connected	102	5.0686	1.34429	.13310	5.6	-3.992	101	.000	-.53137	-.7954	-.2673
Needs	100	5.0600	1.37672	.13767	5.56	-3.632	99	.000	-.50000	-.7732	-.2268
Witness	98	4.8265	1.45039	.14651	5.6	-5.279	97	.000	-.77347	-1.0643	-.4827
IntraNet**	104	5.4231	.92108	.09032	5.22	2.248	103	.027	.20308	.0239	.3822
Word*	107	5.6355	.76962	.07440	5.52	1.553	106	.124	.11551	-.0320	.2630
Library*	94	4.4787	1.36570	.14086	4.7	-1.571	93	.120	-.22128	-.5010	.0584
LIS**	96	4.5312	1.35299	.13809	4.82	-2.091	95	.039	-.28875	-.5629	-.0146
Internet*	107	5.5888	.83500	.08072	5.52	.852	106	.396	.06879	-.0913	.2288
Send**	107	5.5701	.76617	.07407	5.34	3.106	106	.002	.23009	.0832	.3769
Receive**	107	5.5888	.76421	.07388	5.34	3.367	106	.001	.24879	.1023	.3953

Note. *Significant at .95 confidence interval; **significant at .99 confidence interval.

Appendix H

One-Sample t -Test Results of Students in Courses Using Hybrid Instruction

Mission Attribute	N	M	SD	SEM	t-Test	t-Test	df	Sig.	M	95% CI of the Difference	
					Value	Result		(2-tailed)	Difference	Lower	Upper
Policy*	60	3.8167	1.28210	.16552	3.88	-.383	59	.703	-.06333	-.3945	.2679
Denomination**	62	3.7742	1.48677	.18882	4.38	-3.208	61	.002	-.60581	-.9834	-.2282
Mission*	61	4.3115	1.24554	.15947	4.62	-1.935	60	.058	-.30852	-.6275	.0105
Holistic*	59	4.1356	1.41978	.18484	4.34	-1.106	58	.273	-.20441	-.5744	.1656
Purpose*	61	4.0492	1.16084	.14863	4.16	-.746	60	.459	-.11082	-.4081	.1865
Tradition*	61	3.7869	1.26642	.16215	4.06	-1.684	60	.097	-.27311	-.5975	.0512
Academics*	63	4.9365	.99795	.12573	4.76	1.404	62	.165	.17651	-.0748	.4278
Faculty	63	4.9683	.84182	.10606	4.50	4.415	62	.000	.46825	.2562	.6803
Choices*	61	5.2459	.62332	.07981	5.36	-1.430	60	.158	-.11410	-.2737	.0455
Rules	59	4.1525	1.38730	.18061	4.88	-4.028	58	.000	-.72746	-1.0890	-.3659
Community	61	4.6557	1.34021	.17160	5.26	-3.521	60	.001	-.60426	-.9475	-.2610
Relationships*	62	5.1935	.80650	.10243	5.32	-1.235	61	.222	-.12645	-.3313	.0784
Wholesome**	60	4.8000	1.13197	.14614	5.22	-2.874	59	.006	-.42000	-.7124	-.1276
Abstain**	58	4.7414	1.38362	.18168	5.22	-2.634	57	.011	-.47862	-.8424	-.1148
Leadership**	58	4.8103	1.05060	.13795	5.24	-3.115	57	.003	-.42966	-.7059	-.1534
Catalog*	60	4.1000	1.37409	.17739	4.2	-.564	59	.575	-.10000	-.4550	.2550
Standing	62	4.9839	.89611	.11381	4.54	3.900	61	.000	.44387	.2163	.6714
Progress**	62	5.1290	.91408	.11609	4.82	2.662	61	.010	.30903	.0769	.5412
Probation*	62	5.3871	.98105	.12459	5.43	-.746	61	.459	-.09290	-.3420	.1562
Financial Aid*	62	5.1774	.87823	.11154	5.2	-.202	61	.840	-.02258	-.2456	.2004
Advisor*	60	4.7333	1.27381	.16445	5.04	-1.865	59	.067	-.30667	-.6357	.0224
Career*	62	5.1129	1.05745	.13430	5.32	-1.542	61	.128	-.20710	-.4756	.0614

