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Administrator Perceptions of Internet-Based Distance Education in Adventist Colleges and Universities : a Mixed-Method Study

Pamela K. Cress
Andrews University

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Andrews University
School of Education

ADMINISTRATOR PERCEPTIONS OF INTERNET-BASED DISTANCE EDUCATION IN ADVENTIST COLLEGES AND UNIVERSITIES: A MIXED-METHOD STUDY

A Dissertation
Presented in Partial Fulfillment
of the Requirements for the Degree
Doctor of Philosophy

by
Pamela K. Cress
December 2004
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A dissertation presented in partial fulfillment of the requirements for the degree Doctor of Philosophy

by

Pamela K. Cress

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ABSTRACT

ADMINISTRATOR PERCEPTIONS OF INTERNET-BASED DISTANCE EDUCATION IN ADVENTIST COLLEGES AND UNIVERSITIES: A MIXED-METHOD STUDY

by

Pamela K. Cress

Chair: Shirley A. Freed
ABSTRACT OF GRADUATE STUDENT RESEARCH

Dissertation

Andrews University

School of Education

Title: ADMINISTRATOR PERCEPTIONS OF DISTANCE EDUCATION IN
ADVENTIST COLLEGES AND UNIVERSITIES: A MIXED-METHOD
STUDY

Name of researcher: Pamela K. Cress

Name and degree of faculty chair: Shirley A. Freed, Ph.D.

Date completed: December 2004

Problem

The quality of Internet-based distance education (IBDE) will increasingly become
the standard by which students choose a program as higher educational options multiply
due to the dramatic growth in distance education. A system-wide examination of
perceptions of IBDE in Adventist higher education is important to administrators for
future institutional strategic planning purposes, systemic adoption of policies and
practices that promote excellence, and identifying collaborative efforts.
Method

This was a sequential exploratory mixed-method study of the perceptions of administrators on IBDE. It was conducted collaboratively with Susan Smith who examined teacher perceptions. Data were collected for both studies from teachers and administrators at nine Adventist colleges and universities across the United States. Research participants were first surveyed using an electronic version of the Institute for Higher Education Policy (IHEP) benchmarks. The survey was followed by a qualitative phase that involved telephone interviews with one identified expert in IBDE on each of the nine campuses.

Results

The results of this study indicate little difference in teacher and administrator perceptions with regard to performance on the IHEP benchmarks. However, the most problematic areas of the benchmarks that have significant implications for administrators include: visioning and strategic planning; student and faculty support; and evaluation and assessment. Administrators did express that IBDE was important and future plans were to increase offerings. In the qualitative phase, the themes of prevailing attitudes, collaboration, and qualities of an expert emerged in addition to the seven benchmark categories. Findings that were statistically significant were gender perceptions and the combined effect of experience and position. It was found that mid-level administrators with online teaching experience more strongly identified with leadership roles than teachers or upper level administrators.
Conclusions

There are several weak system components in Adventist Internet-based distance education. These areas include strategic planning for technology infrastructure and teaching with technology, policy and management structures, and monitoring and evaluation. Future research recommendations involve exploration of institutional collaborative models, distance education policy and procedures, mid-level administrator impact on distance education, gender differences, and testing and revision of the IHEP benchmarks.
To my late father, Don R. Keele, Sr.
I wish you were here to see this.

To my husband, John,
daughters, Jana and Jaci,
and my Mom, Della Keele.
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<tr>
<td>ADEC</td>
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<td>AVLN</td>
<td>Adventist Virtual Learning Network</td>
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<td>CDB</td>
<td>Course Development Benchmarks</td>
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To my wonderful husband, John, I say thank you for the wonderful support and love given me through this process. I'm sorry for not being nearly as conscientious to you in your doctoral work as you have been in mine. To my Mom, Della Keele, I say thank you for your invaluable help in transcribing all the qualitative data. To my daughters, Jana and Jaci, thank you for being my joy and inspiration.

To my colleague and co-researcher, Susan Smith, I would never have started or finished all this without you. Your passion and persistence to complete this project are some of the many reasons this collaboration worked so well. Many thanks!

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For completion of this dissertation and my degree, I am also grateful to Walla Walla College for the financial resources and release time that helped me realize this accomplishment. Finally, I acknowledge God as the source of all true knowledge and thank Him for being my loving guide on this amazing journey.
CHAPTER ONE

INTRODUCTION

The purpose of this chapter is to provide information on the background of the problem, to review Adventist educational organizations, and to introduce the study. The chapter additionally includes: the purpose of the study, research questions, limitations, delimitations, definitions of terms, and the significance of the study.

Background to the Problem

Although higher education has remained virtually unchanged for centuries, it has been suggested that it is currently facing a crisis of modernization (Evans & Nation, 2000) due to the impact of the Internet and World Wide Web. Distance education, education that occurs when teacher and students are not located in the same place, has embraced and integrated changes in structure and pedagogy as educational technology have advanced. The question remains, however, whether traditional "brick and mortar" colleges and universities can experience future success without distance education. The next decade will be a time of transformation for colleges and universities as they respond to the challenges of a world changed by technology (Duderstadt, 1999).

Eaton (2001) suggests that whether or not distance education means the end of traditional higher education or simply a commanding new addition, it is currently making
a major impact on higher education. Distance education is challenging models of teaching and learning, changing the way faculty members function, and spawning new institutions of higher education as well as distance education programs on traditional campuses (Eaton, 2001).

In its second comprehensive report, the National Center for Educational Statistics (NCES) found considerable growth in the field of distance education (Lewis, Snow, Farris, & Levin, 1999). Key findings of the 1997-1998 NCES report (Lewis et al., 1999) include enrollment in an estimated 1.6 million distance education courses in over 54,000 different course offerings. NCES also found that since their first survey in 1994-1995 there has been an increase in the number of higher education institutions offering distance education from 33% to 44%. Course offerings and enrollment nearly doubled, as did degree and certificate programs. Of particular interest to this study, NCES reported the use of Internet-based and video technologies as the most utilized technologies in distance education. When the NCES (The Condition of Education 2001, 2001; Lewis et al., 1999) survey asked institutions about their projected plans for distance education over the next 3 years, 82% reported plans to use or increase the use of asynchronous Internet instruction as the primary method of delivery. Additionally, 60% reported plans to use or increase the use of synchronous Internet-based instruction. If institutional planning has proceeded as indicated by the NCES report, the past 5 years have likely been characterized by the rapid adoption of Internet-based instruction as the primary means of distance education delivery.

What is stunning about the impact of distance education on higher education is not necessarily current enrollment, but rather the unprecedented rapid growth that has
been experienced in a relatively short period. As higher education rushes to catch up with
the distance education movement, the response in many instances has been somewhat
suggest that a systems view of distance education will help academic institutions and
instructors recognize and deal with challenges, as well as helping them identify quality
distance education. A systems view recognizes the interdependence of individual parts
to the health of the whole system including the environmental context of the system
(Bertalanffly, 1968). This suggests that a change in one part of the system will affect the
whole system.

A systems model of distance education as described by Moore and Kearsley
(2005) includes these components: learning, teaching, program/course design, and
management. Additionally, the systems environmental context is influenced by
organizational history, culture, and philosophy. When viewed from a systems model,
there are numerous challenges to be addressed and mysteries to be uncovered in distance
education as a whole, and in Adventist higher education in particular.

Some of the major issues facing higher education’s involvement in distance
education are: the changing roles of instructors, the need for a shift in administrative
focus, a new view of the student body, having the ability to distinguish and develop high-
quality distance education courses and systems, and providing adequate user support and
financial planning (Eaton, 2001).

As the Internet replaces the classroom, the role of the teacher is fundamentally
altered, presenting faculty with the need for a pedagogical paradigm shift. Not only is the
role of the instructor changed in terms of the teaching and learning process, but also in
many distance education models teachers are sub-specializing in such areas as content expert, design, production, and student interaction (Eaton, 2001; Moore & Kearsley, 2005).

Electronic learning environments are changing the way colleges and universities educate students, and higher education administrators struggle to strategically plan the most appropriate strategy for distance education (Oblinger, Barone, & Hawkins, 2001). Some authors suggest that in order for technology to really work for all students and faculty, there must be an institutional commitment to a comprehensive, clearly articulated technology plan that achieves student learning, productivity, and cost effectiveness (Hitt & Hartman, 2002).

Traditional policies and practices of higher education are often inappropriate or inadequate, and administrators are finding it necessary to re-shape old policies and/or make new policies for an effective distance education program. For instance, the intellectual property law raises the new issues of patent, copyright, and software infringement, as well as old issues of institutional trademark. Federal policies on student financial aid and issues of access for persons of disability may also impact expansion of distant learning. In addition, institutions may need to modify faculty policies on workload, class size, and remuneration as well as meet new state and regional accreditation policies for distance education courses and degree programs (Levine & Sun, 2002; Oblinger et al., 2001).

Other internal barriers to distance education include faculty resistance, assessment of program effectiveness, and financial expense for technological infrastructure which
includes servers, hardware/software, learner support services, and faculty and course
development support (Hitt & Hartman, 2002).

In light of the challenges described above, some higher education institutions are
forming partnerships with other institutions to achieve the goal of quality distance
education (Eaton, 2001). Katz, Ferrara, and Napier (2003) describe the nature of this
partnership as follows:

Partnerships allow organizations to share risk, take advantage of one another’s
strengths and expertise, pool resources, and spark creativity. Given the
complexities of a large-scale distributed education program, few institutions will
make significant enrollment gains by going it alone. (p. 17)

These partnerships are as varied as the institutions and are usually considered as a
way to assure: (a) program quality and/or cost reduction, (b) access for additional
students in current academic programs and (c) growth and academic innovation by
providing new programs that serve new students (Katz et al., 2003).

**Distance Education in North American Adventist Higher Education**

Adventist education has recently produced several organizations concerned with
issues of distance education and the use of educational technology. The Technology and
Distance Education Committee K-12 (TDEC) is responsible for providing research
findings, policies, guidelines, resources, and evaluation for distance education and the use
of instructional technology for Kindergarten to 12th-grade (K-12) Adventist schools.
Adventist Education Forum is an online discussion board for Adventist teachers. The
Seventh-day Adventist Curriculum and Instruction Resource Center Linking Educators
(CIRCLE) is an online site providing comprehensive information for Adventist
educators. Adventist Virtual Learning Network (AVLN) is a grassroots volunteer
educational organization focused on the promotion of online collaboration for life-long learning and integration of faith and learning. The Adventist Education Net serves the North American Division (NAD) Adventist Church by giving guidelines and policies to more than 1,000 K-12 schools and 15 colleges and universities in North America.

The only Adventist educational organization that focuses exclusively on distance education in higher education in the NAD is the Adventist Distance Education Consortium (ADEC). This consortium's membership involves the collaboration of 13 out of the 15 Adventist colleges and universities located throughout North America. These institutions include: Andrews University, Atlantic Union College, Canadian University College, Columbia Union College, Griggs University, La Sierra University, Loma Linda University, Oakwood College, Pacific Union College, Southern Adventist University, Southwestern Adventist University, Union College, and Walla Walla College. Florida Hospital College of Health Sciences and Kettering College of Medical Arts are Adventist institutions of higher education that are not members of ADEC. The mission of ADEC is to encourage collaboration and cooperation in the development, promotion, and delivery of quality Christian distance education at the college and university level.

Out of the 15 institutions of Adventist higher education, only 9 were actively providing Internet-based courses and or degree programs when data were being collected in 2003-04. This dissertation focuses on the quality of Internet-based distance education in these nine institutions: Andrews University, Atlantic Union College, Florida Hospital College of Health Sciences, Kettering College of Medical Arts, La Sierra University, Loma Linda University, Pacific Union College, Southern Adventist University, and Walla Walla College.
Statement of the Problem

Internet-based distance education is fast becoming an integral part of course delivery in North American Adventist colleges and universities. Currently, there are no comprehensive studies of online education in Adventist colleges and universities to inform administration and faculty on policies and practices that reflect industry standards of quality. An examination of online education is important to administrators in order to maintain the delivery of quality education and to encourage the systematic adoption of institutional and instructional policies and practices that promote excellence in Internet-based distance education. The quality of online distance education will increasingly become the standard by which students choose a program as their educational options have exponentially increased with the dramatic growth in distance education course offerings. An examination of Internet-based distance education in Adventist colleges and universities may help to highlight models of best practice and draw attention to areas for continued growth. Since Internet-based instruction is not bound by geography, educational systems must grapple with issues of collaboration versus competition through research and strategic planning.

Purpose of the Study

In the study *Quality on the Line: Benchmarks for Success in Internet-based Distance Education* (Phipps & Merisotis, 2000), the Institute for Higher Education Policy (IHEP) developed a set of benchmarks that are essential to high-quality Internet-based distance education. These benchmarks address quality that is controlled by the institution (those beyond the scope of direct faculty control), as well as by the instructor.
(benchmarks that are within the direct control of the instructor). The purpose of this mixed-method collaborative study is to determine, from a systems perspective, what extent Adventist colleges and universities in North America meet the IHEP benchmarks for quality Internet-based distance education and to better understand issues and experiences of administrators with Internet-based education. My colleague, Susan Smith, has completed a similar study that specifically looks at teacher experiences.

Research Questions

The questions concerning the nine Adventist Colleges and universities in this study are as follows:

1. To what extent do these Adventist colleges and universities demonstrate quality Internet-based distance education as measured by the IHEP benchmarks?

2. What other issues are identified that are important to administrators regarding Internet-based education?

These questions represent a broad overview of the purpose of this study. Specific hypotheses developed for the quantitative portion of this study include:

Hypothesis 1: Adventist colleges and universities involved in Internet-based distance education meet the IHEP benchmarks for high-quality distance education.

Hypothesis 2: There is no difference between the levels of experience and administrator/faculty perceptions on the IHEP benchmarks.

Hypothesis 3: There is no difference between administrator and faculty perceptions on IHEP benchmarks.

Hypothesis 4: There is no difference between administrator and faculty perceptions regarding their roles in visioning, strategic planning, and policy-making.
**Hypothesis 5:** There is a correlation between faculty compensation for teaching online courses and their consideration to teach online for another institution.

**Hypothesis 6:** There is no difference between administrator and faculty perceptions regarding the importance of Internet-based distance education to the future success of their institutions.

**Method**

This was a sequential exploratory mixed-method study of the perceptions of administrators on Internet-based distance education (IBDE). This study was conducted collaboratively with Susan Smith who examined faculty perceptions on IBDE. Data collection for both studies was conducted simultaneously from teachers and administrators at nine North American Adventist colleges and universities. Research participants were first surveyed using an electronic version of the Institute for Higher Education Policy (IHEP) benchmarks. The survey was followed by a qualitative phase that involved telephone interviews with one identified expert in IBDE on each of the nine campuses.

**Limitations of the Study**

A limitation of this study relates to our ability to identify, survey, and interview all faculty members with Internet-based teaching experience. Threats to internal validity arise since I am a member of the teaching community that is being studied and subjects may not be inclined to provide information freely. Additionally, since names and institutions are attached to the participants’ survey information, subjects may provide...
information to improve the image of their institution or the position they hold in the institution.

**Delimitations of the Study**

The participants in this study were limited to those chosen from nine Adventist institutions of higher education actively teaching Internet-based courses at the time of data collection.

**Definition of Terms**

The following terms are defined as they are used within this study:

**Asynchronous**: Communication in which interaction between participants does not take place simultaneously (Willis, n.d.).

**Chat room**: An Internet-based synchronous communication tool which allows two or more users to communicate synchronously.

**Distance learning/distance education**: Instruction and learning that occurs when teacher and student are not located in the same place.

**Distance education systems model**: A model that views the system as a whole, promoting integration and the interrelationship of individual components in the system. This model recognizes that change in one part of the system will affect the entire system. In distance education, specific component processes include learning, teaching, communication, design, management, history, and institutional philosophy (Moore & Kearsley, 2005).

**e-Learning**: Learning that is facilitated online through network technologies. (Garrison & Anderson, 2003).
Electronic bulletin board/discussion board: A computer-mediated, text-based discussion where students and faculty participate in asynchronous communication.

Face-to-face course: Any course that occurs with the student and the instructor in the same place at the same time.

Hybrid course: Any course in which approximately half the course took place face to face and the remainder of the course was done online.

Institutionally-controlled benchmarks: Benchmarks for Internet-based distance education, developed by IHEP, that are beyond the scope of direct instructor control: institutional support, student support, faculty support, and evaluation and assessment (Sparrow, 2002).

Instructor Controlled Benchmarks: Benchmarks for Internet-based distance education, developed by IHEP, that are within the control of the instructor: course development, teaching and learning, and course structure (Sparrow, 2002).

Internet-based/online/Web-based course: Any course where the primary means of delivery of course materials are through the use of the Internet and/or World Wide Web (WWW).

Synchronous communication: Communication in which interaction between participants is simultaneous (Willis, n.d.).

Web-enhanced course: Any course where the primary means of delivery of course material is face to face with Internet used to support instruction and distribution of course materials.
Significance of the Study

The significance of this study to Adventist higher education is to provide an in-depth view of Internet-based education from a systems perspective. This systems perspective involves looking at institutional system components such as learning, teaching, communication, design, management, history, and institutional philosophy (Moore & Kearsley, 2005) and how these components work together to provide quality Internet-based education. Additionally, one should not take a systems look without analyzing the perceptions of individuals and their interrelationships within the institutions that make up the educational system. Providing clarity in how well Internet-based distance education being done on Adventist campuses will hopefully assist administrators in understanding strengths and weaknesses of the system in addition to increasing the dialogue about why Internet-based education is important to the collaborative mission of Adventist institutions of higher education.

Summary and Organization of the Study

Chapter 1 provides the background of the problem facing distance education in higher education, specific problems and information on distance education in North American Adventist colleges and universities, a statement of the problem, the purpose of the study, and research questions, method, limitations, delimitations, and definitions of terms. This study was conducted in collaboration with Susan Smith who focused on faculty perspectives of Internet-based distance education.

The literature review begins in chapter 2 with a historical overview of distance education. Subsequent topics reviewed include the theoretical underpinning of the organization of distance education, current trends and debates, strategic planning,
financial challenges, policy issues, and administrator attitudes and perceptions. Finally, the development and research of the IHEP benchmarks are reviewed as an evaluation and assessment tool to measure quality Internet-based education. The benchmarks were used in this study to measure the quality of online education in nine Adventist institutions of higher education. The literature review in the Smith study shares the same historical overview but then becomes more focused to faculty issues.

Chapter 3 describes the methodology used in this study as well as the Smith study as data collection was conducted simultaneously for both. A detailed description of research design and rationale is provided, as well as information on the research participants, the instrumentation, and procedures used for the quantitative and qualitative phases of the study.

Chapter 4 describes data analysis and summarizes the results. Chapter 4 is identical in this study and the Smith study. The decision to report the data separately on faculty and administrative results was abandoned because the presentation of all the data gives the reader of each study greater perspective on the interconnection between faculty and institutional issues. Chapter 5 summarizes the study findings with a discussion and recommendations from an administrative perspective. The Smith study summarizes and discusses findings from the faculty perspective.
CHAPTER TWO

LITERATURE REVIEW

Introduction

This chapter covers the following topics regarding distance education from an institutional/organizational perspective: history, theoretical underpinnings of distance education, systems approach that supports distance education, current trends and debates, strategic planning, financial challenges, policy issues, administrator attitudes and perceptions, and the Institution of Higher Education Policy (IHEP) benchmarks (Phipps & Merisotis, 2000). The literature review of my colleague, Susan Smith, analyzes and synthesizes the literature on teaching and learning in distance education.

Historical Overview

Distance learning is not new and, in fact, may be much older than we think. Klass (2000) in his article entitled "Plato as Distance Education Pioneer: Status and Quality Threats of Internet Education" asserts that distance education was, no doubt, pioneered by Socrates in 360 B.C. with the publication of the Dialogues. Klass (2000) postulates that this first significant use of the written word allowed the Dialogues to essentially become course materials available to students who lived at a distance from the instructor. On a more humorous note, it is pointed out that the Dialogues also discussed the first faculty resistance to the new technology of the written word. It is quite ironic that

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Socrates himself insisted there must be “rear-guard action to try to slow down or stop the inevitable” (Klass, 2000, p. 3).

Others believe that distance learning really took hold in A.D.1450 when Johannes Gutenberg invented the printing press (Reddy & Goodman, 2001). Mass production of books allowed millions of readers to benefit from the ideas of others. Again, critics were in place. Monks who spent years transcribing and copying texts were sure the printing press editions were poor quality and would not last long. In addition, those who favored storytelling were convinced that the printed book would be the demise of the oral tradition (Larson & Strehle, 2001).

Since the work of A.W. Bates (1995) in Technology, Open Learning and Distance Education, much of the literature began to view the historical evolution of distance education in terms of generations. The generations can be distinguished based upon several criteria including: the types of technology used, communication patterns (i.e., one-way, two-way, or many-way), the rate information is communicated, student characteristics and needs, and pedagogical philosophies (Bates, 1995; Lewis et al., 1999; Sherron & Boettcher, 1997).