Grade Average*	62	4.5645	1.19591	.15188	4.8	-1.550	61	.126	-.23548	-.5392	.0682
High Grade*	63	5.0635	1.04531	.13170	5.22	-1.188	62	.239	-.15651	-.4198	.1068
Time*	63	5.4286	.68895	.08680	5.52	-1.053	62	.296	-.09143	-.2649	.0821
Avoid*	63	5.3016	.68709	.08657	5.4	-1.137	62	.260	-.09841	-.2715	.0746
Goals*	63	5.3175	.75830	.09554	5.42	-1.073	62	.287	-.10254	-.2935	.0884
Attend*	63	5.5714	.68895	.08680	5.5	.823	62	.414	.07143	-.1021	.2449
Think*	63	5.5397	.69155	.08713	5.38	1.833	62	.072	.15968	-.0145	.3338
Study**	63	5.4762	.59180	.07456	5.28	2.631	62	.011	.19619	.0471	.3452
Listen*	63	5.4603	.69155	.08713	5.34	1.381	62	.172	.12032	-.0538	.2945
Collaborate**	63	5.3333	.69561	.08764	5.06	3.119	62	.003	.27333	.0981	.4485
Test*	63	5.2222	.77135	.09718	5.3	-.800	62	.427	-.07778	-.2720	.1165
Track*	63	5.3651	.67922	.08557	5.24	1.462	62	.149	.12508	-.0460	.2961
Control*	57	5.1930	.76622	.10149	5.16	.325	56	.746	.03298	-.1703	.2363
Ethical**	62	5.4677	.61983	.07872	5.20	3.401	61	.001	.26774	.1103	.4251
Integrity**	61	5.4754	.59460	.07613	5.32	2.041	60	.046	.15541	.0031	.3077
Integrate*	60	4.8833	1.30308	.16823	5.38	-2.952	59	.005	-.49667	-.8333	-.1600
Chapel*	42	3.9762	1.68911	.26063	4.78	-3.084	41	.004	-.80381	-1.3302	-.2774
Bible*	46	3.9130	1.51769	.22377	4.64	-3.249	45	.002	-.72696	-1.1777	-.2763
Worship	40	3.5750	1.55064	.24518	4.78	-4.915	39	.000	-1.20500	-1.7009	-.7091
Spiritual	55	4.6909	1.42560	.19223	5.42	-3.793	54	.000	-.72909	-1.1145	-.3437
Honor**	59	5.2542	1.40925	.18347	5.74	-2.648	58	.010	-.48576	-.8530	-.1185
Share	56	4.7679	1.58391	.21166	5.54	-3.648	55	.001	-.77214	-1.1963	-.3480
Outreach	51	4.1373	1.49692	.20961	4.98	-4.021	50	.000	-.84275	-1.2638	-.4217
Daily	55	4.8364	1.52466	.20558	5.42	-2.839	54	.006	-.58364	-.9958	-.1715
Church	56	4.7321	1.53138	.20464	54.2	-3.361	55	.001	-.68786	-1.0980	-.2778

God	58	5.1034	1.26615	.16625	5.56	-2.746	57	.008	-.45655	-.7895	-.1236
Connected	60	5.0500	1.37070	.17696	5.6	-3.108	59	.003	-.55000	-.9041	-.1959
Needs	60	5.0667	1.36378	.17606	5.56	-2.802	59	.007	-.49333	-.8456	-.1410
Witness	57	4.8772	1.47685	.19561	5.6	-3.695	56	.001	-.72281	-1.1147	-.3309
IntraNet	63	5.4762	.75897	.09562	5.22	2.679	62	.009	.25619	.0650	.4473
Word	63	5.6984	.49627	.06252	5.52	2.853	62	.006	.17841	.0534	.3034
Library	62	5.1774	1.00040	.12705	4.7	3.758	61	.000	.47742	.2234	.7315
LIS	60	5.1833	.98276	.12687	4.82	2.864	59	.006	.36333	.1095	.6172
Internet	63	5.6984	.55750	.07024	5.52	2.540	62	.014	.17841	.0380	.3188
Send	63	5.6190	.55150	.06948	5.34	4.016	62	.000	.27905	.1402	.4179
Receive	63	5.6190	.55150	.06948	5.34	4.016	62	.000	.27905	.1402	.4179

Note. CI = confidence interval; *significant at .95 confidence interval; **significant at .99 confidence interval; LIS was Library Information System.

Appendix I

Student Factor Analysis for Modes of Instruction
Using Principle Component Analysis

Communality, Factor Loadings			
100% Delivery Format	Traditional	DE	Hybrid
	14 extractions	10 extractions	7 extractions
Mission Behavior	<i>N</i> was 154	<i>N</i> was 36	<i>N</i> was 21
Policy	0.685*	0.895	0.980
Denomination	0.680	0.890*	0.947
Mission	0.755	0.848	0.953
Holistic	0.630*	0.912	0.977
Purpose	0.774	0.934*	0.933
Tradition	0.754	0.937	0.969*
Academics	0.617	0.796	0.914
Faculty	0.687*	0.858	0.958
Choices	0.636	0.944	0.939
Rules	0.707	0.904	0.933
Community	0.767	0.971	0.949
Relationships	0.608	0.962	0.902
Wholesome	0.753	0.965	0.970
Abstain	0.673*	0.913	0.896
Leadership	0.547	0.947	0.967
Catalog	0.565	0.893	0.814
Standing	0.818	0.906*	0.984*
Progress	0.837*	0.930	0.947
Probation	0.697	0.696*	0.970
Financial Aid	0.737	0.794	0.939
Advisor	0.686	0.814	0.924
Career	0.723	0.934	0.933
GPA	0.744*	0.814	0.966
High GPA	0.738	0.921	0.974*
Time	0.660	0.772	0.992*
Avoid	0.721	0.733	0.878
Goals	0.679	0.934*	0.991
Attend	0.668	0.919	0.941
Think	0.682	0.802	0.942
Study	0.654	0.857*	0.950
Listen	0.638	0.917	0.963
Collaborate	0.653	0.900*	0.807
Test	0.758	0.915	0.897

Track	0.701	0.938	0.948
Control	0.587	0.930	0.913*
Ethical	0.824	0.948	0.974
Integrity	0.786	0.936	0.938
Integrate	0.734*	0.962	0.951
Chapel	0.711	0.947*	0.949
Bible	0.696	0.962	0.965
Worship	0.738	0.922	0.965*
Spiritual	0.688	0.938*	0.988
Honor	0.820	0.967	0.939
Share	0.822	0.963	0.994
Outreach	0.741	0.931	0.947
Daily	0.786	0.937	0.992
Church	0.708	0.942	0.840
God	0.848	0.940	0.993
Connected	0.829	0.984	0.982
Needs	0.857	0.945	0.991
Witness	0.732	0.970	0.987
IntraNet	0.617	0.946	0.969
Word	0.675	0.873	0.918
Library	0.759*	0.940	0.960
Information System	0.757*	0.932*	0.929
Internet	0.825	0.904	0.998
Send	0.863*	0.955	0.971*
Receive	0.878	0.955	0.971*

Note. Extraction method: principal component analysis. Only cases for which perception was no difference between distance education and face-to-face instructional modes are used in the analysis phase. Factor loadings contributing to $\geq 72\%$ of variance effect.* Initial communality was 1.000

Appendix J

Factor Analysis of Traditional and
Nontraditional Student: Communalities

Factor Analysis of Traditional and Nontraditional Students

Communalities	Student Eigenvalues	
	Traditional (<i>n</i> = 206)	Nontraditional (<i>n</i> = 143)
Policy	0.669	0.684
Denomination	0.673*	0.790
Mission	0.786	0.811
Holistic	0.606*	0.814
Purpose	0.752*	0.845
Tradition	0.712	0.871*
Academics	0.630	0.808*
Faculty	0.731	0.696
Choices	0.633	0.782
Rules	0.692	0.851
Community	0.787*	0.896*
Relationships	0.670	0.876
Wholesome	0.745	0.856
Abstain	0.699*	0.710
Leadership	0.620*	0.719
Catalog	0.620	0.717*
Standing	0.861*	0.871
Progress	0.814*	0.884
Probation	0.697*	0.563
Financial Aid	0.698&	0.778*
Advisor	0.653	0.773
Career	0.744	0.834
Grade-Point Average	0.719	0.734*
High Grade-Point Average	0.760	0.805
Time	0.672	0.798
Avoid	0.756	0.704*
Goals	0.680	0.815
Attend	0.718	0.809
Think	0.659	0.790
Study	0.681	0.833

Listen	0.666	0.817
Collaborate	0.701	0.797
Test	0.730	0.812
Track	0.705*	0.855
Control	0.606	0.734
Ethical	0.841	0.845
Integrity	0.795	0.864
Integrate	0.771*	0.806
Chapel	0.712	0.833
Bible	0.697	0.834
Worship	0.742	0.809
Spiritual	0.746	0.782
Honor	0.880	0.842
Share	0.857	0.879
Outreach	0.750	0.818
Daily	0.799	0.823
Church	0.734	0.787
God	0.876	0.875
Connected	0.887	0.856
Needs	0.896	0.906
Witness	0.814	0.836
IntraNet	0.631	0.626
Word	0.666	0.781
Library	0.745*	0.852
LIS	0.719*	0.797
Internet	0.836	0.880*
Send	0.881*	0.858*
Receive	0.905	0.858*

Note. Extraction method: principal component analysis. Only cases for which perception was no difference between distance education and face-to-face instructional modes were used in the analysis phase. Initial communalities was 1.000. *Contributed to majority of effect.