The history of distance education in the United States began over a century ago with courses delivered by mail. Originally known as correspondence study, the earliest documented course offered in the United States was shorthand (Daniel, 1999; Moore & Kearsley, 2005). In 1896, the University of Wisconsin catalog stated that the “earnest student may do good work at a distance from the University” documenting that this 19th-century institution offered some correspondence study programs (Axford, 1963, p. 14). This same school is also forthright about administrators’ reservations of distance study
because they added, in that same bulletin, a sentence that let students know they did not think correspondence was comparable to resident study (Axford, 1963). Educators in American universities have long used the latest technologies to deliver education to students (Moore & Kearsley, 2005), and students have always studied and learned in places that geographically separated them from their instructors (Klass, 2000).

These early beginnings of distant education represent the first generation of distance learning. Communication through printed materials known as study guides, with students writing essays, taking tests, and sending other assignments through the mail, is still a popular form of distant education (Moore & Kearsley, 2005). The first generation spanned over a century from the 1850s to the 1960s and was characterized predominantly by the use of one technology, the printed page (Hanna, 2003; Lewis et al., 1999; Moore & Kearsley, 2005; Sherron & Boettcher, 1997). Communication patterns and the flow of information were generally slow and went in one direction from teacher to student (Lewis et al., 1999). The first generation of distance education can be seen as a teacher-centered model using highly structured, mass-produced course materials targeting students who were isolated and highly motivated.

The second generation occurred in the 1960s and continued until the mid-1980s (Sherron & Boettcher, 1997). The most significant progression in the second generation was the development and wide use of technologies (i.e., videocassette recorders, fax machines, television) that sped up communication patterns or allowed students to view course materials at any time (Lewis et al., 1999; Moore & Kearsley, 2005). Other than the use of multiple technologies and changes in the speed of communication, the second generation is philosophically unchanged from the first generation. This is particularly
true in the United States; however, internationally, the Open University movement was a major development in the second generation (Moore & Kearsley, 2005) that pushed distance education into its third generation.

Open Universities were designed for students studying in their homes or workplaces, in their own time. Open Universities advanced distance education through a systems approach (attending to all the components of a distance education system) while utilizing the different forms of technology available at the time. Correspondence study was still a part of this concept but, in addition, Open Universities relied heavily on the broadcast and recorded media such as radio, television, and audiotapes (Moore & Kearsley, 2005).

The concept of the university changed in the third generation because the traditional higher education institution began to look different. Due to the widespread use of personal computers with Internet access, the idea began to emerge of a university as a mental construct of teaching and learning that was not bound by location and large-scale institutions (Moore & Kearsley, 2005; Sherron & Boettcher, 1997). Not only could information be made available more quickly and in larger amounts, interactivity was greatly enhanced between course participants through the use of e-mail, chat rooms, and electronic bulletin boards (Lewis et al., 1999). Though highly structured, learning became more student-centered with greater opportunities for individualized instruction. Students had more contact with instructors and other students in the course, and their educational opportunities multiplied to include individual courses, degree programs, and life-long learning (Sherron & Boettcher, 1997).
Fourth-generation distance education is characterized by multiple technologies including broadcast television or videotape, delivery and interaction by telephone, satellite, cable, or Integrated Service Digital Network (ISDN) lines (Lewis et al., 1999). Delivery of course materials in this generation harnessed the latest technology to set up networks of learning that allowed students to decide their own course of study. Students could access this material any place at any time just because they wanted to know the information, not necessarily because they want a degree. Audio, video, or computer conferences could be set up with individual students in homes and offices with one or more learners, providing, for the first time in distance education, real-time interaction between the learners and teacher (Moore & Kearsley, 2005). Since the 1990s, this fourth generation of distance education has evolved even more as the most recent technologies are now based on a combination of computers and telecommunications that allows the learner to communicate synchronously or asynchronously in multiple medias from many locations with other learners and teachers (Moore & Kearsley, 2005).

We are now in the midst of the fifth generation of distance education (Moore & Kearsley, 2005). Multiple media continues to be used with high-bandwidth computer technologies, allowing for greater speed and duration of communication, increased interactivity, and more complexity of instructional delivery. The last two generations moved pedagogically from the dissemination of information to active learning, impacting skill development, attitudes, and knowledge acquisition (Sherron & Boettcher, 1997). Low-cost mass production of course materials on CDs and DVD’s, user-friendly technologies, and the availability of course management programs (e.g., Blackboard,
WebCT, Moodle) impact the ease of course development and delivery for teachers and provide greater support to students.

Just as previous generations of distance education produced specific forms of learning organizations, Internet technology in the fifth generation is also stimulating thinking about how to organize distance education within institutions (Moore & Kearsley, 2005). New organizational models are now needed to support the current generation of distance education single-mode (large-scale) open universities and correspondence schools as well as dual-mode (small-scale) institutions or traditional, face-to-face institutions wishing to move to a dual-mode status (Moore & Kearsley, 2005).

Theoretical Underpinnings of Distance Education Organizations

In spite of the fact that distance education in the United States traces back to the late 1800s, practice and theoretical discussions of distance education in scholarly journals did not begin to appear until the 1980s (Saba, 2003; Simonson, Schlosser, & Hanson, 2002). Some writers assert that the struggle to develop a comprehensive theoretical foundation is but another symptom of higher education's difficulty in understanding distance education in the Digital Age (Moore & Kearsley, 2005).

The term “distance education” in teaching and learning is characterized largely by the separation of teacher and learner. This idea was first presented by a Swedish educator, Borje Holmberg (Moore & Kearsley, 2005) in a conversation with a colleague. Holmberg (1989) himself claims that his definition was strongly influenced by the works of Rudolf Delling, a German historian and bibliographer, who believed in the multifaceted nature of learning and communicating from a distance (Keegan, 1996). Today, it is generally agreed that there are several elements essential for a comprehensive
definition of distance education. They include (a) separation of teacher and student, (b)
influence and assistance of an educational organization, (c) communication through
various technologies, and (d) intentional and planned learning (Keegan, 1996; Moore &
Kearsley, 2005).

A review of literature demonstrates that current theorists contributing to the field
of distance education have approached the discipline from a broad and holistic
perspective that includes both pedagogical and organizational theories. Saba (2003)
asserts that the foremost theorists in the field developed what he calls “conceptual
synergies” (p. 4) of teacher and learner. For example, several theorists speak to what is
known as the centrality of the learner (Holmberg, 1989; Wedemeyer, 1971). This
concept, where the learner is seen as the center of education, is characteristic of distance
education and is necessary for understanding how it is different, in part, from other types
of education.

Other theorists turned their energies to the function and structure of distance
education (Keegan, 1996). They felt that structural and organizational issues were most
important in impacting the processes of teaching and learning in distance education
(Saba, 2003). Holmberg (1989) discussed the role of distance education within the
organization, noting two types of distance-teaching organizations he called large-scale
and small-scale systems of distance education. Small-scale organizations tend to be
mainstream traditional education organizations that provide some programs and/or
courses to distant students. In a small-scale system, teachers usually develop their own
distance courses and teach them, replacing, when necessary, traditional teaching and
learning loads (Holmberg, 1989). In contrast, the large-scale organizations, most
typically represented by Open Universities, are systems outside the traditional education systems that mass produce distance education to large numbers of students (Holmberg, 1989).

Moore and Kearsley (2005) refer to three organizational systems of distance education delivery, which are described as single-mode, dual-mode, and individual teachers. Single mode institutions, such as Holmberg's (1989) large-scale institutions, are dedicated exclusively to providing distance education; the most notable being the Open Universities overseas and Phoenix University in America. Dual-mode institutions are similar to Holmberg's (1989) small-scale institutions in that they are traditional institutions that offer distance education in addition to existing on-campus classes and programs. Moreover, dual-mode institutions establish an online infrastructure with a unit of specialists whose focus and support is the distance education learner and who work directly with faculty who teach distance education classes (Laird, 2004; Moore & Kearsley, 2005). An excellent example of a dual-mode institution where the distance education unit is at the core of academic administrative process is Trinity Western University, a Christian Liberal Arts university located in British Columbia, Canada (Laird, 2004).

The third type of distance education organization that Moore and Kearsley (2005) describe is an individual teacher model. Bates (2000, p 60) calls this organizational model the "lone ranger" model. This model is most likely used in conventional institutions where individuals teach online distance education classes without a unit of specialists to support them. In other words, course design and course delivery are the individual teacher's responsibility (Bates, 2000; Moore & Kearsley, 2005).
Hanna (2003) makes two additional distinctions in distance education organizations by recognizing the for-profit universities that have generally been founded by entrepreneurial leaders in order to take advantage of profitable trends in education and collaboration or strategic partnerships that may be formed to increase the competitive advantage of two or more colleges/universities.

Otto Peters’s (2000, 2003) industrial production or working methods theory is an organizational model of distance education that focuses on production rather than teaching and learning. It is particularly descriptive of both the large-scale institutions (Holmberg, 1989) and single-mode institutions (Moore & Kearsley, 2005) that portray the Open University systems. This theory, which was not even available in English until the 1980s, emphasizes distance education guidelines that characterize industrial organizations. Peters (2000, 2003) believes that these guidelines are better suited for the mass production of education in the digital age. Systematic planning, mass production of materials, specialization, standardization, and quality control assures that distance education will be easily accessed, cost effective, and high quality (Moore & Kearsley, 2005; Peters, 2000, 2003). Keegan (1996), a contemporary of Peters, asserts that Peters’s justification for his theory is society’s moving away from interpersonal communication (considered necessary in traditional education) to a more impersonal, electronic communication created by industrial technology. Critics, such as Noble (1998), would argue that Peters’s theory, in practice, is nothing more than validation for the commercialization of higher education and is more reflective of a past era rather than descriptive of the progressive, digital age.
Michael Moore's and Greg Kearsley's (2005) systems approach may be helpful in understanding distance education organizations in more practical terms. General Systems Theory was first proposed by the biologist, Ludwig von Bertalanffly (1968), in the 1940s. Bertalanffly emphasized that real biological systems are open and interactive with their environments and that there is a distinct arrangement and relation between parts that make up the whole system. Any change in one system component will naturally affect the other systems (Bertalanffly, 1968). Bertalanffly's theory has been logically applied to many disciplines since that time, as systems thinking is primarily about seeing and acting systematically to solve practical problems.

According to Moore and Kearsley (2005), distance education should also be viewed through the system theory lens. As a system, distance education is made up of many components, including learning, teaching, communication, design, and management. Each of these components is first a system individually and then links to the larger system of the whole of distance education. When something happens in one part of the distance education system, it will obviously impact other parts of the system (Moore & Kearsley, 2005). The idea of a systems approach to the field of distance education is not exclusive to Moore and Kearsley. Borje Holmberg (1989), who first talked about distance education as a separation between the teacher and learner, also thought about the whole of distance education: "Holism stresses the whole [the system] and studies its parts not as separate entities but as components of the whole. Knowledge of the purpose that a system serves, for instance, makes for understanding of the functions of the parts" (p. 29).
Whereas Holmberg discusses systems approaches as they relate to the theoretical viewing of the discipline, Moore and Kearsley (2005) actively argue the need for a systems view of distance education for practical reasons. As technology is introduced into traditional classroom, educators are failing to use systems thinking. For example, a misconception in educational organizational systems is that once the technology is in place, teachers should just teach regardless of whether that includes cameras, computers, interactive TV, and Internet. Or, in other words, technology does not or should not change how we do education. The systems model, as described by Moore and Kearsley (2005), provides insight to organizations that will allow teachers and administrators to actively plan for new technology even as they determine how technology changes will actually affect teaching and learning.

System components addressed by Moore and Kearsley (2005, p.11) in distance education include: (a) learning, (b) teaching, (c) communication, (d) course and program design and (e) management. As discussed earlier, the co-dependence between each component and individual system is high and changes in one system component will have an immediate effect on all the others (Holmberg, 1989; Moore & Kearsley, 2005).

In summary, current distance education theories speak to both pedagogical concerns and organizational function and structure. The organizational theories reviewed include Holmberg (1989) large and small-scale institutions; Moore and Kearsley’s (2005) single-mode, dual-mode, and individual teacher models; Bates’ (2000) lone-ranger model; Peters’(2000, 2003) industrial or working method theory; and Moore & Kearsley’s (2005) system’s approach to delivery of distance education. In addition,
Hanna (2003) recognizes the organizational models of the for-profit distance education institution and the trend towards collaborative partnerships between institutions.

**Future Models of Design and Delivery**

Moore and Kearsley (2005) suggest two models of organization that already exist and may impact the systems approach in planning and delivery of distance education programs to an even greater degree in the future. The first is a “commissioning model” (p. 298) that sets up a virtual agency to design and deliver programs rather than setting up a fixed institution. These agencies are central contracting organizations that commission services of content experts and instructional designers and offer communication technologies and other resources needed for the learner/teacher support system. This model is not only flexible and open, putting together whatever might be needed for each particular institution, it is also considered to be cost effective to institutions (Moore & Kearsley, 2005).

The second model described by Moore and Kearsley (2005) is a newly emerging approach called a “demand-driven” system (p. 299). This system is based in Independent Study, a concept that says the learner (the consumer), rather than the university (the supplier), has the decision-making power regarding what is to be learned, when, how, and to what extent. In this new model, education will not be limited to a single institution or agency, rather it is seen as an open system where students can learn from wherever they are located and have universal access to teachers, advice, and guidance. Key roles in the trend to learner-controlled education will be advisory and learner support services and the need for powerful credit banking and transfer systems (Moore & Kearsley, 2005).
Continued development of these models will continue to impact higher education institutions as they seek to provide technology-enhanced instruction to better serve students.

**Current Trends and Debates**

The current public debate over the merits of distance education is often represented as extremes at either end of the scale. Proponents insist, often without reinforcing data, that online learning will resolve all problems that currently plague traditional education (Gumport & Chun, 2002). Conversely, opponents are quite certain that any course taught online could never live up to the standards of the live, face-to-face classroom (Phipps & Merisotis, 2000) and assert that technological transformations of institutions are nothing but a tactic for the control and commercialization of higher education (Noble, 1998).

Trends in education are focused on lifelong learners in different environments outside the traditional classroom (Gandel, Katz, & Metros, 2004). This type of learner demands innovative, flexible, and visionary leaders who will plan intentionally for technology use in institutions (Barone, 2001).

**Is Traditional Education a Thing of the Past?**

Internet-based education is growing quickly (Phipps & Merisotis, 2000) as a result of the rapid advances in on-line technology, the needs of the learner for anytime, anywhere learning, and the necessity for universities to control costs and increase student access to program offerings (Duderstadt, 1999; Finneran, 2000). In the year 2000, nearly 85% of public universities and colleges, 54% of private universities, and 36% of private
4-year colleges offered Internet-based learning (Moore & Kearsley, 2005). Analysts at International Data Corporation expect that 90% of colleges in the United States will offer e-learning by the end of 2004 (Harris, 2001). And according to the National Center for Education Statistics (NCES, 2002), 73% of all undergraduate students in 1999-2000 were considered as having non-traditional student characteristics. These students were either 25 years or older, financially independent, attending college part-time, working full-time, having dependents, or being single parents. Going to school in the traditional way for this type of student can often be difficult, and more inventive ways are called for to accommodate their learning needs.

Many agree that information technology is transforming institutions (Barone, 2001; Reddy & Goodman, 2001; Smith, 2004) in ways that we could not have imagined even 20 years ago. Yet others speculate that, in spite of computer centers, personal PC’s, Netscape, PowerPoint, and the World Wide Web, technology has failed to really alter standards of higher education (Ayers & Grisham, 2003; Barone, 2001; Feenberg, 1999) and that teaching and learning at residential universities and colleges remain largely unchanged and will not likely be negatively impacted.

Online colleges and universities still teach what is learned in the research labs and libraries of residential colleges and universities. Although demographic, technological, and economic changes are opening doors to many people who cannot attend residential schools—a fact we applaud—those residential schools aren’t going away. Indeed they are more important than ever. (Ayers & Grisham, 2003, p. 42).

Ayers and Grisham (2003) maintain that residential schools should continue to remain the centers of knowledge production. In fact, they see this as a good thing for students as colleges and universities become a refuge from the techno-intensive environments in which they live. They further suggest that they “no longer look for the
imminent death of the book or the demise of the physical college or university” (p. 44). But, along with others (Ayers & Grisham, 2003; Barone, 2001; Smith, 2004), they do believe that in order to avoid a slow death, colleges and universities may need to begin investing in training teachers and scholars to use the available technologies in order to respond to student demand for richer learning environments in academic communities.

Dunn (2001) believes that almost all traditional education will be transformed by information technology and predicts that 10% of existing public colleges and 25% of independent colleges/universities will most likely close within the next 25 years. Regardless, he still foresees a niche market for some traditional residential institutions, especially those that “provide a religious community or other programming that is considered viable and desirable” (p. 28). However, the key for these institutions will be the delivery of high-quality, value-added services that are above and beyond the coursework that is offered (Dunn, 2001). Barone (2003) believes that a niche market for some institutions is most likely a myth. She feels that all institutions, regardless of size or affiliation, are currently being affected by the role that technology is playing in teaching and learning and to think otherwise blinds administrators to the possibilities that already exist (Barone, 2003).

Finally, it is highly likely that even though traditional education will continue to thrive, higher education providers will become more numerous and more diverse, making competition for traditional and non-traditional students stiff. Levine (2000) currently sees three types of colleges or universities emerging: “brick universities”, or traditional residential institutions; “click universities”, or commercial virtual universities; and “brick and click universities” (p. 10), which are a combination of the first two. He predicts that
the “brick and click universities” will be the most numerous in the future as students, traditional and non-traditional alike, will demand the flexibility and ease of services online but also desire a building in which to see and talk with professors and other students (Levine, 2000).

Learners and Leaders of the Future

Technology is allowing for new patterns of access and delivery of education (Williams, Paprock, & Covington, 1999) and, as a result, the focus of higher education is shifting from teaching (seat time) to learning (the outcomes of the individual student) (Levine, 2000). Part of this shift is due to students who are increasingly interested in actively creating knowledge and directing their own educational agendas. They gravitate to teachers who will provide active learning in and outside the classroom and take into account individual learning styles. In the future, they will be progressively more able to choose from a multitude of knowledge providers anywhere and anytime (Barone, 2001; Levine, 2000). Administrators and leaders in higher education will need to acknowledge and provide oversight to the learning transitions that are already happening due to changes in technology (Barone, 2001; 2003).

The Learner of the Future

The era of lifelong learning—a concept that defines those who want or need to continuously learn throughout the life cycle—will be one that demands accessibility, diversity, and flexibility in helping individuals access education when and where they want it (Daniel, 2000; Gandel et al., 2004). Gandel et al. (2004) characterize education in this era as “only occasionally mediated by the ‘traditional’ artifacts of historical learning
Williams et al. (1999) highlight the growing trend of the “global classroom” or access to learning internationally. Alexander (2004) discusses the trend of mobile learning in higher education or students who are “going nomadic” and suggests that we are seeing the decline of the computer lab and an increase in blended/collaborative learning, classroom mobility, and new learning spaces such as the wireless information commons. He also refers to the idea of “learning swarms” where one person’s excitement over a learning experience starts an ad hoc collaboration of learning on a topic utilizing technology in discussion forums, digitally tagged materials, experts, and other learning objects (Alexander, 2004).

Downes (2004) underscores another new phenomenon known as blogging or weblogging—terms used to describe online journals and communications in personal websites or open-forum threaded chats online. Blogging, which is currently sweeping the Internet, are personal posts that are usually short, mostly controversial, and have become known as a form of personal publishing (Downes, 2004, p. 18). Educational blogging in online learning communities and class sites is already extremely popular and will continue to increase in use to facilitate learning through sharing of information, challenging ideas, or constructing new paradigms (Downes, 2004; Morrison & Oblinger, 2002). Dunn (2001) predicts that by 2010 at least 95% of instruction in the United States will be electronically enhanced in some way. Learning in these “blended environments” will provide students with greater flexibility and, in many cases, remove time as an obstacle in learning (Barone, 2001).
As different learning styles emerge, teachers will need to teach in different ways and institutions will need to provide new structures in which to learn. Barone (2003) suggests an understanding of the new paradigm of learning when she states that “the course is not the container; teaching ‘space’ is not a physical place; and ‘personal’ does not mean ‘in person’” (p. 42). Or as Bates (2000, p. 27) suggests, “distributed teaching” with technology is seen on a continuum; on one end it is used to enhance face-to-face teaching and, on the other, instructional technology serves students at a distance.

Regardless of where teachers may be on the technology continuum, teaching methods must be changed in order to accommodate the new learning styles, and faculty will need to be supported in building learning experiences that create active learning environments (Ayers & Grisham, 2003; Barone, 2001). Teacher roles are already changing from the sole source of knowledge to more of a guide or mentor (Johnson, Hanna, & Olcott, 2003). “Technology can change not only the way we ‘instruct’ but also the way we manage and support teaching and learning” (Smith, 2004, p. 50). The “New Academy” (Barone, 2003, p. 46) is an organization that is more fluid and more responsive to the needs of anytime, anywhere learners.