Appendix K

Independent *t*-Test Results of Traditional and Nontraditional Faculty

Mission Behavior Means, Standard Deviations, and Independent *T*-Test Results
for Traditional and Nontraditional Faculty

	Level	<i>N</i>	Mean	<i>SD</i>	<i>SEM</i>
Policy	> was 2.00	66	4.7879	.98473	.12121
	< 2.00	51	5.0588	.81023	.11345
Denomination	> was 2.00	66	5.1515	.99603	.12260
	< 2.00	52	5.2885	.91473	.12685
Mission	> was 2.00	66	5.3333	.79097	.09736
	< 2.00	52	5.4231	.84821	.11763
Holistic	> was 2.00	66	5.2424	.80500	.09909
	< 2.00	52	5.2500	.76376	.10591
Purpose	> was 2.00	66	4.9394	.99040	.12191
	< 2.00	52	5.0962	1.03393	.14338
Tradition	> was 2.00	66	4.6212	1.03426	.12731
	< 2.00	52	4.6923	1.05790	.14670
Academics	> was 2.00	66	5.3636	.67108	.08260
	< 2.00	52	5.3269	.92294	.12799
Faculty	> was 2.00	66	5.1515	.76946	.09471
	< 2.00	52	4.8846	.94254	.13071

Choices	> was 2.00	65	5.8308	.37787	.04687
	< 2.00	52	5.7308	.52824	.07325
Rules	> was 2.00	65	5.1231	1.06811	.13248
	< 2.00	52	5.2692	.90997	.12619
Community	> was 2.00	66	5.5000	.91568	.11271
	< 2.00	51	5.6275	.74728	.10464
Relationships	> was 2.00	66	5.6818	.53087	.06535
	< 2.00	52	5.7115	.49849	.06913
Wholesome	> was 2.00	66	5.1970	.96428	.11869
	< 2.00	51	5.4314	.87761	.12289
Abstain	> was 2.00	65	5.1231	1.36368	.16914
	< 2.00	52	5.6538	.81372	.11284
Leadership	> was 2.00	66	5.4697	.66146	.08142
	< 2.00	50	5.1000	.97416	.13777
Catalog	> was 2.00	66	4.5909	.97629	.12017
	< 2.00	52	4.5577	1.07400	.14894
Standing	> was 2.00	65	5.2308	.72391	.08979
	< 2.00	51	5.1176	.71125	.09960

Progress	> was 2.00	65	5.3385	.83436	.10349
	< 2.00	51	5.1373	.74886	.10486
Probation	> was 2.00	58	5.6207	.58722	.07711
	< 2.00	44	5.5227	.62835	.09473
Financial Aid	> was 2.00	63	4.8413	1.39361	.17558
	< 2.00	49	4.7347	1.05624	.15089
Advisor	> was 2.00	52	4.9231	1.35540	.18796
	< 2.00	45	5.2889	.81526	.12153
Career	> was 2.00	58	5.2586	.98338	.12912
	< 2.00	47	5.4255	.71459	.10423
Grade-Point Average	> was 2.00	61	4.5246	1.32422	.16955
	< 2.00	50	4.7400	1.06541	.15067
High Grade- Point Average	> was 2.00	63	4.9841	1.11431	.14039
	< 2.00	51	5.1765	.86501	.12113
Time	> was 2.00	66	5.6818	.50105	.06167
	< 2.00	52	5.6538	.59027	.08186
Avoid	> was 2.00	66	5.4242	.70297	.08653
	< 2.00	52	5.4808	.57702	.08002

Goals	> was 2.00	66	5.6970	.55386	.06818
	< 2.00	52	5.4808	.64140	.08895
Attend	> was 2.00	64	5.7656	.49577	.06197
	< 2.00	49	5.7551	.48004	.06858
Think	> was 2.00	66	5.8485	.36130	.04447
	< 2.00	52	5.6731	.61743	.08562
Study	> was 2.00	62	5.5000	.67143	.08527
	< 2.00	49	5.4490	.86750	.12393
Listen	> was 2.00	64	5.7188	.48693	.06087
	< 2.00	52	5.6346	.56112	.07781
Collaborate	> was 2.00	66	5.5303	.68432	.08423
	< 2.00	51	5.2941	.80732	.11305
Test	> was 2.00	66	5.3788	.83694	.10302
	< 2.00	50	5.4000	.78246	.11066
Track	> was 2.00	62	5.4194	.73659	.09355
	< 2.00	49	5.3878	.75874	.10839
Control	> was 2.00	65	5.4462	.77118	.09565
	< 2.00	50	5.4000	.83299	.11780

Ethical	> was 2.00	65	5.8462	.40430	.05015
	< 2.00	52	5.8077	.48662	.06748
Integrity	> was 2.00	66	5.8485	.40163	.04944
	< 2.00	52	5.8077	.48662	.06748
Integrate	> was 2.00	66	5.5303	.80803	.09946
	< 2.00	52	5.6731	.58481	.08110
Chapel	> was 2.00	58	4.7069	1.18483	.15558
	< 2.00	51	5.0196	.92715	.12983
Bible	> was 2.00	63	4.2540	1.33160	.16777
	< 2.00	48	4.4583	1.21967	.17604
Worship	> was 2.00	62	4.1452	1.40078	.17790
	< 2.00	50	4.3600	1.13856	.16102
Spiritual	> was 2.00	66	5.4848	.89859	.11061
	< 2.00	52	5.6923	.72864	.10104
Honor	> was 2.00	66	5.7879	.56881	.07002
	< 2.00	52	5.9038	.56913	.07892
Share	> was 2.00	66	5.3788	.95700	.11780
	< 2.00	51	5.6863	.67794	.09493

Outreach	> was 2.00	65	4.6615	1.18950	.14754
	< 2.00	50	4.8600	1.03036	.14571
Daily	> was 2.00	65	5.3231	.88579	.10987
	< 2.00	52	5.4231	.87102	.12079
Church	> was 2.00	65	5.3846	1.02610	.12727
	< 2.00	52	5.5769	.77576	.10758
God	> was 2.00	66	5.5152	.74920	.09222
	< 2.00	52	5.6346	.71480	.09912
Connected	> was 2.00	65	5.5692	.82858	.10277
	< 2.00	52	5.5577	.77746	.10781
Needs	> was 2.00	66	5.5758	.70297	.08653
	< 2.00	52	5.6731	.67798	.09402
Witness	> was 2.00	66	5.4545	.88024	.10835
	< 2.00	52	5.7308	.66023	.09156
IntraNet	> was 2.00	65	5.4154	.72656	.09012
	< 2.00	52	5.4038	.93431	.12956
Word	> was 2.00	66	5.6667	.59052	.07269
	< 2.00	52	5.6923	.57866	.08025

Library	> was 2.00	65	5.0769	1.03543	.12843
	< 2.00	52	4.9808	1.11127	.15411
Information System	> was 2.00	64	5.1719	.90070	.11259
	< 2.00	52	5.0769	1.00676	.13961
Internet	> was 2.00	66	5.6818	.58597	.07213
	< 2.00	52	5.6731	.55026	.07631
Send	> was 2.00	66	5.6667	.56387	.06941
	< 2.00	52	5.7500	.47999	.06656
Receive	> was 2.00	66	5.6667	.56387	.06941
	< 2.00	52	5.7308	.48971	.06791

Note. Group 1 = full-time faculty; Group 2 = adjunct faculty.

		Levine's Test for		<i>t</i> -Test for Equality of Means						
		Equality of		<i>t</i>	<i>df</i>	Sig. (2-tailed)	<i>M</i> Difference	<i>SE</i> Difference	95% Confidence	
		Variances							Lower	Upper
		<i>F</i>	Sig.							
Policy	Equal variances assumed	1.477	.227	-1.592	115	.114	-.27094	.17021	-.60810	.06621
	Equal variances not assumed			-1.632	114.517	.105	-.27094	.16603	-.59982	.05793
Denomination	Equal variances assumed	.090	.765	-.768	116	.444	-.13695	.17822	-.48993	.21604
	Equal variances not assumed			-.776	113.249	.439	-.13695	.17642	-.48645	.21256
Mission	Equal variances assumed	.047	.829	-.593	116	.555	-.08974	.15142	-.38966	.21017
	Equal variances not assumed			-.588	105.842	.558	-.08974	.15269	-.39248	.21299
Holistic	Equal variances assumed	.213	.646	-.052	116	.959	-.00758	.14595	-.29666	.28150
	Equal variances not assumed			-.052	112.016	.958	-.00758	.14504	-.29495	.27980
Purpose	Equal variances assumed	.852	.358	-.837	116	.404	-.15676	.18724	-.52760	.21408
	Equal variances not assumed			-.833	107.366	.407	-.15676	.18820	-.52983	.21631
Tradition	Equal variances assumed	.037	.847	-.367	116	.714	-.07110	.19372	-.45478	.31259
	Equal variances not assumed			-.366	108.470	.715	-.07110	.19424	-.45610	.31391
Academics	Equal variances assumed	2.497	.117	.250	116	.803	.03671	.14681	-.25406	.32749
	Equal variances not assumed			.241	90.074	.810	.03671	.15233	-.26591	.33934
Faculty	Equal variances assumed	.749	.389	1.694	116	.093	.26690	.15759	-.04524	.57904
	Equal variances not assumed			1.653	97.523	.101	.26690	.16142	-.05344	.58724