The Leader of the Future

Barone (2001, 2003) believes that a new leadership style is needed in higher education in this age of information, a style that acknowledges and provides vision and oversight to institutions experiencing change due to advances in technology. Leaders in this approach must accept responsibility for visioning and implementing a new, learner-centered practice that fits within the mission, values, and culture of an institution (Barone, 2001; 2003). Charles Hurt, then Dean of the College of Social and Behavioral...
Sciences at the University of Arizona, states in an interview with Johnson et al. (2003) that leaders of today will make a difference if they can act on ideas:

What I do believe is evidence of leadership, however, is the knowledge that good ideas are not the province of a sole individual or even a group of individuals; it’s what you do with those ideas that defines your leadership. Transforming ideas into practice means swaying the masses—in this case, faculty, administrators, and other deans across the university. Viewed from another perspective, leadership is having followers voluntarily support your agenda at the same time they actually think it’s their agenda. (p. 97)

Additionally, Johnson et al. (2003) advocate for current and future leaders to be motivators of faculty and staff in change efforts by planning change through an incorporation of old and new ideas. Johnson et al. (2003) state that “wise leaders will not view technology as a cure-all for every issue in higher education, but that when used strategically, technology can transform institutions and provide new opportunities for faculty, staff and students” (p. 16). Musslewhite (2003) speaks to the essence of the problem leaders will have in helping institutions embrace change by stating “it is not change that needs managing as much as the people involved with the change” (p. 56). It is his conviction that the two greatest challenges for leaders in today’s higher education environment are creating understanding and achieving acceptance of needed change within the institution before it is imposed on the institution externally (Musslewhite, 2003).

**Administrator Issues and Concerns**

Higher education administrators seeking advice on what direction its institution should take with regard to distance education and technology will find much inconsistent advice. Visionaries insist that the new technology will create organizational transformation and advancement, while other educational experts argue that technology
should never drive an organization (Gumport & Chun, 2002). Bates (2000, p. 8) outlines three reasons why there is currently pressure on higher education institutions to change: (a) the need to do more with less, (b) the changing learning needs of society, and (c) the impact of new technologies on teaching and learning. A crucial question for higher education administrators in the 21st century will be how to lead institutions in directions that sustain growth while avoiding commitment to anything that could ultimately prove harmful (Brown & Jackson, 2001).

**Strategic Planning**

Creating organizational change while utilizing new technologies that enhance organizational effectiveness is difficult, at best. However, recognition that the power of information in technology is altering the basic structure and function of universities and colleges may create new opportunities (Goodman, 2001). Goodman suggests that when framing organizational change within an institution, leaders must attend to what he calls “preconditions for change and the critical processes in achieving change” (p. 158). Preconditions for change are an assessment of university learning environments and selection of a strategic planning process that ultimately moves the university through the critical processes of change which include strategic planning and implementation of that planning (Goodman, 2001).

Strategic planning, long considered an important tool for leaders, may be the way for administrators to find solutions to the conundrums that surround technology and distance education. In deciding to design and implement an institutional technology plan that may include distance education, several researchers assert that administrators must inspire a vision that is appealing to faculty and actively linked to the long-term mission...
and shared goals of the institution (Barone, 2001; Daniel, 1999; Katz, 1999; Pisel, 2001). Barone (2001) also believes that, in addition to mission and goals, "policy and practice regarding the role of technology must be conceived, and perceived, to fit within the institution's culture, values, and style of operation" (p. 47).

Bates (2000, p. 56) maintains that model strategic planning for distance education includes a plan that covers both the technology infrastructure and teaching with technology. Moore and Kearsley (2005) would agree and assert that intentional planning for distance education involves more than assuring that appropriate technology exists on campuses. Appropriate strategic planning also involves looking at demand, staff capability of designing and teaching courses, current faculty workloads, compensation and ownership of course materials, cost effectiveness of courses and programs, and sustainability (p. 217). Daniel (1999, p. 142) also recommends that organizational processes of governance be used to develop and implement technology and distance education strategies. He cautions that the idea of a technology/distance education strategy will be offensive to some who believe that such a plan will put the academic culture at risk. However, a plan developed within an existing academic culture will ensure this type of criticism is kept to a minimum and will allow for a broader discussion regarding teaching, research, and scholarship within the institution (Daniel, 1999). For informed planning of all institutional constituents, Howell, Williams, and Lindsay (2003) provide decision makers with 32 distance education trends that may assist decision makers in understanding the challenges surrounding technology and distance education.

Once the decision has been made to offer distance education courses or programs, Smith (2002) says the real issue for leaders in planning is how distance education falls
within the strategic planning hierarchy. The difficulty is that institutions are not clear about the function and goals of distance education within that institution. "When distance education itself is the objective," Smith (2002) says, "it is distance education that fails and we learn nothing about broader goals and objectives" (p. 486). He suggests addressing planning in relation to five goals of distance education that emerged from his research as specific objectives identified by educational institutions: (a) access, (b) reach, (c) quality, (d) efficiency, and (e) customer service (Smith, 2002).

Pisel (2001) also recommends use of a specific planning paradigm to support strategic planning for distance education. Pisel's (2001) model, which was a result of focused study with 23 distance education and strategic planning experts, is designed specifically for distance education planning. The 10 steps of strategic planning include: planning initiation (to be done by administrators), planning guidance/schedule, analyses of institutional need, fit with mission, assumptions, strategy developments/course of actions, functional analyses, implementation, assessment, and periodic reviews (p. 185). Additionally, he cautions that the framework should be used as a review or guide rather than a fixed set of procedures and that institutional mission, culture, and values should drive the plan rather than ever-changing technology (Pisel, 2001).

One example of a comprehensive strategic plan that encompasses all systems of online learning is found at the University of Central Florida (UCF). Truman-Davis (2001) outlines the models and processes that UCF has used since 1997 to provide online learning for over 25,000 students who live at a distance from the campus. The distance education models of delivery that have been developed represent implemented activities that resulted from four strategic direction statements in UCF's plan. These distance
education models of delivery and support include: instructional, faculty development, course development, and learner support (Truman-Davis, 2001).

Financial Challenges

The costs associated with information and educational technology have grown considerably in the past decade and, most likely, will continue to soar in this century (Gandel et al., 2004; Jewett & Henderson, 2003). Since 1997, U.S. colleges and universities have spent more than $5 billion to modernize core administrative information systems and two-thirds of these same colleges and universities have implemented one or more course management systems (Gandel et al., 2004, p. 43). Administrators are increasingly concerned about how to provide cost-effective education while attending to the revolution of the digital age. Some researchers feel that many colleges and universities are not taking advantage of technology opportunities because too few administrators know how to plan, pay for, and maintain the infrastructure that makes technology work well (Bates, 2000; Phipps & Wellman, 2001). Rumble (2003) believes that much of the problem with understanding cost effectiveness of information technology has been the difficulty administrators have in identifying factors that drive information technology costs. As Katz (2004) suggests, instead of talking about these factors, leaders usually resort to the blame game when trying to sort out budget overages.

A study commissioned by the Alfred P. Sloan Foundation in 2001 explored the financial costs and profitability of distance education in six institutions. Results revealed that though universities are not losing a lot of money on distance education, they are not making much either. How well institutions do depends largely on how they choose to define their expenditures and revenues (Carr, 2001). Bates (2000, p. 20) also believes
that technology-enhanced education will not necessarily reduce absolute costs; however, it may improve the cost-effectiveness of higher education operations by reaching more diverse students, reducing or eliminating activities done by instructors that could be done with technology, and improving the overall quality of learning.

Methods to explain the growing costs of distance education have evolved as distance education has progressed through the generations (Rumble, 2003). Early empirical studies (Eicher, 1978; Jamison, Klees, & Wells, 1978) highlighted methods that calculated actual fixed and variable costs of the functions in the distance education system. Rumble (2003) suggests that these cost models tended to produce wide variations in the actual cost of technology and distance education because they failed to capture the actual factors driving the costs. For example, variable costs for students would not only be driven by the number of individual students in the distance education system but also by the number of student course enrollments or student groups within a course (Rumble, 2003, p. 706). Later studies began to establish cost-efficient methods that explored not only fixed and variable costs of each function of distance education but also those hidden factors and costs associated with utilization of different technology strategies and instructional costs (Rumble, 2003; Jewett & Henderson, 2003).

Rumble (2003) has identified six factors that affect institutional costs above other fixed and variable costs in providing distance education: (a) technology choice, (b) existing materials or buying-in materials for course development, (c) working practices or the way work is organized around technology practices, (d) curriculum, that is, the number and range of courses offered and the frequency that materials have to be updated,
(e) the number of learners, and (f) how the organization is structured, that is, individual, single, or dual mode (pp. 707-711).

Much of the discussion in financing technology has been a result of the need to plan for distance education or educational technology. Bates (2000, p. 58) maintains that institutions will need to address the gap in distance education if they are to continue justifying the large investments already made in technological infrastructures and support systems. Phipps and Wellman (2001) highlight the larger problem of maintaining these technological infrastructures. In a mixed-method study, where surveys were sent to financial officers in all 50 states and interviews were conducted with several national experts on technology financing, it was discovered that there is a profound need for financial planning in obtaining and maintaining entire technological infrastructures. Additionally, Phipps and Wellman (2001) found that (a) higher education administrators see technology as necessary to the success of the school, (b) larger, wealthier institutions find it easier to stay current with technology than do smaller schools, and (c) budgeting and planning for technology are complicated by methods and models of financing that do not work in funding technology, lack of a common language to communicate clearly about technology, and lack of familiarity with innovative funding sources. Finally, Phipps and Wellman (2001) assert from their findings that technology funding will continue to be difficult for public and nonprofit colleges and universities who operate either as a “brick and click” or “brick” institution.

Educause, a nonprofit association whose mission is to advance higher education by promoting the intelligent use of information technology, recently released its Current Issues Committee’s 2004 report (Spicer & DeBlois, 2004) on the top 10 issues facing
information technology in higher education. For the second year in a row, funding is the number one issue in terms of significance to the university, promise to become increasingly urgent, and utilization of administrator time. “Quite simply, total costs for information technology are increasing at a rate that exceeds the ability of colleges and universities to pay” (Spicer & DeBlois, 2004, p. 14).

The Educause Current Issues Committee (Spicer & DeBlois, 2004) poses specific and detailed questions under all 10 current issues identified that may be helpful to institutions in assessing approaches to funding and planning for information technology. The questions, which range from how institutions are planning and investing in technology, to how budget decisions for distance education are made, have much specificity and exceed the scope of this study. However, it is noteworthy that the first question asked under the funding issue presents an already familiar theme of system-wide planning for information technology as it relates to mission and strategic planning (Spicer & DeBlois, 2004).

Policy Issues

There are numerous policy issues facing higher education in regard to information technology and distance education. Dirr (2003, p. 474) notes that there is little evidence to indicate that distance education policies are being addressed in a systematic way within institutions. In reviewing the types of policies that affect institutions, Moore and Kearsley (2005) observe that administrative and operational barriers to distance education are found at federal, regional, state, and institutional levels. In a study of post-secondary institutions in Nebraska, several researchers (King, Nugent, Eich, Mlinek, & Russell, 2000a) classified distance education barriers into seven policy categories which were

The seven policy categories, known as the Policy Analysis Framework (PAF), include: academic; fiscal, geographic, and governance; faculty policies; legal policies; student policies; technical policies; and philosophical policies. King et al. (2000a) found the most policies in place in Nebraska institutions were in the academic category. There exists a continuing theme among academic policies of equivalency between distance education and regular course offerings, which suggested institutional interest in maintaining academic quality. In addition, these researchers concluded that distance education practice in the institutions studied had outpaced development of distance education policies (King et al., 2000a).

King, Nugent, Eich, Mlinek, & Russell (2000b) later collapsed the seven-area PAF to a Three-Tier Policy Analysis Framework (3-tier PAF) that looked at three broad areas of policy entitled: students, faculty, and management and organization. It was felt that this “shorter version” of the PAF would make it easier for administrators as they considered or planned for policy changes in distance education (King, et al., 2000b). For purposes of this study, all seven key policy areas in the King et al.(2000a) PAF are reviewed in an effort to look more specifically at the needs in the distance education system.

**Academic Policies**

The relevant policies in this area have to do with maintaining institutional integrity through providing guidelines for students, instruction, and curricula with regard to distance education (Simonson & Bauck, 2003). Most often, institutions have used an integrated instructional approach in setting academic policies, which may well be the
reason that this policy area is well-represented in many universities. Several researchers suggest that adapting existing policies that guide traditional education for distance education may be good strategy (Olcott, 2002; Simonson & Bauck, 2003).

Examples of types of academic policies that should be considered include course schedules and academic calendars, residency, transcripts, transferability, student admission, recruiting/marketing, student course evaluation, grading and assessment of students, and accreditation (King et al., 2000a; Simonson & Bauck, 2003). King, et al. (2000a) found that gaps in distance education academic policies were most likely to occur around transcripts and accreditation. Gellman-Danley and Fetzner (1998) believe the most important academic issue is the integrity of the courses offered and should be measured through on-campus committees and state and regional accrediting bodies and course evaluations.

**Fiscal, Geographic, and Governance Policies**

Policies in this category are mostly concerned with ownership of students, curriculums, and courses (Simonson & Bauck, 2003, p. 420), which include issues such as tuition rates, technology fees, FTE’s (full-time equivalencies), administration costs, state regulations, space, board oversight, staffing, and tuition disbursements (Berge, 1998; Gellman-Danley & Fetzner, 1998; King et al., 2000a). Other fiscal policies might include network fees, administration of student files, media and student support, and consortia agreements. For example, if two or more schools decide to share courses, policies should be established related to revenues and expenditures on offering and receiving of those courses (Simonson & Bauck, 2003). Tuitions rates, administrative costs and staffing policies were the most addressed in the institutions that King et al.
(2000a) studied. A majority of institutions, for instance, reported that they have a policy where students pay the same fees for distance education classes as for on-campus face-to-face classes. In contrast, little was found in regard to policies that addressed state fiscal regulations and board oversight of distance education programs (King, et al., 2000a).

**Faculty Policies**

One of the most challenging areas for policy developers are those that focus on faculty who teach distance education courses. Simonson and Bauck (2003, p. 421) state that labor-management policies are increasingly being extended to cover distance education but this area can still be difficult, especially if faculty are members of unions. They further suggest that the process may be less difficult if distance education policy in this area is integrated with traditional labor-management policies that already exist on campuses. Examples of relevant faculty policies include compensation and course loading, class size, incentives for course development, intellectual property rights for material developed, faculty training in technology and pedagogy, union issues, promotion and tenure, and support and evaluation of faculty (King et al., 2000a; Olcott, 2002; Simonson & Bauck, 2003).

King et al. (2000a) found that most institutions in their study had adequate policies on faculty compensation and workload that were unique to each institution. However, faculty support and training policies did not appear to be comprehensive and tended to range from very general and informal, to specific policy statements, and faculty evaluation policies were minimal in all the institutions studied.

Mechanic (2001) suggests that only limited comprehensive planning for faculty development is being done in higher education, especially in relation to the plethora of
instructional technologies available in most institutions. Lee (2002) found that even in institutions where instructional support was rated as high, faculty were not always made aware or trained in new technologies. Faculty in her study were also more concerned with the amount and quality of support services than with the variety of technology available (Lee, 2002). In a study by Wilson (2001) on faculty attitudes of distance education in nine Kentucky state-supported institutions, most faculty were not prepared to teach online, lacking technical support and reward from the universities they serve. Faculty in several studies ranked time as a big barrier in teaching online (Butler & Sellbom, 2002; Dickenson, Agnew, & Gorman, 1999; Wilson, 2001) and revealed that intrinsic factors, such as facilitating student learning, awards for excellent teaching, or rank and tenure credit were more satisfying than financial incentives (Lee, 2002; Wilson, 2001).

Several researchers (Chizmar & Williams, 2001; Dillon & Walsh, 1992; Mechanic, 2001; Wolcott, 2003) indicate that distance education is still not highly valued or rewarded as worthy scholarship on many campuses. This may be discouraging to innovative faculty who are willing to actively experiment with technology. Wolcott (2003) believes that in many institutions faculty are disproportionately compensated for their involvement in distance education and suggests that a change in reward for faculty is paramount. In a needs and attitudinal study done with full-time and part-time faculty at Illinois State University, Chizmar and Williams (2001) found that faculty who used instructional technology also wanted recognition from their institution. This finding is consistent with earlier research reviewed by Dillon and Walsh (1992). In the Chizmar and Williams's (2001) study six faculty needs emerged that may impact institutional
policy statements as they relate to faculty. These include: (a) instructional technology that is driven by pedagogical goals; (b) Web-based tools that are designed for specific task rather than one tool designed for many tasks; (c) technical experts to develop applications that are beyond their scope and time; (d) interaction with other peers on campus who are doing the same thing; (e) technical support and network services that are reliable and fast; and (f) recognition, both monetary and intrinsic, that is, rank, tenure, release time (Wilson, 2001, p. 22).

Legal Issues

Higher education administrators and faculty may not always be aware of legal issues that are involved in distance education. These policies, which involve copyright and fair use issues, student and faculty liability for inappropriate use of telecommunications, and intellectual property rights and restrictions, are necessary for administrators to address (King, et al., 2000a; Simonson & Bauck, 2003). Bates (2000) states that intellectual property, or the original ideas and thoughts of teachers, is unique from copyright issues, which is concerned with the actual materials developed by the teacher. He suggests that most universities already have policies on copyright and intellectual property for traditional education that could easily be enhanced to cover materials created for distance education. Bates (2000) recommends that new policies in copyright and intellectual property should also recognize faculty as well as departments by providing ways to share in the rights and royalties from created educational software and/or learning materials. Stien (2001, p. 28) notes that faculty will not be likely to delve into new learning technologies if they are not assured that “the intensive time and labor involved will be rewarded appropriately—both in terms of copyright and in terms of
promotion and tenure.” She believes that a collaborative team approach, similar to motion picture production teams of creative and technical staffs, should be used in developing technology enhanced or online courses in higher education (Stien, 2001). Bates (2000) agrees that a team approach to developing and delivering technology-based courses utilizes individual resources and skills appropriately.

In the research by King et al. (2000a) few policies were found in institutions that addressed the legal issues in distance education although they stated they felt this would change in coming years. Simonson and Bauck (2003) confirm this finding by noting that many institutions are beginning to offer comprehensive training programs that deal with digital copyright and liability (p. 421).

**Student Policies**

The majority of distance education students are female (Thompson, 1998) “non-traditional” learners; between 25 – 45, financially independent, attending college part-time, working full-time, have dependents, or are single parents (National Center for Education Statistics, 2002; Shea, Motiwalla, & Lewis, 2001). Policies that concern these students include advisement, counseling, library access, course and material delivery, test proctoring, student training and labs, registration, and financial aid (Gellman-Danley & Fetzner, 1998; King et al. 2000a; Simonson & Bauck, 2003).

Simonson and Bauck (2003) believe that policies connected with student learning in distance education can most often be integrated with general student policies already in place. These policies should be “clear, flexible, and widely understood, not only by students but also by faculty” (p. 421). As with other areas of policy development, general policies, such as supplying a syllabus that shows when assignments are due, would only
need to be modified in order to be of service to the distant student. King et al. (2000a) found overall student policies adequately addressed in the institutions studied. Most of these policies focused on ensuring that distant education provides quality learning and is equivalent to face-to-face education. King et al. (2000a) postulates that this heavy focus in development of student policy may be a reaction to cynical comments or concerns about lack of quality learning in distance education.

Existing state and federal student financial aid policies continue to be a barrier to distance education students (Dirr, 2003; Oblinger et al., 2001). Regulations that cause the most difficulty for students are those that require students to take 12 credits per semester and in organizations that offer at least half of their course offerings in traditional settings (Dirr, 2003; Oblinger et al., 2001). The Institute of Higher Education Policy (IHEP, 1998) report on student aid for distance learners made several recommendations for future policies in this area. Some of these include making student aid available regardless of how teaching is delivered, aid that is learner-centered rather than tied to academic programs, and aid limits that reflect lifetime standards rather than institutional maximums (Institute for Higher Education Policy, 1998).

Granger and Benke (1998) believe that ongoing student supports should be built right into distance education programs and outline several ways that assure student success online. Recommendations include (a) keeping administrative processes simple and convenient by utilizing fax, phone, and e-mail, (b) designing programs so that students can help themselves online, (c) providing back-up materials and systems in case of technical failures, and (d) continuing to learn from the system by accessing it as a learner would (Granger & Benke, 1998, p. 134).
Laird (2004) believes a serious omission made in starting online courses or programs can be lack of attention paid to online institutional support structures for students. He highlights a facilitation model of support to students that goes far beyond just technical support on campus, functioning more as the “legs” of students on campus (Laird, 2004). Hitt and Hartman (2003) stress that a broad array of support services such as advising, registration, financial aid, navigating course management systems, computer access to campus systems, 24-7 help desks, and special materials should be in place for the online student. Published practice standards for supporting students in online courses and programs are available from the American Federation of Teachers (AFT; Higher Education Program and Policy Council of the American Federation of Teachers, 2000).