Choices	Equal variances assumed	6.315	.013	1.192	115	.236	.10000	.08387	-.06613	.26613
	Equal variances not assumed			1.150	89.369	.253	.10000	.08696	-.07279	.27279
Rules	Equal variances assumed	.883	.349	-.785	115	.434	-.14615	.18625	-.51508	.22277
	Equal variances not assumed			-.799	114.519	.426	-.14615	.18296	-.50859	.21628
Community	Equal variances assumed	1.378	.243	-.807	115	.421	-.12745	.15784	-.44009	.18519
	Equal variances not assumed			-.829	114.631	.409	-.12745	.15380	-.43210	.17720
Relationships	Equal variances assumed	.410	.523	-.310	116	.757	-.02972	.09584	-.21955	.16011
	Equal variances not assumed			-.312	112.429	.755	-.02972	.09512	-.21819	.15875
Wholesome	Equal variances assumed	.007	.932	-1.355	115	.178	-.23440	.17294	-.57696	.10816
	Equal variances not assumed			-1.372	111.895	.173	-.23440	.17085	-.57293	.10412
Abstain	Equal variances assumed	12.082	.001	-2.475	115	.015	-.53077	.21445	-.95555	-.10599
	Equal variances not assumed			-2.610	107.039	.010	-.53077	.20333	-.93384	-.12769
Leadership	Equal variances assumed	1.986	.161	2.432	114	.017	.36970	.15201	.06856	.67083
	Equal variances not assumed			2.310	81.694	.023	.36970	.16003	.05133	.68806
Catalog	Equal variances assumed	.311	.578	.176	116	.861	.03322	.18921	-.34153	.40797
	Equal variances not assumed			.174	104.328	.863	.03322	.19137	-.34627	.41270
Standing	Equal variances assumed	.668	.415	.842	114	.402	.11312	.13438	-.15309	.37933
	Equal variances not assumed			.844	108.375	.401	.11312	.13409	-.15267	.37891
Progress	Equal variances assumed	.526	.470	1.348	114	.180	.20121	.14927	-.09450	.49692
	Equal variances not assumed			1.366	111.900	.175	.20121	.14733	-.09071	.49312

Probation	Equal variances assumed	.965	.328	.810	100	.420	.09796	.12100	-.14210	.33803
	Equal variances not assumed			.802	89.288	.425	.09796	.12214	-.14472	.34064
FinAid	Equal variances assumed	4.231	.042	.445	110	.657	.10658	.23954	-.36813	.58128
	Equal variances not assumed			.460	109.940	.646	.10658	.23151	-.35222	.56537
Advisor	Equal variances assumed	4.952	.028	-1.579	95	.118	-.36581	.23161	-.82562	.09399
	Equal variances not assumed			-1.634	85.280	.106	-.36581	.22383	-.81082	.07920
Career	Equal variances assumed	1.079	.301	-.973	103	.333	-.16691	.17146	-.50695	.17313
	Equal variances not assumed			-1.006	101.883	.317	-.16691	.16594	-.49607	.16224
Grade-Point Average	Equal variances assumed	2.527	.115	-.930	109	.355	-.21541	.23173	-.67470	.24388
	Equal variances not assumed			-.950	108.970	.344	-.21541	.22682	-.66497	.23415
High Grade- Point Average	Equal variances assumed	.008	.931	-1.010	112	.314	-.19234	.19037	-.56953	.18485
	Equal variances not assumed			-1.037	111.824	.302	-.19234	.18542	-.55974	.17505
Time	Equal variances assumed	.958	.330	.278	116	.781	.02797	.10052	-.17111	.22706
	Equal variances not assumed			.273	100.044	.785	.02797	.10249	-.17536	.23131
Avoid	Equal variances assumed	1.838	.178	-.469	116	.640	-.05653	.12064	-.29547	.18241
	Equal variances not assumed			-.480	115.787	.632	-.05653	.11786	-.28996	.17691
Goals	Equal variances assumed	5.566	.020	1.963	116	.052	.21620	.11013	-.00193	.43433
	Equal variances not assumed			1.929	101.138	.057	.21620	.11207	-.00611	.43851
Attend	Equal variances assumed	.012	.914	.113	111	.910	.01052	.09283	-.17342	.19447
	Equal variances not assumed			.114	105.036	.910	.01052	.09243	-.17275	.19379