Kansas State University, Kapi‘olani Community College, and Regis University participated in a collaborative 3 year project, starting in 2001, with the Western Cooperative for Educational Telecommunication (WCET) to create student services for the online environment. This innovative research, known as the WCET Learning Anytime Anywhere Partnerships (LAAP) project, found that students expected online services in neglected support areas such as tutoring, academic advising, counseling, and library services. Traditionally, online students have access to only the most common online services such as admissions, financial aid, and registration. To meet this need, the LAAP project focused their efforts around developing service modules for these neglected support areas that were customized to the needs of each student in Internet-based classes and programs. Additionally, this project created basic guidelines and templates that other institutions may access in order to provide comprehensive online services to students (Western Cooperative for Educational Telecommunications, 2003).
Oblinger et al. (2001) remind policy makers that The American With Disabilities Act (ADA) guidelines also apply to all distance education courses and programs. They believe that most material being produced now complies with ADA guidelines, but suggest the cost of modifying already existing instructional applications or web pages could cost thousands of dollars (Oblinger et al., 2001, p. 22). Another barrier that affects student access to education is the global phenomenon known as the digital divide. The digital divide is defined as “the gap between those who have and those who do not have access to the digital technology that is an essential prerequisite for online learning” (Moore & Kearsley, 2005, p. 210). Damarin (2000) defines several levels of access and ownership to digital technology: (a) those who own their own computers and have Internet access, (b) those who access computers and Internet at work or other locations, (c) those who have minimal access and little knowledge in how to use computers, and (d) those who have no experience with computers or other informational technologies. As with traditional education, it currently appears that accessibility to information technologies is still determined by race, income, education, and geographic areas (Moore & Kearsley, 2005).

In an effort to remedy the digital divide, the United States federal government has several policy initiatives that offer funding to develop technology programs in underserved areas or incentives for businesses that provide technology to schools in low-income areas. The private and non-profit sectors also work toward bridging the gap in accessibility. Policy initiatives usually fall into three categories: (a) providing low-cost Internet access and computers, (b) funding community computing centers, and (c) encouraging information specialists to provide community training. The Ford Motor
Company, Gates Foundation, Benton Foundation, Intel Corporation, and Cisco Systems are all examples of programs that promote taking computer education into schools (Moore & Kearsley, 2005, p. 213).

**Technical Policies**

Technical policies within an institution are those that are concerned with system reliability and student/faculty technical issues. Minimum standards should be developed on maintaining system reliability, hardware/software needs for connectivity/access, hardware/software purchases, setup and maintenance of infrastructure, and technical support staff and hours (King et al., 2000a; Simonson & Bauck, 2003). King et al. (2000a) discovered that policies regarding technical issues were addressed in most institutions in their study with many campuses structured in collaborative ventures.

Butler and Sellbom’s (2002) recent study on faculty resistance to adopting technology discovered that the number one reason faculty did not use technology in their teaching was due to unreliability of the technology. In addition, faculty felt that, when there was a technical problem, technical support staff response was slow and often demeaning. Butler and Sellbom (2002) found that faculty in their study defined reliability quite liberally (about three failures in a semester) and wondered if similar failure rates would be acceptable to them in use of cars, TV’s, or other technology. Problems of unreliability were described as “software that was incompatible between school and home office, mistakes by support services, software malfunctions, burned out light bulbs, slow Internet access, and out-of-date software” (Butler & Sellbom, 2002, p. 23). Shea et al. (2001) found that students also wanted better technical support and a more reliable online environment that gives quick feedback. In addition, they discovered
that faculty in their study valued technical support over teaching centers that provided
teaching and learning training (Shea et al., 2001).

Recommendations to help achieve reliable technology on campus include
purchase of highly reliable software, clear policies on maintenance of classroom
technologies, and rapid response to breakdowns. In addition, since organizational
support is was also a high determining factor in whether faculty adopt new technology, it
is recommended that universities restructure technical support services on campus and
make them as functional and responsive as possible (Butler & Sellbom, 2002).

Barone (2003) believes that standards for course software and hardware are
developed from practice. Faculty who use course management systems regularly are now
demanding greater flexibility and freedom in learner-centered systems so they may
collaborate with other colleagues and universities. It makes sense that standards in this
area should be developed in collaboration with teachers in an effort to find software and
hardware that are “affordable, supportable, and portable” (Barone, 2003, p. 43). Butler
and Sellbom (2002) also suggest that, in an effort to address the concern of some that
technology might not be critical in learning, standards should include appropriate
assessment and evaluation regarding the impact of technology on teaching and learning.

Philosophical/Cultural Policies

King et al. (2000a) describe policies addressing acceptance and understanding of
distance education within organizational values (mission and vision) as cultural. In
contrast, Simonson and Bauck (2003) call these same issues philosophical policies.
Regardless of which term is preferred, policies of this sort reflect recognition of the
credibility and importance that distance education has in relation to institutional mission
and values. Interestingly, King et al. (2000a) found little or no cultural policies within institutions studied and speculated that cultural policy in distance education may be difficult to conceptualize since it is primarily about values. Many in the field (Barone, 2001; Daniel, 1999; Katz, 1999; Moore & Kearsley, 2005; Pisel, 2001; Simonson & Bauck, 2003; Smith, 2002) recommend that philosophical/cultural statements in offering distance education should be reflected in the vision and mission statements and strategic plans of the institution.

The literature reviewed indicates only minor evidence of information technology and distance education policies being addressed in systematic ways in higher education. Policies affecting higher education institutions are found at the federal, regional, state and institutional levels (Moore & Kearsley, 2005). King, et al (2000a) classified information technology and distance education policies into seven specific categories. These categories, known as known as the Policy Analysis Framework (PAF) include: academic policies; fiscal, geographic, and governance policies; faculty policies; legal, policies; student policies; technical policies; and philosophical policies.

Collaboration

Collaboration between institutions may well be the educational challenge for the 21st century (Ringle, 2004) and will be a necessary element in the process of understanding and utilizing the new teaching technologies (Barone, 2003; Daniel, 1999). Moreover, Daniel (1999) believes that higher education may need to function in a variety of joint ventures in order to stay viable. Three important reasons for the necessity of institutional collaboration are: (a) to help each other understand the implications of new technologies as they emerge, (b) to help each other understand how to manage and set up
new technologies, and (c) to help each other afford these essential new technologies
(Balistri, 2000; Carnvale, 2000). Balistri (2000) believes that collaboration is not limited
to those whose mission is distance education and states “these collaborations are just as
critical for those of us who remain committed to residential teaching and learning as for
those who find and serve their students at a distance” (p. 63). Several experts in the field
(Barone, 2003; Carnvale, 2000) suggest that the appeal of collaboration is strong because
institutions want cost-effective ways to deliver student services and online courses
without having to reinvent the wheel.

Pacey and Keough (2003) outline three organizational forms that may be
characteristic of partnerships and collaboration: the corporate university, public-private
partnerships, and public-public collaborations. Thach and Murphy (1994), who studied
collaboration continuums, make distinctions between student-to-student collaboration,
class-to-class collaboration, and institution-to-institution collaboration. It is recognized
by these researchers that inter-institutional collaboration takes many forms, from working
together to provide complete degrees to partnering together for joint IT services (Thach
& Murphy, 1994).

Skerik, Gilbertson and Kiley (2000) provide an example of a unique business and
educational collaboration in northwestern Wisconsin between IBM, the Wisconsin Indian
Technical College system, and Ashland High School. The stated goal of the program is
to provide IBM A/S 400 programming training courses to high-school students with the
ultimate objective of assisting students in learning high-tech skills so they will be able to
land high-paying jobs. In this partnership, IBM provides AS/400 servers, network
computers (and upgrades), technical help, and job-finding assistance to students at
Ashland High School. Wisconsin Indianhead Technical College (WITC) is where the students (working in teams of two) take online courses to become AS/400 programmers, allowing them to receive dual credit toward high school and a 2-year associate college degree (Skerik et al. 2000). Ringle (2004) highlights several collaborative ideas between institutions to ease the high cost of information technology services such as security, staffing, and software licensing. These include inter-institutional peer workshops, security teams, policy teams, cross-sourcing (contract arrangements for programming or other work), coordinated product evaluation, and shared consulting (p. 43). Ringle (2004) also believes, due to the new trend in subscription pricing for commercial software, the most vital area of collaboration between institutions may be within the domain of software licensing.

The importance of institutional collaboration in information technology is illustrated well by 13-member higher education institutions in the Boston Consortium. The Boston Consortium, founded in 1998, collaborate together to provide IT training to faculty, staff, and students on their campuses. Brandeis, Harvard, MIT, Wheaton, and others in the consortium work together to provide creative training solutions that are cost effective and flexible. Examples of partnership activities include maximizing participation and resources in training through a “seat swap” program, leveraging collective bargaining power through vendor partnerships for classroom and web-based trainings, and informal forums to discuss similar interests and concerns (Cannata, Cavanaugh, Nicastro, Orr, & Wheeler, 2002).

Carnvale (2000) discusses two notable models of collaboration that demonstrate partnering for online course offerings. Western Governors University (WGU) and
Southern Regional Education Board’s Electronic Campus (SREB) are two virtual organizations that have very different approaches. WGU is organized like a freestanding university; its intent is to compete with existing colleges by bringing together under one system courses from a variety of member institutions for degree programs. Students take all their classes through WGU course offerings and, when completed, WGU awards the degree (Camvale, 2000). WGU was awarded regional accreditation by the Northwest Commission of Colleges and Universities in 2003 (Western Governor's University, n.d.).

In contrast, SREB took a different approach in starting a web site that provided member institutions a place in which to publicize their online course offerings. This collaborative approach, which left control of academics to individual colleges, has resulted in thousands of students taking online courses through SREB member schools. Carnvale (2000) suggests that many of the new collaborations and partnerships being developed in today’s higher education institutions mimic the decentralized approach that SREB has taken.

Dahl (2004) provides another example of inter-institutional partnership that was launched in fall of 2004 between the University of Washington, Syracuse University, and the University of Illinois at Urbana-Champaign. These three schools set up a collaborative online library science master’s program by cross-listing courses that are taught by all three institutions. Students register and pay tuition at their home schools. Each school in the partnership then receives a financial incentive for admitting the other schools’ students into their courses. This unique plan still allows students to take distance classes from multiple universities without their financial aid being affected (Dahl, 2004). Finally, Ringle (2004) believes for successful partnerships and
collaborations to take place, administrators must make good choices in partners, set realistic expectations and make clear commitments to the project.

Administrator Attitudes and Perceptions

A review of the literature yields little research about administrator attitudes and perceptions relating to distance education. Dillon and Walsh (1992) were among the first to recognize the need for further investigation into administrator attitudes while doing a study on faculty in distance education. Havice, Watson, Cawthon, and Underwood (2002) conducted a study on administrator attitudes and perceptions in support of distance-based education. Their sample included three different levels of administrators: Low level (heads and chairs of departments and schools); middle level (deans and chairs of divisions or colleges) and upper level (chief academic officers, provosts, and associate or assistant provosts). Results revealed that mid to upper level administrators had more positive attitudes toward distance education and had a greater willingness to support distance education than did lower level administrators. Additionally, administrators in this study expressed concern regarding support and resources for faculty participating in distance education. Finally, this study found that administrator exposure to distance education, either as a student or as an instructor, tended to lead to more positive attitudes toward distance education (Havice et al. 2002).

A recent study by Wilson (2002) focused on faculty and administrator attitudes regarding distance education in 54 affiliated Southern Baptist colleges and seminaries. Overall, administrators surveyed revealed that they are very positive about providing academic courses and programs online, and almost 80% said they planned to increase distance education offerings on their campuses in the future. They also indicated the
biggest motivators in providing distance education on campus were reasons related to
student satisfaction. When asked what factors influenced changed attitudes as it related
to the teaching of online courses, the number one answer from administrators was peer
influence followed by educational literature on the subject (Wilson, 2002).

Husmann and Miller's (2001) study on administrator attitudes focused exclusively
on distance education program administrators. Their study revealed that these
administrators perceived their role as one of facilitator rather than the person who would
make distance education successful on campus. These administrators additionally
revealed that they perceived the quality of distance education programming as based
almost solely on faculty teaching performance but understood that there were a number
of ways they could assist with improving distance education quality on campus. The two
most cited areas that program administrators saw as exclusively administrative functions
were their priority to ensure overall program quality and to develop new courses and
workshops that reflected new trends (Husmann & Miller, 2001).

Lee (2002), in a study on faculty and administrator perceptions of instructional
support for distance education, found that administrators tended to be more optimistic
about instructional support being provided on campus than did the teaching faculty.
Administrator optimism, however, did not translate into making certain that faculty were
informed as to the availability of instructional support services and where they would
obtain them. Additionally, administrators were found to be more interested in the variety
of support services that were being offered on campus over amount or quality of support.
This may be explained in part by the administrators' interest in having their institutions
viewed as equipped with the latest in technology (Lee, 2002).
Finally, Moore's (2002) *Technology Adoption Life Cycle* may be helpful in understanding administrator attitudes and acceptance of technology and distance education. His research on market penetration of new technology and products found there were five groups who emerge in adapting to the new technology: (a) innovators who tend to pursue new technology aggressively and often will have the technology before it is on the market, (b) early adopters who adapt to new products early in the life cycle and appreciate the benefits of new technology, (c) early majority are people with a sense of practicality who like to wait and see how the product really works before purchasing it themselves, (d) late majority are not comfortable with ability to handle technology and wait to adopt new technology until it is standard practice, and (e) laggards who do not want new technology and are not likely to pursue it (Moore, 2002, p. 10). These five groups are usually predictable within the norm of our society and may well reflect administrator attitudes and perceptions in their own decision making about technology and distance education.

Current literature reviewed suggests mid to upper level administrators have more positive attitudes and a greater willingness to support distance education than do lower level administrators (chairs and heads of departments) and faculty (Havice et al. 2002; Wilson, 2002). The biggest motivator for administrators in providing distance education on campuses is student satisfaction (Wilson, 2002). Administrator exposure to distance education as a student or a teacher (Havice et al. 2002) or peer influence and reading current literature on the subject (Wilson, 2002) led to more positive attitudes toward distance education. In addition, Lee (2002) found that administrators tended to be more optimistic for instructional support on campus than did faculty, but were poor
communicators about what types of instructional supports were available to faculty. Finally, understanding of administrator attitudes towards distance education and technology may be clarified, in part, when juxtaposed against Moore’s (2002) *Technology Adoption Life Cycle*.

**Benchmarks for Internet-based Distance Education**

Distance education systems are a complex array of factors such as instructional, technological, implementation, and organizational issues (Lockee, Moore, & Burton, 2002). Given the speed with which new technologies for teaching and learning are permeating even the most conservative universities and the lack of experience in managing these technologies, the case for researching and evaluating the applications becomes evident (Bates, 2000, p. 198). Lockee et al. (2002) suggest that evaluations of distance education programs be both formative (measuring internal quality) and summative (measuring how it works in the real world).

Bates (2000) calls for evaluation that is beyond replicating classroom learning and identifies a number of factors that should be considered when evaluating distance education teaching technologies for effectiveness. These factors include access and flexibility, costs, teaching and learning, interactivity and user-friendliness, organizational policies and procedures, novelty, and speed (Bates, 2000, p. 201). Others imply that the entire system of information technology and distance education be assessed and evaluated with procedures and outcomes outlined in specific technology and strategic plans (Foster & Hollowell, 1999; Pisel, 2001). Thompson and Irele (2003) indicate that evaluation of distance education is not much different from other educational activities in that evaluation is usually inadequately planned and more a postscript than an important
part in the planning process.

Currently, there are many recommendations, best practices, guidelines and principles that are available for the evaluation of the system of distance education (*Best Practices for Electronically Offered Degree and Certificate Programs*, n.d.; *Guidelines for Distance Education*, 1997; *Guiding Principles for Distance Learning in a Learning Society*, 1996; Higher Education Program and Policy Council of the American Federation of Teachers, 2000; Phipps & Merisotis, 2000; *Policy for Delivering Degree Programs through Distance Education Technology*, 1998; *Principles of Good Practice for Distance Learning/Web-based Courses*, n.d.). Policies for evaluation and assessment of distance education were developed in 1997 by the Council of Regional Accrediting Commissions (2002) in response to the emergence of distance education in higher education. In addition, Flashlight, a project of the non-profit firm of Teaching, Learning and Technology Affiliate of the American Association for Higher Education, has developed an assortment of survey instruments and interview questions aimed at assessing specific information technology in teaching and learning (Lippincott, 1999).

The focus of this study is, in part, about evaluation: to see whether the summative evaluation benchmarks developed in The Institute of Higher Education Policy (IHEP) study *Quality on the Line: Benchmarks for Success in Internet-based Distance Education* (Phipps & Merisotis, 2000) measured quality of online education in nine Adventist colleges and universities in North America. The benchmarks, which came out of best practices and recommendations over the years from institutions actively involved in distance learning, were initially developed for distance education. In the IHEP study, it was asked whether these benchmarks applied to Internet-based distance education and
were necessary to ensure quality online education in institutions (Phipps & Merisotis, 2000).

The National Education Association, which is the largest faculty professional association, and Blackboard Inc., an extensively used course management system for web-enhanced and web-based education, commissioned IHEP to validate all best practices and benchmarks that are specifically applicable to Internet-based distance education.

This IHEP benchmarks validation process involved a three-phase sequential study: first through a comprehensive literature review which produced 45 total benchmarks, then the identification of institutions representing leadership and vast experience in distance education, and the third phase involved site visits to each institution to determine the degree that the benchmarks are integrated into their facilities. Campus faculty, administrators, and students were surveyed and interviewed regarding the presence and importance of the 45 benchmarks. In the final analysis, several benchmarks were combined, 13 were eliminated, and 3 benchmarks were added. Twenty-four broad statements emerged as benchmarks found to be essential to quality distance education. The broad areas in which the benchmarks are clustered include: institutional support, course development, teaching/learning, course structure, student support, faculty support, and evaluation and assessment (Phipps & Merisotis, 2000).

The institutional support benchmarks address the institution’s efforts at maintaining an atmosphere favorable to quality Internet-based distance education through infrastructure and policy-making. These benchmarks include a documented technology plan, including a system providing for security; assurances of the reliability of the
technology delivery system; and a system supporting and maintaining the infrastructure of distance education (Phipps & Merisotis, 2000).

Course development benchmarks focus on the development of courses and courseware used in educational delivery (Phipps & Merisotis, 2000). The course development benchmarks are the availability of standards for course development, design, and delivery, the provisions for the review of course periodicals, and whether course design supports a learning environment in which students analyze, synthesize, and evaluate as part of the course requirements.

The teaching/learning category addresses teaching methods and pedagogy. These benchmarks involve the vital role of course interactivity, appropriate feedback given to students in a timely manner, and the use of effective research/assessment methods in determining the validity of resources (Phipps & Merisotis, 2000).

The benchmarks on course structure speak to the teaching/learning process from the standpoint of how the system’s policies, procedures, and resources support teaching and learning. The four course structure benchmarks are the provision of student advisement regarding motivation and minimum technology requirements prior to enrollment, providing students with course information in written form, the availability of library resources, and teacher and student agreement on the times for submission of assignments and faculty response (Phipps & Merisotis, 2000).

Student support benchmarks address not only the usual student services available on the campus at large but also include the needed training and support for taking an Internet-based course. These benchmarks involve students being made aware of the availability of programs, services, and processes such as admissions, tuition, fees, text
books, technical support, and other support services, hands-on training in using electronic sources, access to technical support throughout the course, and a system of responding to students' support needs in an appropriate and timely manner (Phipps & Merisotis, 2000).

Benchmarks for faculty support provide teachers with ongoing assistance to support the transition to Internet-based instruction. The benchmarks for faculty support are technical assistance in the development of online courses, assistance for faculty in the transition to Internet-based instruction including assessment, faculty training and mentoring are available throughout the course, and written materials are provided relating to student issues regarding the use of electronic sources (Phipps & Merisotis, 2000).

Evaluation and assessment centers around the policies and procedures for the evaluation of distance learning. Three benchmarks were identified in this category: (a) program evaluation, using more than one method and driven by standards of practice, (b) data on educational technology used in evaluating effectiveness, and (c) regular review of leaning outcomes.

Two additional studies (Jurczyk, Benson, & Savery, 2002; Sparrow, 2002) utilizing the IHEP benchmarks were located during literature review. Sparrow (2002) measured the quality of online education using IHEP benchmarks in nine state universities in Florida and found the majority of universities were meeting the benchmark standards. Jurczyk et al. (2002) adapted IHEP standards under course structure, student support, and teaching and learning to design a 22-question instrument to evaluate web-based research courses. They found that students and teachers gave high ratings in all three areas of the web-based course. *The Quality on the Line* study (Phipps & Merisotis, 2000) is also referenced by Dirr (2003) and Moore and Kearsley (2005) in their
discussions as a possible measure of institutional assessment and evaluation of quality online distance education.

Summary

This chapter has reviewed the literature on distance education from an institutional/organizational perspective: the history, the theoretical underpinning of distance education, the systems approach that supports distance education, current trends and debates, administrator issues, concerns, attitudes, and perceptions. Finally, the IHEP benchmarks were reviewed as an evaluation and assessment tool to measure quality Internet-based education. These benchmarks were used in this study to measure the quality of online education in nine Adventist institutions of higher education.
CHAPTER THREE

METHODOLOGY

Introduction

The purpose of this chapter is to present the research rationale and design used to study distance education in Adventist colleges and universities utilizing the IHEP benchmarks. The chapter contains information about the population studied, sampling process, data collection, data analysis, validity, reliability, and generalizability.

Collaborative Study

This research study is part of a collaboration focusing on distance on-line education using the IHEP benchmarks for success in Internet-based distance education. This study focused on the Adventist higher education administrative perspective in Internet-based distance education while at the same time my colleague, Susan Smith, looked at Internet-based distance education from the perspective of faculty in these same institutions. The rationale for use of a collaborative approach to this study is to provide a broader perspective and description of distance education in NAD colleges and universities.

Research Design

The design for this study is a sequential exploratory mixed-methods approach (see Figure 1). Creswell (2003) defines sequential mixed-method as a study that collects and
Figure 1. Sequential exploratory mixed-methods design QUAN->qual.
analyzes both qualitative and quantitative data using one method to expand the other. This study used the sequential method by first collecting broad numeric quantitative data, followed by the collection of qualitative data through interviews of research subjects (Creswell, 2003; Onwuegbuzie & Teddlie, 2003). Terminology for mixed-method approaches is varied and includes names such as integrative, multi-method, convergent, and combined. Since “mixed-methods” appears most often in recent literature (Tashakkori & Teddlie, 2003), it is being utilized as a descriptor of this research design.

**Rationale for Research Design**

The rationale for using the sequential mixed-method design includes the expectations that qualitative methods will develop the data collected quantitatively (Creswell, 2003; Onwuegbuzie & Teddlie, 2003), and the research design best fits the pragmatic philosophy reflected in distance education literature (Maxcy, 2003; Saba, 2003). Pragmatic researchers are not bound by a particular research method due to their focus on the problem. This focus of problem over method naturally embraces the use of mixed-methods in research and frees the researchers from a dualistic perspective that separates intellect from practice (Creswell, 2003).

Saba (2003) speaks directly to pragmatism in studying distance education by stating that “pragmatism is evident in the search for ‘best practices’ and the establishment of methodological benchmarks” (p. 3). Further, pragmatism as a foundation could help distance education formulate new paradigms (Saba, 2003). Distance education theorists are calling for future research to test theoretical models by focusing on practice in distance education (Garrison, 2000; Moore & Kearsley, 2005). Pragmatism connects intellectual concepts with actual experiences to form a plan of action in order to find
answers to specific problems (Morris, 1970). This notion is consistent with this study because it provides a rationale for connecting concepts and practices to influence institutional strategic planning in distance education. Further, as members of the community being studied, we have an intrinsic desire to promote quality distance education that includes conceptual reflection, best practices, and intentional planning. It has also been suggested that one contribution of a pragmatic focus in research is to offer the community technical knowledge and new information (Cherryholmes, 1992). This knowledge may present an integrated view of why and how the system is operating and suggest areas for further planning and research.

**Research Questions**

The questions concerning the nine Adventist Colleges and universities in this study are as follows:

1. To what extent do these Adventist colleges and universities demonstrate quality Internet-based distance education as measured by the IHEP benchmarks?

2. What other issues are identified that are important to administrators regarding Internet-based education?

These questions represent a broad overview of the purpose of this study. Specific hypotheses developed for the quantitative portion of this study include:

**Hypothesis 1:** Adventist colleges and universities involved in Internet-based distance education meet the IHEP benchmarks for high-quality distance education.

**Hypothesis 2:** There is no difference between the levels of experience of administrator/faculty perceptions on the IHEP benchmarks.
Hypothesis 3: There is no difference between administrator and faculty perceptions on IHEP benchmarks.

Hypothesis 4: There is no difference between administrator and faculty perceptions regarding their roles in visioning, strategic planning, and policy-making.

Hypothesis 5: There is a correlation between faculty compensation for teaching online courses and their consideration to teach online for another institution.

Hypothesis 6: There is no difference between administrator and faculty perceptions regarding the importance of Internet-based distance education to the future success of their institutions.

Participants

Descriptive information regarding the participants in the quantitative and qualitative interviews is presented in this section. In addition to the participant descriptions, greater details are provided regarding the sampling methods used to select the participants.

Participants for Quantitative Survey

Administrators and instructors from the nine participating institutions that offer Internet-based courses were surveyed using the IHEP benchmark tool. Attempts were made to survey all the following administrators from each institution: presidents, vice-presidents for academics, finance, and enrollment; and directors of distance education, information technology, and academic computing. Attempts were also made to survey all faculty teaching at least one course online from the 2002-2003 academic year to the date of data collection. The institution’s ADEC board representative was also surveyed.
Names for survey list were developed in collaboration with each institution's office of Academic Administration.

As a result, 149 electronic surveys were sent to administrators and teachers in nine Adventist higher education institutions offering Internet-based distance education with a return rate of 58%. Of the 87 administrators and teachers who responded to this survey, 49 were males and 33 were females. Five respondents did not provide demographic information. Fifty-two teachers and 35 administrators responded to the survey. The administrative positions represented included: Presidents (n=5), Academic Vice-Presidents (n=6), Vice-Presidents of Finance (n=4), Vice-Presidents of Enrollment (n=4), Directors of Distance Education (n=6), Directors of Information Technology (n=6), and Other (n=4) with missing data from one respondent. One administrator held dual roles of Vice-President of Academic Administration and Director of Distance Education, and all who identified themselves as ADEC representatives held one other administrative role.

In addition, the data revealed a group who reported both online teaching experience and active administrative responsibilities. These participants, who we refer to as Admin/Teachers, had administrative responsibilities that ranged from Vice-Presidents to Dean/Chair and Directors. When considering the category of administrator/teacher, the sample ratios for positions in three categories identified 25 administrators, 41 teachers, and 21 administrator/teachers.

Forty-four of the respondents held a doctoral degree, with 29 reporting master’s degrees, and 9 bachelor’s degrees. Respondents’ total years in higher education are
represented by three categories: 1-10 years \((n=27)\), 11-20 years \((n=36)\), 21+ years, \((n=19)\).

Participants for Qualitative Interviews

The nine participants interviewed in the qualitative portion of this study represented each of the nine institutions and were selected because they were the most frequently identified experts on their campuses. The process of identifying these experts involved (a) asking each survey respondent to identify an Internet-based distance education expert(s) on their campus, and (b) reviewing all names submitted to determine the most frequently cited individual per campus. The expert from each campus was then interviewed by telephone using semi-structured questions. Each interview was recorded and transcribed for data analysis.

Data Collection

Quantitative Instrument

The Institute for Higher Education Policy (Phipps & Merisotis, 2000) survey consists of 24 benchmarks grouped into seven broader categories of: institutional support, course development, teaching/learning, course structure, student support, faculty support, and evaluation and assessment. Some of these benchmarks are institutionally-controlled while others are instructor controlled. The original Institute for Higher Education Policy (IHEP) study asked participants to rate both the presence and importance of each benchmark. In this study, participants were asked to rate the presence of the 24 benchmarks in their institution. IHEP survey questions have not been modified and are being used with permission of The Institute for Higher Education Policy. The instrument
used collected demographic information during the administration of the benchmark survey (see appendix A).

The trait of quality can be an elusive characteristic to measure with a high degree of validity (Patten, 2002). The ability to define quality distance education is an important element in the effort to establish validity. The research conducted by IHEP helps lessen the problem of the elusiveness of measuring quality. The IHEP benchmark study (Phipps & Merisotis, 2000) conducted a comprehensive literature search that reviewed benchmarks for quality that appear in academic literature and organizations, compiling some 45 benchmarks in total. They then identified six institutions that are recognized as leaders in quality distance education due to extensive experience. All of the institutions were accredited and offered more than one distance learning degree program. Each campus was visited, and thorough interviews were conducted. A survey was also administered asking the research participant to rate each of the 45 benchmarks on two criteria: (a) the extent of the benchmark's presence in their institutions, and (b) how important the benchmark is in its contribution to quality distance education. After analyzing the quantitative and qualitative data, the study found 24 benchmarks essential to ensure quality online distance education. Due to the use of expert judgments regarding benchmarking, content validity is seen as a strength when attempting to determine quality through the use of the 24 IHEP benchmarks as the survey instrument in this study (Patten, 2002).

Although the IHEP survey has been used in multiple studies, statistical evidence of the reliability of the IHEP survey has not been found. Internet-based distance education is still a new and growing field of study with limited available reliable
instrumentation. Future studies should focus on establishing reliability and validity of the IHEP benchmark survey.

Qualitative Interview

Qualitative interview questions expanded upon the survey data in the quantitative phase of the study. Questions in the narrative inquiry focused on the boundaries of time: past, present, and future (Clandinin & Connelly, 2000). These questions were: Your colleagues have identified you as an expert in Internet-based education. Why do you think you are considered an expert on your campus? How did you get into the business of Internet-based distance education? Why are you presently involved? What are the most pressing issues for the future of Internet-based distance education? An additional follow-up question was asked via e-mail: Does your university have a technology and/or distance education plan or a strategic plan that addresses distance education campus-wide? If yes, who should we contact on your campus to get a copy of this plan? If readily accessible, can you provide a link or attach a copy of the plan to this e-mail? Qualitative protocol can be found in appendix A.

When addressing the validity of the qualitative aspect of this study, Creswell (2003) suggests that validity is a strength of qualitative research as it provides insight into the accuracy of findings from the vantage point of the research participant. Construct validity defined as the “collection of related behaviors that are associated in a meaningful way” (Patten, 2002, p. 61) is seen in the clustering of the 24 benchmarks used in the quantitative study and by asking research participants in the qualitative phase of the study for their perspectives on distance education. Using qualitative data to inform the
quantitative data also enhances the content validity of the study (Creswell, 2003; Patten, 2002).

**Procedures**

The data analysis was composed of two phases, first the collection and analysis of the quantitative data, followed by the qualitative data collection and analysis. The relationship between the quantitative and qualitative data was examined in terms of the elaboration of the quantitative data through the qualitative data.

**Quantitative Survey**

The 149 quantitative participants were informed of the survey by e-mail and provided with a URL for an electronic version of the survey via e-mail. Three weeks after the survey was sent, an e-mail with a hyperlink was sent to all non-respondents. Two weeks later, a final notice was sent via e-mail with a hyperlink to the survey to all remaining non-respondents. SurveyMonkey software was used to develop and manage the survey responses.

**Qualitative Interview**

Participants in the qualitative interviews were selected from the pool of experts identified from the IHEP benchmark survey that asks research participants to identify 1 distance education expert on their campus. One expert from each campus was interviewed to obtain qualitative data relating to emerging themes and stories of Internet-based education. Participants for the qualitative survey were interviewed by telephone. The interviews were audiotaped and transcribed for analysis. Qualitative interviews were assigned numbers upon their receipt.
Data Analysis

The quantitative phase of the study involved a descriptive analysis of the data using the Statistical Package for Social Science (SPSS). SPSS was used to: summarize the data by computing the means and standard deviation, establishing whether there were significant differences between the groups being studied through the use of $t$ tests and an analysis of variance (ANOVA), and to study relationships among variables.

In the qualitative phase of the study, the data were organized by transcribing the interviews for analysis of its overall content. In a more detailed analysis utilizing the computer software HyperResearch, data were coded and labeled in order to identify emerging institutional and instructional themes.

A five-stage process as described by Onwuegbuzie and Teddlie (2003) was used for data analysis. This involved a sequential analysis of the quantitative data followed by the qualitative data analysis for the purpose of complementarity to enhance, illustrate, and clarify the results from the quantitative analysis with the results of the qualitative analysis (Greene & Caracelli, 1997).

The five stages of analysis involved: data reduction, data display, data transformation, data comparison, and data integration (Onwuegbuzi & Teddlie, 2003). In the data reduction stage, the quantitative data were analyzed using descriptive statistics, $t$ tests, and analysis of variance. The qualitative data were analyzed using the constant comparative method of exploratory thematic analysis (Lincoln & Guba, 1985). The steps in the thematic analysis were:

1. The review of the interview transcripts.
2. Each idea (unit) was specified and listed without categorization.
2. Each idea (unit) was specified and listed without categorization.

3. The IHEP benchmarks served as the *a priori* context for creating the thematic categories however the categorization of each unit was not limited to the benchmarks as new themes emerged from the participants.

4. Clusters of themes were developed with units that were similar and matched the IHEP literature (Phipps & Merisotis, 2000) on the benchmarks; however, if they were unrelated to the benchmarks, new themes were developed.

5. Finally, the units were reviewed and compared again to ensure appropriate thematic placement.

In the data display stage, the reduced quantitative data were displayed using tables and graphs and the qualitative data were displayed through matrices, tables, and graphs. The data transformation phased involved qualitizing (Tashakkori & Teddlie, 1998) the quantitative data through thematic exploration of the open-ended questions on the survey, identification of campus experts, and the creation of the profile of an administrator/teacher as a position. The qualitative data were quantitized (Tashakkori & Teddlie, 1998) in order to calculate effect size through the development of inter-respondent and intra-respondent matrices (Onwuegbusie & Teddlie, 2003).

The quantitative and qualitative results are reported separately, and aspects of the data were compared when appropriate, in order to clarify and illustrate quantitative findings with content from the qualitative interviews.
Generalizatibility

The results may be generalizable to other small faith-based institutions offering Internet-based distance education through application of skills, images, and/or ideas generated from the broad themes in the data (Eisner, 1998).

Summary

In summary, this chapter provided information regarding the rationale for the use of a sequential mixed-methods design from a pragmatic research philosophy. An explanation for the use of purposeful sampling procedure was given, as well as data collection using an electronic version of the IHEP survey for quantitative data collection and telephone interviews for the qualitative data collection. Methods for data analysis using SPSS in the quantitative phase and coding in the qualitative phases of the study were described. Validity and reliability were addressed, based upon past uses of the IHEP survey and mixed-methods approaches in other studies that lend content validity and reliability to the survey instrument. Issues of generalizability were discussed.
CHAPTER FOUR

RESULTS

Introduction

This chapter provides the results of the quantitative phase of the study followed by the qualitative results. The quantitative and qualitative results are reported separately, and aspects of the both sets of data compared in order to clarify and illustrate quantitative findings with content from the qualitative interviews.

Quantitative Results

The purpose of this portion of the results section is to present the outcome of the analysis completed on the quantitative data. The quantitative results section includes: a descriptive summary of the results of the survey, statistical analyses of the perceptions of administrators versus teachers on the benchmarks, role identification by position, benchmark perceptions by number of years in higher education and position, teaching compensation and moonlighting, the perceptions of the importance of IBDE by position, and benchmark perceptions by gender.

Benchmark Summary Statistics

The survey (see Appendix A) responses to the 24 benchmarks are summarized (Tables 1 through 7) in an attempt to address research question 1 regarding the extent to which North American Adventist colleges and universities demonstrate quality Internet-
items 1-24 on the survey. Each question was asked on a 5-point Likert-type scale. Response values were assigned as follows: strongly disagree (SD) = 1, disagree (D) = 2, neutral (n) = 3, agree (A) = 4, and strongly agree (SA) = 5. A mean score above 3 (neutral) is viewed as an affirmative response to the benchmark. Respondents were also given the option of answering “I don’t know” to each item, which was not calculated into the mean score for the item.

The 24 benchmarks are divided into seven categories: institutional support, course development, teaching/learning, course structure, student support, faculty support, and evaluation and assessment. Tables 1 to 7 present the summary data to each benchmark question and are clustered together by the above-named categories.

Institutional Support Benchmarks

In the category of institutional support (see Table 1) the respondents (N = 87) gave affirmative mean score responses to the three benchmarks of having “a technology plan that addresses security and is operational to ensure quality, integrity, and validity of information” (item 1), “a reliable delivery system” (item 2), and “a centralized system that provides support for building and maintaining the distance education infrastructure” (item 3) with mean scores of 4.16, 3.95, and 4.14 respectively. In response to the presence of a documented technology plan, 67% of the sample either agreed or strongly agreed, although 15% (n = 13) of the participants selected the “I don’t know” option. Seventy-one percent (n = 61) of the sample indicated that they agreed or strongly agreed to item 2 regarding a reliable technology delivery system. On item 3, a centralized system for
distance education, 79% of the sample \( n = 68 \) responded that they agreed or strongly agreed.

Table 1

Summary Statistics for Institutional Support Benchmarks

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<tbody>
<tr>
<td>Documented technology plan</td>
<td>2 (2%)</td>
<td>8 (9%)</td>
<td>6 (7%)</td>
<td>18 (21%)</td>
<td>40 (46%)</td>
<td>13 (15%)</td>
<td>4.16</td>
</tr>
<tr>
<td>Reliable technology delivery system</td>
<td>1 (1%)</td>
<td>7 (8%)</td>
<td>11 (13%)</td>
<td>37 (43%)</td>
<td>24 (28%)</td>
<td>7 (8%)</td>
<td>3.95</td>
</tr>
<tr>
<td>Centralized system for distance education</td>
<td>4 (5%)</td>
<td>8 (9%)</td>
<td>4 (5%)</td>
<td>24 (28%)</td>
<td>44 (51%)</td>
<td>3 (3%)</td>
<td>4.14</td>
</tr>
</tbody>
</table>

Total Respondents 87

Skipped these questions 0

Course Development Benchmarks

In regards to the course development benchmarks (see Table 2) the respondents \( N = 86 \) gave affirmative mean score responses to these three benchmarks. Item 4 on the survey addresses having “guidelines for minimum standards used for course development, design, and delivery” with a mean score of 3.74, and 64% \( n = 55 \) of the respondents answering that they either agree or strongly agree. Item 5 states that “instructional materials are reviewed periodically to ensure that they meet program standards,” receiving a mean score of 3.62, and 54% \( n = 47 \) of the sample indicating that they agree or strongly agree. Item 6 outlines that courses are designed to “require
students to engage in analysis, synthesis, and evaluation” with a mean score of 4.14, and 76% \((n = 65)\) of the sample showing that they agree or strongly agree.

Table 2

Summary Statistics for Course Development Benchmarks

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<tbody>
<tr>
<td>Guidelines for course development</td>
<td>6 (7%)</td>
<td>12 (14%)</td>
<td>7 (8%)</td>
<td>27 (31%)</td>
<td>28 (33%)</td>
<td>6 (7%)</td>
<td>3.74</td>
</tr>
<tr>
<td>Instruction materials are reviewed</td>
<td>5 (6%)</td>
<td>16 (19%)</td>
<td>9 (10%)</td>
<td>20 (23%)</td>
<td>27 (31%)</td>
<td>9 (10%)</td>
<td>3.62</td>
</tr>
<tr>
<td>periodically</td>
<td></td>
<td></td>
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<td></td>
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<td></td>
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</tr>
<tr>
<td>Students are engaged in analysis,</td>
<td>1 (1%)</td>
<td>3 (3%)</td>
<td>11 (13%)</td>
<td>34 (40%)</td>
<td>31 (36%)</td>
<td>6 (7%)</td>
<td>4.14</td>
</tr>
<tr>
<td>synthesis, and evaluation</td>
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<td></td>
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</table>

Total Respondents 86
Skipped these questions 1

Teaching/Learning Benchmarks

The teaching/learning benchmarks (see Table 3) also indicated that the respondents \((N = 84)\) gave affirmative mean score responses to each of these three benchmarks. In response to item 7 regarding “student interactions with faculty and other students as an essential course characteristic,” the mean score was 4.40 with 60% \((n = 50)\) of the sample indicating that they strongly agree and another 27% \((n = 23)\) that they agree. Item 8 states that “feedback to student assignments and questions is constructive and timely” and has a mean score of 4.25 with 81% \((n = 68)\) of the sample indicating that they agree or strongly agree. Item 9, stating that “students are instructed in the proper methods of effective research,” obtained a mean score of 3.87, and 57% \((n = 48)\) of the
sample selected either agree or strongly agree. It was also noted that on item 9, 18% ($n = 15$) of the respondents indicated that they did not know.

Table 3

Summary Statistics for Teaching/Learning Benchmarks

<table>
<thead>
<tr>
<th>Benchmarks</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Don't Know</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student interaction with faculty and other students</td>
<td>3 (4%)</td>
<td>2 (2%)</td>
<td>4 (5%)</td>
<td>23 (27%)</td>
<td>50 (60%)</td>
<td>2 (2%)</td>
<td>4.40</td>
</tr>
<tr>
<td>Student feedback is constructive and timely</td>
<td>3 (4%)</td>
<td>1 (1%)</td>
<td>5 (6%)</td>
<td>33 (39%)</td>
<td>35 (42%)</td>
<td>7 (8%)</td>
<td>4.25</td>
</tr>
<tr>
<td>Students are instructed in proper methods of research</td>
<td>2 (2%)</td>
<td>6 (7%)</td>
<td>13 (15%)</td>
<td>26 (31%)</td>
<td>22 (26%)</td>
<td>15 (18%)</td>
<td>3.87</td>
</tr>
</tbody>
</table>

Total Respondents 84
Skipped these questions 3

Course Structure Benchmarks

Items 10-13 correspond to the course structure benchmarks (see Table 4). The respondents ($N = 84$) gave mean score affirmative responses to each of these four benchmarks. The benchmark (item 10) stating that “students are advised about the program to determine self-motivation and minimal technology” had a mean score of 3.43. Although the mean score of 3.43 indicates a score above neutral towards agree, it was noted that 56% of the sample did not select agree or strongly agree. Responses to this question show an array of answers with the highest being 24% ($n = 20$), indicating
that they agree, followed by strongly agreed at 20% \((n = 17)\), the neutral response with 18% \((n = 15)\), "I don’t know" at 17% \((n = 14)\), 14% \((n = 12)\) selecting disagree, and finally 7% \((n = 6)\) indicating that they strongly disagree.