Think	Equal variances assumed	16.600	.000	1.928	116	.056	.17541	.09098	-.00479	.35561
	Equal variances not assumed			1.818	77.787	.073	.17541	.09648	-.01668	.36750
Study	Equal variances assumed	.942	.334	.349	109	.727	.05102	.14604	-.23842	.34046
	Equal variances not assumed			.339	88.585	.735	.05102	.15043	-.24790	.34994
Listen	Equal variances assumed	2.709	.103	.864	114	.389	.08413	.09735	-.10871	.27698
	Equal variances not assumed			.852	101.685	.396	.08413	.09879	-.11182	.28009
Collaborate	Equal variances assumed	2.414	.123	1.711	115	.090	.23619	.13802	-.03721	.50958
	Equal variances not assumed			1.675	97.754	.097	.23619	.14098	-.04359	.51596
Test	Equal variances assumed	.318	.574	-.139	114	.890	-.02121	.15261	-.32353	.28111
	Equal variances not assumed			-.140	109.014	.889	-.02121	.15119	-.32086	.27844
Track	Equal variances assumed	.033	.856	.221	109	.825	.03160	.14268	-.25118	.31438
	Equal variances not assumed			.221	101.727	.826	.03160	.14318	-.25240	.31560
Control	Equal variances assumed	.164	.686	.307	113	.759	.04615	.15022	-.25145	.34376
	Equal variances not assumed			.304	101.223	.762	.04615	.15175	-.25486	.34717
Ethical	Equal variances assumed	.971	.326	.467	115	.641	.03846	.08237	-.12469	.20161
	Equal variances not assumed			.457	98.857	.648	.03846	.08408	-.12837	.20529
Integrity	Equal variances assumed	1.093	.298	.499	116	.619	.04079	.08178	-.12117	.20276
	Equal variances not assumed			.488	98.232	.627	.04079	.08365	-.12521	.20680
Integrate	Equal variances assumed	5.356	.022	-1.072	116	.286	-.14277	.13322	-.40664	.12109
	Equal variances not assumed			-1.113	115.240	.268	-.14277	.12833	-.39697	.11143

Chapel	Equal variances assumed	3.611	.060	-1.519	107	.132	-.31271	.20581	-.72071	.09529
	Equal variances not assumed			-1.543	105.632	.126	-.31271	.20263	-.71446	.08904
Bible	Equal variances assumed	.299	.586	-.830	109	.408	-.20437	.24610	-.69213	.28340
	Equal variances not assumed			-.840	105.297	.403	-.20437	.24318	-.68653	.27780
Worship	Equal variances assumed	2.098	.150	-.876	110	.383	-.21484	.24531	-.70098	.27130
	Equal variances not assumed			-.895	109.989	.373	-.21484	.23995	-.69036	.26068
Spiritual	Equal variances assumed	3.108	.081	-1.351	116	.179	-.20746	.15356	-.51161	.09669
	Equal variances not assumed			-1.385	115.891	.169	-.20746	.14981	-.50419	.08927
Honor	Equal variances assumed	3.798	.054	-1.099	116	.274	-.11597	.10550	-.32492	.09298
	Equal variances not assumed			-1.099	109.600	.274	-.11597	.10550	-.32506	.09313
Share	Equal variances assumed	7.943	.006	-1.947	115	.054	-.30749	.15792	-.62030	.00533
	Equal variances not assumed			-2.032	114.217	.044	-.30749	.15129	-.60718	-.00779
Outreach	Equal variances assumed	1.328	.252	-.939	113	.350	-.19846	.21129	-.61707	.22015
	Equal variances not assumed			-.957	111.360	.341	-.19846	.20737	-.60936	.21243
Daily	Equal variances assumed	.740	.392	-.611	115	.542	-.10000	.16359	-.42404	.22404
	Equal variances not assumed			-.612	110.193	.542	-.10000	.16328	-.42358	.22358
Church	Equal variances assumed	3.726	.056	-1.119	115	.265	-.19231	.17182	-.53265	.14803
	Equal variances not assumed			-1.154	114.668	.251	-.19231	.16665	-.52242	.13780
God	Equal variances assumed	1.362	.245	-.877	116	.382	-.11946	.13615	-.38913	.15020
	Equal variances not assumed			-.882	111.785	.379	-.11946	.13539	-.38773	.14880

Connected	Equal variances assumed	.000	.992	.077	115	.939	.01154	.15002	-.28561	.30869
	Equal variances not assumed			.077	112.061	.938	.01154	.14895	-.28359	.30666
Needs	Equal variances assumed	1.153	.285	-.758	116	.450	-.09732	.12833	-.35150	.15686
	Equal variances not assumed			-.762	111.322	.448	-.09732	.12778	-.35051	.15587
Witness	Equal variances assumed	9.248	.003	-1.883	116	.062	-.27622	.14669	-.56675	.01431
	Equal variances not assumed			-1.947	115.750	.054	-.27622	.14185	-.55719	.00474
IntraNet	Equal variances assumed	1.070	.303	.075	115	.940	.01154	.15352	-.29256	.31564
	Equal variances not assumed			.073	94.633	.942	.01154	.15782	-.30180	.32487
Word	Equal variances assumed	.139	.710	-.236	116	.814	-.02564	.10854	-.24061	.18933
	Equal variances not assumed			-.237	110.604	.813	-.02564	.10827	-.24020	.18892
Library	Equal variances assumed	.526	.470	.483	115	.630	.09615	.19902	-.29808	.49038
	Equal variances not assumed			.479	105.782	.633	.09615	.20061	-.30158	.49388
Information System	Equal variances assumed	.132	.717	.536	114	.593	.09495	.17729	-.25626	.44616
	Equal variances not assumed			.529	103.475	.598	.09495	.17935	-.26073	.45064
Internet	Equal variances assumed	.015	.903	.083	116	.934	.00874	.10579	-.20080	.21828
	Equal variances not assumed			.083	112.427	.934	.00874	.10500	-.19930	.21678
Send	Equal variances assumed	2.783	.098	-.850	116	.397	-.08333	.09802	-.27748	.11081
	Equal variances not assumed			-.867	115.272	.388	-.08333	.09617	-.27382	.10715
Receive	Equal variances assumed	1.778	.185	-.649	116	.518	-.06410	.09875	-.25968	.13148
	Equal variances not assumed			-.660	114.860	.510	-.06410	.09710	-.25645	.12825

Appendix L

Factor Analysis of Traditional and
Nontraditional Faculty: Communalities

Traditional and Nontraditional Faculty Factor Analysis, Communalities

Communalities	Faculty Eigenvalues	
	Traditional <i>N</i> = 32	Nontraditional <i>N</i> = 12
Policy	0.949	0.901
Denomination	0.879	1.000
Mission	0.902	1.000
Holistic	0.958	1.000
Purpose	0.790	1.000
Tradition	0.872*	1.000
Academics	0.927	1.000
Faculty	0.906	1.000
Choices	0.944*	0.998
Rules	0.962	1.000
Community	0.941	0.999
Relationships	0.942	1.000
Wholesome	0.984	1.000
Abstain	0.982	0.999
Leadership	0.873	1.000
Catalog	0.813	0.995*
Standing	0.896	0.991
Progress	0.983	0.997
Probation	0.884	0.995*
Financial Aid	0.941	0.999*
Advisor	0.894	0.998
Career	0.891	0.998
GPA	0.851	0.994
High GPA	0.955	0.812
Time	0.829	1.000
Avoid	0.937	1.000*
Goals	0.869	1.000*
Attend	0.977	0.998*
Think	0.903	1.000*

Study	0.858	0.995
Listen	0.972	0.999
Collaborate	0.847	1.000
Test	0.959	0.999
Track	0.952	1.000
Control	0.926	1.000
Ethical	0.938	0.999*
Integrity	0.883	0.999
Integrate	0.976	1.000
Chapel	0.841	0.678
Bible	0.907	0.999
Worship	0.961	0.995
Spiritual	0.958*	0.998
Honor	0.978	0.999
Share	0.975	1.000
Outreach	0.934	0.984
Daily	0.950*	0.999
Church	0.968	1.000
God	0.938	1.000
Connected	0.899	1.000
Needs	0.946	1.000
Witness	0.983	1.000*
IntraNet	0.907*	0.999
Word	0.970	1.000*
Library	0.927	0.990
LIS	0.961*	0.992
Internet	0.889	1.000
Send	0.903	0.998
Receive	0.903	0.998

Note. Twenty-five iterations, varimax rotation, correlation; *contributed to majority of effect.