Table 4

**Summary Statistics for Course Structure Benchmarks**

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</tr>
</thead>
<tbody>
<tr>
<td>Students are advised to determine self-motivation and minimal technology requirements</td>
<td>6 ((7%))</td>
<td>12 ((14%))</td>
<td>15 ((18%))</td>
<td>20 ((24%))</td>
<td>17 ((20%))</td>
<td>14 ((17%))</td>
<td>3.43</td>
</tr>
<tr>
<td>Students are provided materials outlining course objective, concepts, &amp; ideas</td>
<td>0 ((0%))</td>
<td>2 ((2%))</td>
<td>5 ((6%))</td>
<td>22 ((26%))</td>
<td>45 ((54%))</td>
<td>10 ((12%))</td>
<td>4.49</td>
</tr>
<tr>
<td>Students have access to sufficient library resources</td>
<td>2 ((2%))</td>
<td>3 ((4%))</td>
<td>5 ((6%))</td>
<td>32 ((38%))</td>
<td>40 ((48%))</td>
<td>2 ((2%))</td>
<td>4.28</td>
</tr>
<tr>
<td>Faculty and students agree upon time expectations</td>
<td>2 ((2%))</td>
<td>4 ((5%))</td>
<td>9 ((11%))</td>
<td>27 ((32%))</td>
<td>28 ((33%))</td>
<td>14 ((17%))</td>
<td>4.07</td>
</tr>
</tbody>
</table>

Total Respondents 84
Skipped these questions 3

Item 11 is the benchmark that addresses whether “students are provided with supplemental course information that outlines course objectives, concepts, ideas, and learning outcomes.” Eighty percent of the sample \((n = 67)\) selected that they agree or strongly agree on item 11 with a mean score of 4.49. Item 12 regarding “access to
sufficient library resources” had a mean score of 4.28 with 86% \( (n = 72) \) of the sample indicating that they either agree or strongly agree (see Table 4). The last course structure benchmark is item 13 which asks whether “faculty and students agree upon expectations regarding time for assignment completion and faculty response.” This received a mean score of 4.07 with 65% \( (n = 55) \) who either agree or strongly agree; however, 17% \( (n = 14) \) indicated that they did not know.

**Student Support Benchmarks**

In regards to the student support benchmarks (see Table 5) the respondents \( (N = 82) \) gave affirmative mean score responses to these four benchmarks. The benchmark found in item 14 has a mean score of 4.21 and it states that “students receive information about programs, including admissions requirements, financial information, technical and proctoring requirements, and student support services.” Item 15 on the survey addresses whether students are “provided with hands-on training and information to aid them in securing material through electronic sources” and received a mean score of 3.41. Although this mean score is between neutral and agree and the most frequently selected answer was agree (32%), it was also noted that 54% of the sample did not respond that they agreed or strongly agreed. Item 16 states that “students have access to technical assistance, including detailed instructions regarding electronic use, practice sessions prior to the course and convenient access to technical support staff;” this received a mean score of 3.90, and 59% \( (n = 48) \) of the sample indicated that they agree or strongly agree. Item 17 outlines that questions directed to student services personnel are answered accurately and quickly, with a structured system in place to address student complaints, with a mean
score of 3.56. Of interest on this item, 34% \((n = 28)\) of the respondents indicated that they did not know.

Table 5

*Summary Statistics for Student Support Benchmarks*

<table>
<thead>
<tr>
<th></th>
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<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Students receive information about program</td>
<td>3 (4%)</td>
<td>2 (2%)</td>
<td>7 (9%)</td>
<td>26 (32%)</td>
<td>35 (43%)</td>
<td>9 (11%)</td>
<td>4.21</td>
</tr>
<tr>
<td>Students are provided with hands-on training in securing electronic data</td>
<td>4 (5%)</td>
<td>14 (17%)</td>
<td>13 (16%)</td>
<td>26 (32%)</td>
<td>12 (15%)</td>
<td>13 (16%)</td>
<td>3.41</td>
</tr>
<tr>
<td>Students have access to technical support</td>
<td>3 (4%)</td>
<td>7 (9%)</td>
<td>15 (18%)</td>
<td>17 (21%)</td>
<td>31 (38%)</td>
<td>9 (11%)</td>
<td>3.90</td>
</tr>
<tr>
<td>Student services answers questions quickly with a secure system to address complaints</td>
<td>3 (4%)</td>
<td>11 (13%)</td>
<td>8 (10%)</td>
<td>17 (21%)</td>
<td>15 (18%)</td>
<td>28 (34%)</td>
<td>3.56</td>
</tr>
</tbody>
</table>

Total Respondents 82  
Skipped these questions 5

**Faculty Support Benchmarks**

On the faculty support benchmarks (see Table 6) the respondents \((N = 83)\) gave affirmative mean responses to all four benchmarks. Item 18 on the survey addresses whether “technical assistance in course development is available to faculty, who are encouraged to use it.” This item had a mean score of 4.18, and 75% \((n = 62)\) of the
respondents answered that they either agreed or strongly agreed. Item 19 states that “faculty members are assisted in the transition from classroom teaching to online instruction and are assessed during the process”. This statement received a mean score of 3.41, and 53% \((n = 44)\) of the sample indicated that they agreed or strongly agreed. Item 20, with a mean score of 3.23, outlines that “instructor training and assistance, including peer mentoring, continues through the progression of the online course.” Scores on item

<table>
<thead>
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<th>Table 6</th>
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</table>

**Summary Statistics for Faculty Support Benchmarks**

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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical assistance available to faculty</td>
<td>3 (4%)</td>
<td>6 (7%)</td>
<td>7 (8%)</td>
<td>20 (24%)</td>
<td>42 (51%)</td>
<td>5 (6%)</td>
<td>4.18</td>
</tr>
<tr>
<td>Faculty assistance in transition from classroom to online instruction</td>
<td>9 (11%)</td>
<td>13 (16%)</td>
<td>13 (16%)</td>
<td>25 (30%)</td>
<td>19 (23%)</td>
<td>4 (5%)</td>
<td>3.41</td>
</tr>
<tr>
<td>Faculty training, assistance and mentoring available throughout course</td>
<td>11 (13%)</td>
<td>11 (13%)</td>
<td>14 (17%)</td>
<td>19 (23%)</td>
<td>15 (18%)</td>
<td>13 (16%)</td>
<td>3.23</td>
</tr>
<tr>
<td>Written resources are available to deal with student use of electronic data</td>
<td>11 (13%)</td>
<td>19 (23%)</td>
<td>8 (10%)</td>
<td>18 (22%)</td>
<td>15 (18%)</td>
<td>12 (14%)</td>
<td>3.10</td>
</tr>
</tbody>
</table>

Total Respondents 83

Skipped these questions 4
20 spanned from 13% who strongly disagreed, to a high of 23% who agreed, and 16% who indicated that they did not know.

Item 21, with a mean score of 3.10, stated that “faculty members are provided with written resources to deal with issues arising from student use of electronically accessed data.” The most frequently selected response (23%) was disagree with an additional 13% who strongly disagree, 10% were neutral, and 14% indicated that they did not know.

**Evaluation and Assessment Benchmarks**

In the last benchmark category of evaluation and assessment (see Table 7) the respondents ($N = 83$) gave affirmative mean score responses to these three benchmarks. Item 22 states that the “program’s educational effectiveness and teaching/learning process is assessed through an evaluation process that uses several methods and applies specific standards,” with a mean score of 3.60, and 52% ($n = 43$) of the respondents answering that they either agreed or strongly agreed. However, 16% ($n = 13$) indicated that they did not know. Item 23, “enrollment, costs, and successful/innovative uses of technology are used to evaluate program effectiveness,” received a mean score of 3.29. The most frequently given answer to item 23 was “I don’t know” with 29% ($n = 24$) of the sample, followed by 20% ($n = 17$) indicating that they disagree. Item 24 outlines that “intended learning outcomes are reviewed regularly to ensure clarity, utility, and appropriateness,” with a mean score of 3.62 and 51% ($n = 42$) of the sample showing that they agree or strongly agree, while 18% ($n = 15$) did not know.
Table 7

**Summary Statistics Evaluation and Assessment Benchmarks**

<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluation process in place</td>
<td>6 (7%)</td>
<td>10 (12%)</td>
<td>11 (13%)</td>
<td>22 (27%)</td>
<td>21 (25%)</td>
<td>13 (16%)</td>
<td>3.60</td>
</tr>
<tr>
<td>Data used to evaluate program effectiveness</td>
<td>6 (7%)</td>
<td>17 (20%)</td>
<td>5 (6%)</td>
<td>16 (19%)</td>
<td>15 (18%)</td>
<td>24 (29%)</td>
<td>3.29</td>
</tr>
<tr>
<td>Learning outcomes are reviewed regularly</td>
<td>6 (7%)</td>
<td>10 (12%)</td>
<td>10 (12%)</td>
<td>20 (24%)</td>
<td>22 (27%)</td>
<td>15 (18%)</td>
<td>3.62</td>
</tr>
</tbody>
</table>

Total Respondents 83
Skipped these questions 4

**Future Distance Education Plans**

Respondents were asked (item 37) to indicate their institution’s future plans regarding Internet-based distance education in terms of whether they plan to increase, decrease, or stay the same over the next 3 years. Participants were also given the option of selecting “I don’t know.” Figure 2 shows that 77% of the sample (N = 82) stated that their institution’s plan was to increase online distance education over the next 3 years, while none reported that they intended to decrease.
Future Plans Over the Next 3 Years

Figure 2. Institutional plans for Internet-based distance education over the next 3 years.

Importance of Internet-based Distance Education

Item 38 asked participants to rank how important they felt Internet-based distance education is for the future success of their institution on a 5-point scale with 1 = not important, 2 = slightly important, 3 = important, 4 = somewhat important, and 5 = very important. Figure 3 shows that the majority of the respondents, 54% (n = 44), indicated that Internet-based distance education was very important to their school’s future success.

Benchmark Perceptions by Position

This section describes the results of the analyses performed on the perceptions of the survey respondents by position. The positions of administrators versus teachers were analyzed on the following benchmark perceptions: institutional support, course development, teaching/learning, course structure, student support, faculty support, and
evaluation and assessment. This section will also describe the identification of an additional position of administrator/teacher and the results of the analyses performed using this added position.

**Administrator Versus Teacher Perceptions**

In order to determine whether differences were present in the responses to the benchmarks by position, tests were conducted to compare the scores of administrators and teachers. Values were assigned to participant responses on a scale with strongly disagree (SD) = 1, disagree (D) = 2, neutral (N) = 3, agree (A) = 4, and strongly agree (SA) = 5. If a respondent answered “I don’t know,” a score of 6 was assigned and was given a missing data value so that it would not be added to the scoring on the 5-point
Likert-type scale which accounts for the variability in sample size for teachers and administrators on any given item. The number of “I don’t know” responses ranged from as low as 12 respondents, to a high as 30. The 24 benchmarks are items 1 – 24 on the survey and are divided into seven topical categories: institutional support (ISB), course development (CDB), teaching/learning (TLB), course structure (CSB), student support (SSB), faculty support (FSB), and evaluation and assessment (EAB). The 24 items were re-coded to create seven new variables that reflect the 24 benchmarks in the seven categories listed above.

The respondents were categorized by teacher or administrator based upon the request from the institutions for all teachers who taught online and individuals in the specific administrative positions of president, vice-president of academics, finance, and enrollment; and directors of distance education and information technology. Each institution’s ADEC representative was also requested as an administrative category; however, every ADEC representative who answered the survey was also in one of the other administrative categories. The list submitted by each institution identified the respondents by their administrative position or as teacher.

**Perceptions on the institutional support benchmarks.** Items 1–3 correspond to the institutional support benchmarks whose scores on these three items were added together to create a new variable “ISB” whose scores could range from as low as 3 (a respondent who strongly disagrees on all three items) to a high of 15 (someone who strongly agrees on all three items). A $t$ test was used in order to see whether teachers, and administrators’ perceptions differ on the institutional support benchmarks. The results indicated that the mean for the 28 administrators was 12.43, with a standard
deviation of 2.35; for the 41 teachers the mean score was 12.27 with a standard deviation of 2.78. Results of the $t$ test ($df = 67$) showed a $t$ value of .25, $p = .92$, indicating that there is not a statistically significant difference between teachers and administrators in regard to scores on the institutional support benchmarks.

**Perceptions on the course development benchmarks.** In order to create the variable “CDB” representing the course development benchmarks, the scores for items 4-6 were added together with a score ranging from a low of 3 (strongly disagree) to a high of 15 (strongly agree). A $t$ test was used to compare the scores of teachers and administrators on the variable “CDB.” The mean for the 29 administrators sampled was 11.24 with a standard deviation of 3.28; for the 44 teachers the mean score was 11.57, with a standard deviation of 3.02. The $t$ test revealed a $t (71) = -.44$, $p = .32$. This indicates that there is not a statistically significant difference between teachers and administrators in regard to scores on “CDB.”

**Perceptions on the teaching/learning benchmarks.** Adding the scores on items 7-9, which corresponded to the teaching/learning benchmarks, produced the variable “TLB.” The scores range as low as 3 (strongly disagree), to a high of 15 (strongly agree). To learn whether there was a difference in how teachers and administrators scored on the teaching/learning benchmarks, a $t$ test was run to compare their scores on the variable “TLB.” The mean score for the 23 administrators was 12.43 with a standard deviation of 2.48; while the 43 teachers’ mean score was 12.60 with a standard deviation of 2.27. The $t$ test ($df = 64$) results showed a $t$-value of -.28, $p = .95$, indicating that a statistically
significant difference in scores does not exist between teachers and administrators on “TLB,” the teaching/learning benchmarks.

**Perceptions on the course structure benchmarks.** Items 10 - 13 correspond to the variable “CSB” (course structure benchmarks) whose scores on these three items were added together to create this new variable. Scores ranged from as low as 4, indicating that the respondent strongly disagrees, to a high score of 20, indicating that they strongly agree. The mean score for the 20 administrators was 16.30 with a standard deviation of 3.34, while the 39 teachers’ mean score was virtually the same at 16.31 and a standard deviation of 3.06. A *t* test was used to compare the scores of teachers and administrators on the variable “CSB.” The test results reveal a *t* (57) = -01, *p* = .84, pointing out that a statistically significant difference does not exist.

**Perceptions on the student support benchmarks.** The variable “SSB” relates to the student support benchmarks found in items 14-17. These combined scores range from as low as 4 (strongly disagree) to a high of 20 (strongly agree). The mean score for administrators (*n* = 20) was 14.55 with a standard deviation of 4.22; teachers (*n* = 27) had a mean score of 15.44 with a standard deviation of 3.66. It was noted that a high number of respondents (*n* = 30) selected the “I don’t know” option that accounts for the drop in sample size for teachers and administrators. In order to reveal whether there was a difference in how teachers and administrators scored on the student support benchmarks, a *t* test was performed using variable “SSB.” The results of the *t* test (*df* = 45) showed a *t* value of -.78, *p* = .75. The results of the *t* test do not support the existence of a significant
difference between the perceptions of teachers and administrators on “SSB” (student support benchmarks).

Perceptions on the faculty support benchmarks. The combined scores of items 18-21 formed the variable “FSB” (faculty support benchmarks). The scoring for this variable ranges from as low as 4 (a respondent who strongly disagrees), to a high of 20 (a respondent who strongly agrees). To demonstrate whether there was a positional (teacher/administrator) difference in how respondents answered the faculty support benchmarks (FSB), a *t* test was performed to compare the average scores of teachers and administrators. The administrators’ group contained 26 respondents with a mean score of 13.92 and a standard deviation of 5.15. The 39 teachers had a mean score of 13.56 with a standard deviation of 4.50. The *t* test (*df* = 63) results showed a *t* value of .30, *p* = .31. The *t* test results indicate that there is not a statistically significant difference between teachers and administrators on “FSB.”

Perceptions on the evaluation and assessment benchmarks. The evaluation and assessment benchmarks are contained in items 22–24 which correspond to the variable “EAB” whose scores added together range from as low as 3 (strongly disagree), to a high of 15 (strongly agree). A *t* test was used to compare the scores of teachers and administrators on the “EAB” variable. The mean for the 23 administrators was 10.26 with a standard deviation of 3.60, while the 27 teachers had a mean score of 10.48 with a standard deviation of 3.64. It was noted that a high number of respondents (*n* = 29) selected the “I don’t know” option which accounts for the drop in sample size for teachers and administrators. The *t* test revealed a *t* (48) = -.22, *p* = .72, indicating that a
A statistically significant difference between teachers' and administrators' scores in this variable does not exist.

**Administrator, Teacher, Versus Administrator/Teacher Perceptions**

In reviewing the data, it was discovered that some administrators had online teaching experience and some teachers had administrative responsibilities such as dean or chairperson of a department. In order to identify this hybrid group of administrators/teachers, a new variable (Admin/Teacher) was created based on responses to items 26 and 32. Item 26 indicated that they currently held at least one of the following administrative positions: president, vice-president, director, dean/chairperson, or "other," and item 32 indicated whether the respondent had taught an online course. In order to be included in the variable "Admin/Teacher" the respondent would have indicated that they held an administrative position (item 26) and had taught an online class (item 32).

Since no statistically significant differences were found between the scores of teachers and administrators on the IHEP benchmarks, an analysis was done to determine if a difference would be discovered when accounting for the additional group of "Admin/Teacher." The variable of "Position 3" was created by first identifying the administrators/teachers, after which the remaining sample kept their original designation as either a teacher or administrator. A one-way analysis of variance was then performed in order to see whether benchmark scores were affected by position when arranged into three categories of teacher, administrator, and administrator/teacher.
The results of the ANOVA can be seen in Tables 8 and 9. Table 8 gives the means and standard deviations on the variables “ISB,” “CDS,” “TLB,” “CSB,” “SSB,” “FSB,” and “EAB”. Table 9 shows that, like the t test on the benchmarks by position in two categories (teacher and administrator), the ANOVA performed on these scores also did not indicate a statistically significant difference on the benchmarks by position when viewed from the three categories of teacher, administrator, teacher/administrator.

Role Identification by Position

The purpose of this section is to describe the crosstabulations performed on role identification by position. The roles of visioning, strategic planning, and policy-making are first displayed by the positions of administrator versus teacher followed by the crosstabulations of the three positions of administrator, teacher, versus, administrator/teacher.

Administrator Versus Teacher Perceptions

Crosstabulations were performed in order to understand whether there were differences between teachers and administrators in role identification. Item 35 asked participants to check whether they identify with multiple roles including visioning, strategic planning, and policy-making with regard to distance education. Of the 32 administrators, 69% identified themselves in the visioning role, while only 28% of the 50 teachers identified the role of visioning (see Table 10). In the role of strategic planning (see Table 11), 59% of administrators (n = 32) identified this role, whereas 22% of teachers (n = 50) identified the role of strategic planning. Table 12 shows that 63% of the
Table 8

*Descriptive Statistic for the Analysis of Variance on Benchmark Responses by Position in Three Categories*

<table>
<thead>
<tr>
<th>Benchmarks</th>
<th>Position</th>
<th>N</th>
<th>M</th>
<th>SD</th>
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</thead>
<tbody>
<tr>
<td>ISB</td>
<td>Administrator</td>
<td>18</td>
<td>12.28</td>
<td>2.59</td>
</tr>
<tr>
<td></td>
<td>Teacher</td>
<td>33</td>
<td>12.30</td>
<td>2.99</td>
</tr>
<tr>
<td>Support</td>
<td>Admin/Teacher</td>
<td>18</td>
<td>12.44</td>
<td>1.85</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>69</td>
<td>12.33</td>
<td>2.60</td>
</tr>
<tr>
<td>CDB</td>
<td>Administrator</td>
<td>18</td>
<td>11.61</td>
<td>3.68</td>
</tr>
<tr>
<td></td>
<td>Teacher</td>
<td>35</td>
<td>11.66</td>
<td>3.12</td>
</tr>
<tr>
<td>Development</td>
<td>Admin/Teacher</td>
<td>20</td>
<td>10.90</td>
<td>2.55</td>
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<td></td>
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<td>73</td>
<td>11.44</td>
<td>3.10</td>
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<td>TLB</td>
<td>Administrator</td>
<td>13</td>
<td>12.00</td>
<td>2.94</td>
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<td></td>
<td>Teacher</td>
<td>36</td>
<td>12.67</td>
<td>2.41</td>
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<td>Learning</td>
<td>Admin/Teacher</td>
<td>17</td>
<td>12.71</td>
<td>1.57</td>
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<td></td>
<td>Total</td>
<td>66</td>
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<td>Administrator</td>
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<td>15.83</td>
<td>3.79</td>
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<td></td>
<td>Teacher</td>
<td>30</td>
<td>16.57</td>
<td>3.15</td>
</tr>
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<td>Structure</td>
<td>Admin/Teacher</td>
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<td>16.18</td>
<td>2.72</td>
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<td></td>
<td>Total</td>
<td>59</td>
<td>16.31</td>
<td>3.13</td>
</tr>
<tr>
<td>SSB</td>
<td>Administrator</td>
<td>9</td>
<td>13.11</td>
<td>5.18</td>
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<td></td>
<td>Teacher</td>
<td>21</td>
<td>15.43</td>
<td>4.02</td>
</tr>
<tr>
<td>Support</td>
<td>Admin/Teacher</td>
<td>17</td>
<td>15.65</td>
<td>2.69</td>
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<tr>
<td></td>
<td>Total</td>
<td>47</td>
<td>15.06</td>
<td>3.89</td>
</tr>
<tr>
<td>FSB</td>
<td>Administrator</td>
<td>15</td>
<td>14.73</td>
<td>4.88</td>
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<td></td>
<td>Teacher</td>
<td>32</td>
<td>13.91</td>
<td>4.65</td>
</tr>
<tr>
<td>Support</td>
<td>Admin/Teacher</td>
<td>18</td>
<td>12.50</td>
<td>4.78</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>65</td>
<td>13.71</td>
<td>4.74</td>
</tr>
<tr>
<td>EAB</td>
<td>Administrator</td>
<td>12</td>
<td>10.08</td>
<td>4.10</td>
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<tr>
<td></td>
<td>Teacher</td>
<td>21</td>
<td>10.57</td>
<td>3.79</td>
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<td>Assessment</td>
<td>Admin/Teacher</td>
<td>17</td>
<td>10.35</td>
<td>3.12</td>
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<td></td>
<td>Total</td>
<td>50</td>
<td>10.38</td>
<td>3.59</td>
</tr>
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</table>

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Table 9

*Analysis of Variance on Benchmark Responses by Position in Three Categories*

<table>
<thead>
<tr>
<th>Benchmarks</th>
<th>SS</th>
<th>df</th>
<th>M</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
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<td>ISB</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Institutional Support</td>
<td>.31</td>
<td>2</td>
<td>.15</td>
<td>.02</td>
<td>.98</td>
</tr>
<tr>
<td>ISB Between Groups</td>
<td>465.03</td>
<td>66</td>
<td>6.96</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ISB Within Groups</td>
<td>459.33</td>
<td>68</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CDB</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Course Development</td>
<td>685.96</td>
<td>70</td>
<td>9.80</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CDB Between Groups</td>
<td>693.97</td>
<td>72</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CDB Within Groups</td>
<td>685.96</td>
<td>70</td>
<td>9.80</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TLB</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teaching/Learning</td>
<td>347.53</td>
<td>63</td>
<td>5.52</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TLB Between Groups</td>
<td>352.36</td>
<td>65</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TLB Within Groups</td>
<td>347.53</td>
<td>63</td>
<td>5.52</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CSB</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Course Structure</td>
<td>563.50</td>
<td>56</td>
<td>10.06</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CSB Between Groups</td>
<td>568.51</td>
<td>58</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CSB Within Groups</td>
<td>563.50</td>
<td>56</td>
<td>10.06</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSB</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student Support</td>
<td>653.91</td>
<td>44</td>
<td>14.86</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSB Between Groups</td>
<td>696.81</td>
<td>46</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSB Within Groups</td>
<td>653.91</td>
<td>44</td>
<td>14.86</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FSB</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faculty Support</td>
<td>1392.15</td>
<td>62</td>
<td>22.45</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FSB Between Groups</td>
<td>1435.45</td>
<td>64</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FSB Within Groups</td>
<td>1392.15</td>
<td>62</td>
<td>22.45</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EAB</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaluation &amp; Assessment</td>
<td>627.94</td>
<td>47</td>
<td>13.36</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EAB Between Groups</td>
<td>629.78</td>
<td>49</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EAB Within Groups</td>
<td>627.94</td>
<td>47</td>
<td>13.36</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 10

*Crosstabulation for the Role Identification of Visioning by Position in Two Categories*

<table>
<thead>
<tr>
<th>Role-Visioning</th>
<th>No</th>
<th>Yes</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Position-2 Categories</td>
<td>Administrator</td>
<td>10 (31%)</td>
<td>22 (69%)</td>
</tr>
<tr>
<td>Teacher</td>
<td>36 (72%)</td>
<td>14 (28%)</td>
<td>50 (100%)</td>
</tr>
<tr>
<td>Total</td>
<td>46 (56%)</td>
<td>36 (44%)</td>
<td>82 (100%)</td>
</tr>
</tbody>
</table>

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Table 11

*Crosstabulation for the Role Identification of Strategic Planning by Position in Two Categories*

<table>
<thead>
<tr>
<th>Roles-Strategic Planning</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Position-2 Categories</td>
<td></td>
</tr>
<tr>
<td>Administrator</td>
<td>13 (41%)</td>
</tr>
<tr>
<td>Teacher</td>
<td>39 (78%)</td>
</tr>
<tr>
<td>Total</td>
<td>52 (63%)</td>
</tr>
</tbody>
</table>

Table 12

*Crosstabulation for the Role Identification of Policy-Making by Position in Two Categories*

<table>
<thead>
<tr>
<th>Roles-Policy-Making</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Position-2 Categories</td>
<td></td>
</tr>
<tr>
<td>Administrator</td>
<td>12 (37%)</td>
</tr>
<tr>
<td>Teacher</td>
<td>38 (76%)</td>
</tr>
<tr>
<td>Total</td>
<td>50 (61%)</td>
</tr>
</tbody>
</table>

32 administrators identified themselves in the role of policy-making; whereas 24% of the 50 teachers identified this role.

**Administrator, Teacher, Versus Administrator/Teacher Perceptions**

An additional set of crosstabulations was performed in order to understand whether there were differences in role identification by position when the additional category of administrator/teacher was taken into account. Item 35 asked participants to check whether they identify with multiple roles including visioning, strategic planning, and policy-making with regard to distance education. Of the 21 administrators, 57% identified themselves in the visioning role, while 24% of the 41 teachers identified the
role of visioning, while 70% of the 20 administrators/teachers identified with the role of visioning (see Table 13). In the role of strategic planning (see Table 14), 57% of administrators \((n = 21)\) identified this role, with 15% of teachers \((n = 41)\) identifying the role of strategic planning, and 60% of the administrators/teachers \((n = 20)\) identified this role. Table 15 shows that 52% of the 21 administrators identified themselves in the role of policy-making, while 15% of the 41 teachers identified this role, and 75% of the administrators/teachers identified with the policy-making role. In all three roles

Table 13

*Crosstabulation for the Role Identification of Visioning by Position in Three Categories*

<table>
<thead>
<tr>
<th>Position-3 Categories</th>
<th>Roles-Visioning</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Administrator</td>
<td>9 (43%)</td>
<td>12 (57%)</td>
</tr>
<tr>
<td>Teacher</td>
<td>31 (76%)</td>
<td>10 (24%)</td>
</tr>
<tr>
<td>Admin/Teacher</td>
<td>6 (30%)</td>
<td>14 (70%)</td>
</tr>
<tr>
<td>Total</td>
<td>46 (56%)</td>
<td>36 (44%)</td>
</tr>
</tbody>
</table>

Table 14

*Crosstabulation for the Role Identification Strategic Planning by Position in Three Categories*

<table>
<thead>
<tr>
<th>Position-3 Categories</th>
<th>Roles-Strategic Planning</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Administrator</td>
<td>9 (43%)</td>
<td>12 (57%)</td>
</tr>
<tr>
<td>Teacher</td>
<td>35 (85%)</td>
<td>6 (15%)</td>
</tr>
<tr>
<td>Admin/Teacher</td>
<td>8 (40%)</td>
<td>12 (60%)</td>
</tr>
<tr>
<td>Total</td>
<td>52 (63%)</td>
<td>30 (37%)</td>
</tr>
</tbody>
</table>

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Table 15

*Crosstabulation for the Role Identification of Policy-Making by Position in Three Categories*

<table>
<thead>
<tr>
<th>Position-3 Categories</th>
<th>Administrator</th>
<th>Teacher</th>
<th>Admin/Teacher</th>
<th>Roles-Policy-Making</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Administrator</td>
<td>10 (48%)</td>
<td>11 (52%)</td>
<td>21 (100%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teacher</td>
<td>35 (85%)</td>
<td>6 (15%)</td>
<td>41 (100%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Admin/Teacher</td>
<td>5 (25%)</td>
<td>15 (75%)</td>
<td>20 (100%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>50 (63%)</td>
<td>32 (39%)</td>
<td>82 (100%)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(visioning, strategic planning, and policy-making), a higher percentage of administrators/teachers identified these roles, followed by administrators, and teachers identified these roles with the lowest percentages in each role. Reasons why this may be the case are addressed in chapter 5.

Benchmark Perceptions by Number of Years in Higher Education and Position

The survey (see Appendix A) included an item asking the participants to indicate the number of years they have spent working in higher education. Item 28 asked participants to indicate the number of years spent working in higher education with values of 1 = 1-5 years, 2 = 6-10 years, 3 = 11-15 years, 4 = 16-20 years, 5 = 21-30 years, and 6 = 30+ years. In order to create the variable “years in HE,” item 28 was recoded to three levels so that 1 = 1-10 years, 2 = 11-20 years, and 3 = 21+ years.

In order to test whether a difference existed between the scores of respondents on the benchmarks by the three levels of experience and two positions, scores on the benchmark variables “ISB,” “CDB,” “TLB,” “CSB,” “SSB,” “FSB,” and “EAB” were

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compared by position (teacher or administrator) and years of experience (variable “years in HE”). A 3 x 2 ANOVA was performed using the seven benchmarks as the dependent variables and the years of experience of administrators and teachers as one independent variable. Of the seven 3 x 2 ANOVA tests run, only one, course development (CDB) benchmarks, was found to be statistically significant.

Table 16 shows the mean score of 9.86 for the seven administrators with 1-10 years of experience in higher education (SD = 2.73). The mean score for the 13 administrators with 11-20 years in higher education is 10.77 (SD = 3.59). Administrators (n = 7) with more than 21 years of experience in higher education had a mean score of 12.71, with a standard deviation of 2.98. Teachers (n = 16) with 1-10 years of experience had a mean score of 13.13, SD = 1.89. The mean score for teachers (n = 20) with 11-20 years of experience is 11.10, with a standard deviation of 2.92. Teachers with more than 21 years of experience in higher education (n = 8) had a mean score of 9.63 with a standard deviation of 3.81.

The 3 x 2 ANOVA demonstrated (see Table 17) that these scores resulted in an $F$ ($df=2$) value of 4.88, $p = .01$, demonstrating a between-subject effect that was statistically significant. The mean scores for teachers and administrators with 1-10, 11-20, and more than 21 years of experience in higher education have been graphed in Figure 4. The lowest possible score for “CDB” was 3, indicating that the respondent strongly disagreed and a high of 15 indicating that they strongly agreed that the benchmarks for quality course development were demonstrated in their institutions. Teachers with 1-10 years in higher education and administrators with more that 21 years of experience had the highest mean scores, indicating that they more strongly agreed that
the benchmarks for quality were present in their institutions, while the lowest mean scores were the teachers with more than 21 years in higher education, and administrators with 1-10 years of experience. Reasons for this finding are discussed in Chapter Five of this study.

Table 16

Descriptive Statistics for the 3 x 2 ANOVA for Course Development Benchmarks (CDB), Years in Higher Education (HE), and Position in Two Categories

<table>
<thead>
<tr>
<th>Position-2 Categories</th>
<th>Years in HE</th>
<th>M</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrator</td>
<td>1-10 Years</td>
<td>9.86</td>
<td>2.73</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>11-20 Years</td>
<td>10.77</td>
<td>3.59</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>21+ Years</td>
<td>12.71</td>
<td>2.98</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>11.04</td>
<td>3.30</td>
<td>27</td>
</tr>
<tr>
<td>Teacher</td>
<td>1-10 Years</td>
<td>13.13</td>
<td>1.89</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>11-20 Years</td>
<td>11.10</td>
<td>2.92</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>21+ Years</td>
<td>9.63</td>
<td>3.81</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>11.57</td>
<td>3.01</td>
<td>44</td>
</tr>
<tr>
<td>Total</td>
<td>1-10 Years</td>
<td>12.13</td>
<td>2.62</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>11-20 Years</td>
<td>10.97</td>
<td>3.15</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td>21+ Years</td>
<td>11.07</td>
<td>3.69</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>11.37</td>
<td>3.11</td>
<td>71</td>
</tr>
</tbody>
</table>
Table 17

*The 3 x 2 ANOVA for Course Development Benchmarks (CDB), Years in Higher Education (HE) and Position in Two Categories*

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III SS</th>
<th>df</th>
<th>M</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected Model</td>
<td>108.46(a)</td>
<td>5</td>
<td>21.69</td>
<td>2.47</td>
<td>.04</td>
</tr>
<tr>
<td>Intercept</td>
<td>7522.59</td>
<td>1</td>
<td>7522.59</td>
<td>857.81</td>
<td>.00</td>
</tr>
<tr>
<td>Position-2 Categories</td>
<td>.43</td>
<td>1</td>
<td>.43</td>
<td>.05</td>
<td>.83</td>
</tr>
<tr>
<td>Years in HE</td>
<td>3.73</td>
<td>2</td>
<td>1.87</td>
<td>.21</td>
<td>.81</td>
</tr>
<tr>
<td>Position-2 Categories * Years in HE</td>
<td>85.53</td>
<td>2</td>
<td>42.77</td>
<td>4.88</td>
<td>.01</td>
</tr>
<tr>
<td>Error</td>
<td>570.09</td>
<td>65</td>
<td>8.77</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>9851.00</td>
<td>71</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>678.48</td>
<td>70</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

![Figure 4. Tests of between-subject effect for course development benchmarks (CDB), years in higher education (HE), and position in two categories.](Image)

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Teaching Compensation and Moonlighting

A crosstabulation (see Table 18) was performed in order to understand the relationship between teaching compensation and the respondent's consideration to moonlight as an online teacher for another institution. Item 33 asked participants who have taught online whether they receive additional pay for online teaching. Item 34 asked if they had considered teaching online courses for an institution other than their current employer. Of the 58 respondents sampled, 64% ($n = 37$) indicated that they received additional compensation for their online teaching and 36% ($n = 21$) indicated that they were not receiving additional pay.

Of the 37 respondents who were compensated for their online teaching, 51% ($n = 19$) had not taught for another institution nor indicated that they had considered moonlighting, while 8% ($n = 3$) had taught for another institution, and 41% ($n = 15$) had considered moonlighting for another institution. Of the 21 respondents who were not compensated additionally for their online teaching, 38% ($n = 8$) had not taught for another institution nor indicated that they had considered moonlighting, while 5% ($n = 1$) had taught for another institution, and 57% ($n = 12$) had considered moonlighting for another institution.

The majority (62%) of respondents who were not compensated additionally for their teaching either had taught for another school or where considering teaching for another institution.
Table 18

*Crosstabulation for Compensation and Moonlighting*

<table>
<thead>
<tr>
<th>Compensation</th>
<th>Moonlighting</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Compensation</td>
<td>Yes</td>
<td>19 (51.0%)</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>8 (38.0%)</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>27 (46.5%)</td>
</tr>
</tbody>
</table>

Perceptions of the Importance of Internet-based Distance Education by Position

This section reports the perceptions of the importance of Internet-based distance education by position. First the positions of administrator versus teacher are presented followed by the positions of administrator, teacher, versus administrator/teacher.

**Administrator Versus Teacher Perceptions**

The survey participants were asked to rank the importance of Internet-based distance education to the future success of their institution, item 38 (see Appendix A). The values assigned to the responses to this question were 1 = not important, 2 = slightly important, 3 = important, 4 = somewhat important, and 5 = very important. In order to see whether teachers and administrators respond differently in their opinion about the importance of Internet-based distance education, a *t* test was run to compare their scores. The 32 administrators had a mean score of 3.97, with a standard deviation of 1.15, and the 50 teachers had a mean score of 4.38, with a standard deviation of .83 (see Table 19).

Table 20 shows that the *t* test revealed *t* (*df* = 80) = -1.88, *p* = .02. Due to this outcome (*p* = .02) the Levene's test calculated the findings with the assumption that equal
variances were not assumed, revealing $t \ (df = 51.52) = -1.75$; $p \ (2$-tailed) was .09. This indicates that there is not a statistically significant difference between teachers and administrators in their scores on the importance of Internet-based distance education.

Table 19

$t$ Test Group Statistics for the Importance of Internet-based Distance Education (IBDE) by Position in Two Categories

<table>
<thead>
<tr>
<th>Position-2 Categories</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>SE</th>
<th>Means</th>
</tr>
</thead>
<tbody>
<tr>
<td>Importance of IBDE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administrator</td>
<td>32</td>
<td>3.97</td>
<td>1.15</td>
<td>.20</td>
<td>.20</td>
</tr>
<tr>
<td>Teacher</td>
<td>50</td>
<td>4.38</td>
<td>.83</td>
<td>.12</td>
<td></td>
</tr>
</tbody>
</table>

Table 20

$t$ Test for the Importance of Internet-based Distance Education by Position in Two Categories

<table>
<thead>
<tr>
<th>Levene's Test for Equality of Variances</th>
<th>$t$ test for Equality of Means</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sig.</td>
<td>$t$</td>
</tr>
<tr>
<td>Importance of IBDE</td>
<td></td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>5.63</td>
</tr>
<tr>
<td>Equal variances not assumed</td>
<td>-1.75</td>
</tr>
</tbody>
</table>
Administrator, Teacher, Versus Administrator/Teacher Perceptions

A one-way analysis of variance was then performed to test the same hypothesis by position in three categories (teacher, administrator, admin/teacher). Table 21 shows that the mean scores for administrators ($n = 21$) is $3.86, SD = 1.20$, followed by teachers ($n = 41$) with a mean score of $4.46, SD = .79$, and administrators/teachers ($n = 20$) with $SD = 1.02$. Table 22 shows that the ANOVA performed on these scores resulted in an $F$ ($df = 2$) value of $2.98, p = .06$, indicating the presence of a trend among these three groups (see Table 21), with teachers reporting Internet-based education as more important than administrator/teachers, and administrators reporting the lowest mean scores for importance.

Table 21

*Descriptives for the Analysis of Variance on the Importance of Internet-based Distance Education by Position in Three Categories*

<table>
<thead>
<tr>
<th>Position</th>
<th>$N$</th>
<th>$M$</th>
<th>$SD$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrator</td>
<td>21</td>
<td>3.86</td>
<td>1.20</td>
</tr>
<tr>
<td>Teacher</td>
<td>41</td>
<td>4.46</td>
<td>.79</td>
</tr>
<tr>
<td>Admin/Teacher</td>
<td>20</td>
<td>4.10</td>
<td>1.02</td>
</tr>
<tr>
<td>Total</td>
<td>82</td>
<td>4.22</td>
<td>.98</td>
</tr>
</tbody>
</table>

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Table 22

Analysis of Variance for the Importance of Internet-based Distance Education by Position in Three Categories

<table>
<thead>
<tr>
<th></th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>5.48</td>
<td>2</td>
<td>2.74</td>
<td>2.98</td>
<td>.06</td>
</tr>
<tr>
<td>Within Groups</td>
<td>72.57</td>
<td>79</td>
<td>.92</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>78.05</td>
<td>81</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Benchmark Perceptions by Gender

Although this study does not have gender as a specific focus area, unexpected findings emerged regarding differences between the perceptions of the men and women in the study. In order to discover whether there was a gender difference in how research participants responded to the benchmarks (variables: ISB, CDB, TLB, CSB, SSB, FSB, and EAB), a $t$ test was performed to compare the average mean score between men and women (see Table 23). Higher mean scores indicate that they more strongly agree, while lower mean scores indicate that they more strongly disagree.

Perceptions on the Course Development Benchmarks

The results shown in Table 23 indicate that the 40 men had a mean “CDB” score of 10.23 ($SD = 2.90$), and the 31 women had a mean score of 12.84 ($SD = 2.78$). Results of the $t$ test ($df = 69$) showed a $t$ value of $-3.84$, $p = .00$ (2-tailed), indicating that there is a statistically significant difference between men and women on “CDB” the course development benchmarks (see Table 23). The means show that women more strongly agree on the course development benchmarks.
Perceptions of the Teaching/Learning Benchmarks
A $t$ test was used to compare the scores of men and women on the variable “TLB” (see Table 23). The mean for the 37 men sampled was 11.95 with a standard deviation of 2.38; for the 29 women, the mean score was 13.31, with a standard deviation of 2.05. The $t$ test revealed a $t (df = 64) = -2.45, p = .02$ (2-tailed). This indicates that there is a statistically significant difference between men and women in regard to scores on variable “TLB” the teaching/learning benchmarks. The women’s mean score indicates that they agree more strongly with the teaching/learning benchmark questions.

Perceptions on the Course Structure Benchmarks

On “CSB” the mean score for the 34 men was 15.56 with a standard deviation of 3.59, while the 25 women’s mean score was 17.32 and a standard deviation of 2.04 (see Table 23). A $t$ test was used to compare the scores of men and women on the variable “CSB”. The test results seen in Table 24 reveal a $t (54) = -2.39, p = .02$ (2-tailed), showing that a statistically significant difference exists. Female scores were higher on the course structure benchmarks (variable “CSB) revealing that they more strongly agree than men.

Perceptions on the Student Support Benchmarks

The “SSB” mean score for men ($n = 28$) was 14.00 with a standard deviation of 4.41; women ($n = 19$) had a mean score of 16.63 with a standard deviation of 2.27. It was noted that a high number of respondents ($n = 30$) selected the “I don’t know” option
Table 23

t Test for Benchmark Responses by Gender

<table>
<thead>
<tr>
<th>Benchmarks</th>
<th>Gender</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institutional Support (ISB)</td>
<td>Male</td>
<td>44</td>
<td>12.14</td>
<td>2.53</td>
<td>-.66</td>
<td>64.00</td>
<td>.51</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>22</td>
<td>12.59</td>
<td>2.87</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Course Development (CDB)</td>
<td>Male</td>
<td>40</td>
<td>10.23</td>
<td>2.90</td>
<td>-3.84</td>
<td>69.00</td>
<td>.00**</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>31</td>
<td>12.84</td>
<td>2.78</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teaching/ Learning (TLB)</td>
<td>Male</td>
<td>37</td>
<td>11.95</td>
<td>2.38</td>
<td>-2.45</td>
<td>64.00</td>
<td>.02*</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>29</td>
<td>13.31</td>
<td>2.05</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Course Structure (CSB)</td>
<td>Male</td>
<td>34</td>
<td>15.56</td>
<td>3.59</td>
<td>-2.39++</td>
<td>54.00++</td>
<td>.02*</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>25</td>
<td>17.32</td>
<td>2.04</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student Support (SSB)</td>
<td>Male</td>
<td>28</td>
<td>14.00</td>
<td>4.41</td>
<td>-2.68++</td>
<td>42.44++</td>
<td>.01*</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>19</td>
<td>16.63</td>
<td>2.27</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faculty Support (FSB)</td>
<td>Male</td>
<td>38</td>
<td>13.11</td>
<td>4.48</td>
<td>-1.22</td>
<td>63.00</td>
<td>.24</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>27</td>
<td>14.56</td>
<td>5.03</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaluation &amp; Assessment (EAB)</td>
<td>Male</td>
<td>32</td>
<td>9.31</td>
<td>3.49</td>
<td>-3.03</td>
<td>48.00</td>
<td>.00**</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>18</td>
<td>12.18</td>
<td>2.99</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .05. **p < .01. ++ Levene’s test for homogeneity of variance using values for unequal variances assumed.
which accounts for the drop in sample size for men and women. In order to reveal whether there was a difference in how men and women scored on the student support benchmarks, a t test was performed using the variable “SSB.” The results of the t test \((df = 42.44)\) showed a t value of \(-.2.68, p = .02\) (2-tailed). The results of the t test seen in Table 23 support the existence of a significant difference between the perceptions of men and women on “SSB” (student support benchmarks).

**Perceptions on the Evaluation and Assessment Benchmarks**

On the evaluation and assessment benchmarks (variable “EAB”) the mean for the 32 men was 9.31, with a standard deviation of 3.49, while the 18 women had a mean score of 12.28, with a standard deviation of 2.99 (see Table 23). It was noted that a high number of respondents \((n = 29)\) selected the “I don’t know” option which accounts for the drop in sample size. The t test revealed a t \((48) = -.3.03, p = .00\), indicating that there is a statistically significant difference between the scores for men and women on the evaluation and assessment benchmarks (see Table 23).

**Qualitative Results**

This section discusses the analysis of the qualitative data obtained from interviews done with Internet-based distance education experts from nine different Adventist colleges/universities and the qualitative data gleaned from the additional comments section of the online survey. Ten meta-themes emerged as a result of the analysis. The first seven meta-themes are discussed as they relate to the broader categories of institutional-controlled benchmarks and faculty-controlled benchmarks (see
definitions in chapter 2) and the themes from which they were developed. The remaining three meta-themes of prevailing attitudes of distance education, system collaboration, and the qualities of an expert are discussed in relation to the themes from which they were developed. An exploratory thematic analysis of the data has been included as well as various tables that describe the endorsement sizes of specific themes.

Exploratory Thematic Analyses

The qualitative data were analyzed using the constant comparative method (Lincoln & Guba, 1985) that led to the development of 17 broad emerging themes that were further reduced to 10 meta-themes. The IHEP benchmarks (Phipps & Merisotis, 2000) served as an a priori context to examine the extent to which the participants were discussing ideas relevant to the benchmarks, but the development of themes was not limited to the benchmarks. Within these 17 themes, those that emerged relating to the institutional-controlled benchmarks included: evaluation and assessment, faculty training, course management issues, student access, student services, financial challenges, and vision/mission/strategic planning. Consistent with the literature on the IHEP benchmarks (Phipps & Merisotis, 2000) these nine themes were clustered into the four meta-themes of faculty support, institutional support, evaluation and assessment, and student support. The themes that related to the faculty-controlled benchmarks included: course structure, interactivity and community, teaching theories and methods, quality-control guidelines, and curriculum development and design. These five themes were clustered into the three meta-themes of course structure, teaching and learning, and course development.

Additional meta-themes that emerged were prevailing attitudes, system collaboration, and qualities of an expert. The meta-theme of prevailing attitudes was
constructed from the broader themes of brick and mortar mentality and brick and click mentality. The systems collaboration meta-theme was constructed from the two themes of barriers to collaboration and opportunities for collaboration.

The qualitative data were transformed by quantizing (Tashakkori & Teddlie, 1998) the data through the use of inter-respondent and intra-respondent matrices (Onwuegbuzie & Teddlie, 2003). This process was used in order to develop descriptive statistics regarding the emphasis and endorsement given to the emerging themes by the research participants. In order to create the intra-respondent matrix (i.e., Unit x Theme) the data were binarized (Onwuegbuzie & Teddlie, 2003) where each idea (unit) was converted to a score of 1 or 0. A score of “1” was given if the unit was represented in one of the 17 broad themes, whereas a score of “0” was given if the unit was not represented within a theme. The inter-respondent matrix (i.e., Participant x Theme) was constructed by assigning the score of “1” to participants who endorsed a given theme and a score of “0” if the participant did not endorse the theme. The quantitizing of the themes made it possible to compute the manifest effect sizes (Onwuegbuzie & Teddlie, 2003) of the data.

As described by Onwuegbuzie and Teddlie (2003) two types of manifest effect size were calculated. The frequency effect size was obtained by computing the frequency of a theme within a sample using the intra-respondent matrix. The intensity effect size was calculated by converting the number of units in each theme to a percentage. The results of the computation of the manifest effect size are illustrated in Table 24.

Additional effect sizes were computed using the inter-respondent matrix to determine the percentage of participants who endorsed each theme. Table 25 represents
the percentage of the participants’ endorsement of the meta-themes. When reviewing Table 25, it is interesting to note that 9 of the 10 meta-themes were endorsed from 55.6% to 100% of the participants. The meta-theme of course structure however was only endorsed by only 22.2% of the participants. Although the meta-theme of qualities of the expert is endorsed by the entire sample, it is important to note that each participant was specifically asked to speculate about why their peers identified them as an expert accounting for the 100% endorsement rate.

When using Tables 24 and 25 in tandem, the weightiness of the themes is demonstrated via effect size. For example, the meta-theme of institutional support accounts for over 20% (see Table 24) of the units and was discussed by all of the

<table>
<thead>
<tr>
<th>Category Number</th>
<th>Meta-themes</th>
<th>Number of themes within each meta-theme</th>
<th>Frequency of Occurrence (Units)</th>
<th>Intensity Effect Sizes (% of total)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Institutional Support</td>
<td>2</td>
<td>73</td>
<td>20.2</td>
</tr>
<tr>
<td>2</td>
<td>Faculty Support</td>
<td>2</td>
<td>39</td>
<td>10.8</td>
</tr>
<tr>
<td>3</td>
<td>Student Support</td>
<td>2</td>
<td>18</td>
<td>5.0</td>
</tr>
<tr>
<td>4</td>
<td>Evaluation &amp; Assessment</td>
<td>1</td>
<td>5</td>
<td>1.4</td>
</tr>
<tr>
<td>5</td>
<td>Teaching/Learning</td>
<td>2</td>
<td>59</td>
<td>16.3</td>
</tr>
<tr>
<td>6</td>
<td>Course Development</td>
<td>2</td>
<td>22</td>
<td>6.1</td>
</tr>
<tr>
<td>7</td>
<td>Course Structure</td>
<td>1</td>
<td>6</td>
<td>1.7</td>
</tr>
<tr>
<td>8</td>
<td>Prevailing Attitudes of DE</td>
<td>1</td>
<td>34</td>
<td>9.4</td>
</tr>
<tr>
<td>9</td>
<td>System Collaboration</td>
<td>2</td>
<td>33</td>
<td>9.1</td>
</tr>
<tr>
<td>10</td>
<td>Qualities of Expert</td>
<td>2</td>
<td>72</td>
<td>19.9</td>
</tr>
<tr>
<td>Total</td>
<td>10 Overall Meta-Themes</td>
<td>17</td>
<td>361</td>
<td>100.0</td>
</tr>
</tbody>
</table>

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Table 25

*Participants Meta-Theme Endorsement*

<table>
<thead>
<tr>
<th>Meta-Themes</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institutional Support</td>
<td>100.0</td>
</tr>
<tr>
<td>Faculty Support</td>
<td>88.9</td>
</tr>
<tr>
<td>Student Support</td>
<td>88.9</td>
</tr>
<tr>
<td>Evaluation &amp; Assessment</td>
<td>55.6</td>
</tr>
<tr>
<td>Teaching/Learning</td>
<td>77.8</td>
</tr>
<tr>
<td>Course Development</td>
<td>88.9</td>
</tr>
<tr>
<td>Course Structure</td>
<td>22.2</td>
</tr>
<tr>
<td>Prevailing Attitudes of DE</td>
<td>100.0</td>
</tr>
<tr>
<td>System Collaboration</td>
<td>66.7</td>
</tr>
<tr>
<td>Qualities of Expert</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Interviewees (see Table 25). Consequently, this meta-theme can be characterized as being talked about a great deal by many participants. Although the meta-theme of evaluation and assessment receives a high endorsement rate of 55.6% (see Table 25) of the sample, this constitutes only 1.4% (see Table 24) of the intensity effect size and might be seen as being discussed a little by a moderate number of participants. The course structure meta-theme is an example of an idea that is discussed very little with an intensity effect size of 1.7% (see Table 24) by very few participants with an endorsement percentage of 22.2% (see Table 25).

Calculating manifest effect size is valuable in this study in order to: (a) leave an audit trail; (b) compare the qualitative data with the quantitative data; and (c) account for and represent small outlying themes in addition to prominent themes. Onwuegbuzie and Teddlie (2003) suggest that quantitizing data for statistical analysis is a means to legitimize and assist with the interpretation of mixed-methods results. Miles and
Huberman (1994) give three reasons to quantify themes: (a) easy identification of themes; (b) the maintenance of analytical integrity; and (c) hypothesis verification.

Institutional-Controlled Benchmarks

The institutional-controlled benchmarks as defined by this study are those benchmarks for quality that are typically beyond the instructor’s control and more under the control of the institution. They include: institutional support, student support, faculty support, and evaluation and assessment (Sparrow, 2002).

In this section, the meta-themes of institutionally-controlled benchmarks will be discussed as they relate to the themes from which they originated. The thematic structure pertaining to the institutional-controlled benchmarks used for this discussion is represented in Figure 5.

Institutional Support

Interestingly, the meta-theme of institutional support is one of only two meta-themes that were endorsed by all those interviewed (see Table 25) and had the highest intensity effect size of 20.2% (see Figure 5). This meta-theme emerged as participants shared their stories about current participation in Internet-based distance education or what they thought were pressing needs for the future of distance education. Participant comments represent two sub-themes—vision, mission & strategic planning, and financial challenges—both of which were endorsed 100% by participants (see Table 26).
Figure 5. Thematic structure pertaining to institutional-controlled benchmarks.
Table 26

*Participant Sub-Theme Endorsement: Institutional Support*

<table>
<thead>
<tr>
<th>Institutional Support Sub-Themes</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vision, Mission, &amp; Strategic Planning</td>
<td>100.0</td>
</tr>
<tr>
<td>Financial Challenges</td>
<td>100.0</td>
</tr>
</tbody>
</table>

**Vision, mission, and strategic planning.** Institutional vision is what drives an institution’s mission and strategic planning. It is the spark that ignites the creativity in any planning effort. Interviewees shared rather vigorously their thoughts about the collective vision of Adventist education in general and visioning for Internet-based distance education in particular. Two individuals were very concerned with the changing demographics and commitments of young Adventists to Adventist education. One teacher discussed this in generational terms:

I know my parent’s generation, the World War II generation, would die for God, Country, and the Seventh-day Adventist church. I can’t say I am like that and I know my brother’s son, a junior in high school, won’t say that. He is already looking at a state university that is close to home, where there are world-class teachers and he won’t have to work extra hours to pay all that tuition.

Another interviewee echoed similar thoughts and advocated for Adventist education to become proactive and start integrating online teaching so we can continue to educate our own members.

One interviewee shared his thoughts about Internet-based distance education as part of an Adventist institutional mission just because the Internet could provide international access to education. He maintained that worldwide access to education is still inequitable because only a portion of the world is able to access the Internet in an affordable way.
The visions shared by interviewees regarding possibilities of Internet-based
distance education in institutions were exciting. Collaborative partnerships, degree and
certificate programs, corporate trainings, and marketing to high-school students were
shared as current realities and/or future potentials for online education in institutions.
One enthusiastic interviewee shared possible online opportunities in the professional
community, from teacher certificate programs to working with the military. He felt that
the challenges ahead in Internet-based distance education are only about lack of vision.
Other markets for online education include marketing to Adventist high schools so that
students would have a whole year, half-year, or semester’s worth of college before
arriving on campus. One participant intimated that institutional vision and need of higher
enrollments might be solved with intentional, well-planned online education. Finally,
one mid-level administrator shared his personal vision for a central organizational
structure that would motivate, coordinate, and evaluate online learning for the campus.

It appears that commitment to Internet-based distance education by many upper
level administrators is still lukewarm. Interviewees discussed this lack of commitment in
the absence of strategic planning for distance education and/or mention of distance
education in institutional mission statements.

One teacher said that even though distance education existed on their campus, it
was in chaos, a clear indication for him that the institution was just not committed to it.
Another interviewee shared his frustration with his institution’s approach in creating
strategic direction for online distance education while in a crisis. He felt that crisis
planning was too late as decisions made are less than optimal. Two upper level
administrators demonstrated their own ambivalence regarding future commitment and
planning for this type of education by indicating that they did not anticipate their campuses moving into distance education any more significantly than what was presently being done.

In addition, a lack of commitment to Internet-based education may be demonstrated by the fact that, when asked, just four of the nine participants said strategic plans targeting technology and/or distance education existed in their institutions. Two of those four plans were for specific departments rather than the entire institution. Only two institutions were able to find and send copies of those plans.

Only one administrator/teacher was able to speak specifically about what was in their technology plan by discussing the definition of distance education on campus and describing several goals and projected outcomes that were important to the institution. He was able to send a copy of the plan via e-mail within minutes of the interview. Additionally, it should be noted that there was one institution out of the nine that references technology in the mission statement, but there was no strategic plan for technology to accompany this mission. Two other participants indicated that their institutions are currently in the process of developing technology/distance education plans.

Strategic planning as it related to academic online program planning and management was also described as lacking or poorly maintained. One educator felt that the biggest problem on their campus was relying too much on the e-learning partner to do their academic course planning and faculty support. Another frustrated teacher shared his experience with the chaos of having an e-learning partner manager change about every 6 to 9 months, which resulted in him training all new managers as well as teachers...
in course development and course management software. Another interviewee felt the problems would be minimized if administration would provide clear guidelines for students and instructors on distance learning offerings. Finally, one enterprising administrator/teacher confessed that he did not mind the lack of structure with regard to distance education on his campus and used it to his advantage. He created several online programs on the fast track rather than jumping through campus political hoops that he felt would have just slowed progress.

One might conclude from the previous comments that distance education is not important to administrators. That is not entirely the case. There are a few administrators in institutions who have been visionary and helpful in advancing distance education. One teacher shared that the president of his institution was the one who initiated funding of a position of distance education at their institution and it was the vice-president of academic administration who initiated and participated in the development of the institutional strategic plan for distance education. A proactive academic dean, who responded to the quantitative survey, disclosed that she had facilitated tools, budgets, training, and the faculty needed to develop the cyber courses on their campus. And yet another interviewee described that her administration’s plan to contract with an e-partner was very helpful—like bringing in a whole other staff. She shared that the e-learning partner with whom she works puts the classes online, markets them, and does all the recruiting making her job of teaching much easier.

A couple of interesting sidelines occurred in the discussion of academic planning as it related to Internet-based distance education. One teacher/administrator shared an
unusual experience with an overseas college that showed flexibility in planning collaborative ventures in online distance education programs.

The [Program affiliation in Asia] isn't discipline specific to the programs here because the training requirements for [discipline] in the U.S. have certain strict requirements that the [college in Asia] did not want to address in the same way. But they wanted to affiliate and so our college has developed a similar program that works for them but is called something different.

Lastly, one interviewee unexpectedly provided a website that provided a model of implementing e-learning that might be helpful to institutions as they plan for distance programs. If you are interested in that website the address is:  

www.books.bookread.com/brainwork.

**Financial challenges.** The challenges of changing demographics and enrollment, the rise in the cost of tuition, faculty/student ratios, faculty remuneration, and downsizing are all issues that affect the financial well-being of institutions. Interviewees touched on all of these briefly, but had the most to say about faculty hiring, remuneration, and loading as it related to Internet-based education.

One interviewee shared that he thought online education made finding faculty easier because you did not have to hire them full-time, rather you can contract with them any place in the world. He felt that Internet-based distance education would broaden the ability to get qualified faculty.

Faculty loading within distance education had several interviewees weighing in with their opinions and concerns. Some were interested in the issue from a compensation standpoint. For instance, one administrator admitted that they were trying to sort out what constitutes a comparable workload if you do not get a stipend to do an online class. Still others viewed faculty loading as a time management problem and suggested that
Internet-based distance education courses cannot be developed with a faculty that is already at a full-time load. A possible solution shared that might impact the loading problem would be that extra time be given in the faculty teaching load for online course creation.

Other institutions are also talking and implementing solutions to the faculty loading problems. One teacher shared that in the past her institution relied heavily upon its full-time faculty to teach the online courses without making on-campus course load adjustments or extra compensation. She revealed that her institution is now in the process of allowing teachers to include online courses as part of their regular load or to teach the online course(s) as a paid extra. Another teacher also described that at his institution they were paid above and beyond their salary for teaching online. It was a contracted wage that was one amount for 10 or more students in a class and a different amount for 25 or more students. One administrator described that, at her institution, teaching faculty are paid a contracted wage plus a flat rate per student to teach online. This is in addition to their regular salaries. They are also paid separately for course development and voice-over videos that are prepared for the class website.

Interviewees recognized that institutions make money on distance education programs. In fact, some believed that money may be the main reason that some institutions get into distance education. One teacher, in the quantitative survey, shared his disdain over this attitude and felt the emphasis should be placed on the needs of faculty rather than counting the money that is made from online education. He did not provide further elaboration on specific needs of faculty.
A creative use of online tuition dollars was advocated for by one administrator/teacher. He felt that a portion of the online class tuition should come back to the department that offered and taught those classes. Then the department could buy more computers and hire staff to support faculty in course development and technical assistance. He indicated he felt that use of funds in this way was better than compensating faculty members above and beyond their existing salaries.

Cost effectiveness of Internet-based distance education was also discussed among participants. One administrator/teacher spoke to cost effectiveness of Internet-based distance education in comparison to a new building that was being built on his campus at the cost of $14.1 million dollars. While he agreed that the new building was going to be great, it did not keep him from wondering aloud about how many online students you could teach for that same amount of money. Cost effectiveness of Internet-based distance education would also appear to be the purpose of the comments shared by this upper level administrator in the quantitative survey: "[Distance education] also provides a crucial link for both reducing teacher travel time to meet with students at distance campuses, and also for reducing adult student travel time for summer education courses." Several felt that institutions should re-evaluate their distance education offerings and decide if they are cost effective and give the best education for the dollar.

Any discussion about cost effectiveness of distance education would take into account the costs of new technology and software. Two interviewees spoke to opposite ends of this issue. One teacher was concerned that new technology applications, such as white board, etc., could not be readily adopted because of the high expense. Conversely,
another interviewee boasted on the efficiency and financial savings that his institution was able to find in the new course management software.

As a final point, two teachers asked almost identical questions about the funding of distance education: How do we fund it? Where will the money come from? One teacher, from the comments section of the survey, suggested that if we do not find the money for distance education, “we will have failed in setting the sail for the future of the SDA educational system worldwide with all its needs.”

Faculty Support

The meta-theme of faculty support was only moderately endorsed by those interviewed with an intensity effect size of 10.8% (see Table 24). This meta-theme emerged as participants shared their stories about past and current participation in Internet-based distance education or what they thought were pressing needs for the future of distance education. Participant comments in faculty support represent two sub-themes: course management issues, endorsed by 66.7% of participants, and faculty training, endorsed by 77.8% of participants (see Table 27)

Table 27

| Participant Sub-Theme Endorsement: Faculty Support |
|--------------------------------------------------|-----------|
| Faculty Support Sub-Themes                      | Percentage|
| Course Management Issues                        | 66.7      |
| Faculty Training                                | 77.8      |
Course management. Course management issues highlighted the difficulty of the teacher's job to teach online and the structure that should be in place to support the efforts of teachers. Interviewees acknowledged that online course management can be time intense and overwhelming, because more time is spent per student than in face-to-face classes. One teacher's account of her own online course illustrated this challenge: “It is intensive to follow my distance students because they study irregularly. I want to give immediate response to them so I tend to engage with each student on a daily or weekly basis.”

Grading papers is another challenge for teaching online. Grading online was described by interviewees as cumbersome because it is harder to grade on a computer monitor than paper. One teacher related his personal experience of trying to teach a course online with minimal structure and assistance from the e-learning partner. He described that his best help for grading, etc., came from a terrific person in technical support right there on his campus.

Understandably, administrators had little to say about course management. One administrator/teacher indicated that course management should be the teacher’s domain, and administrators should be concerned with the policies and procedure that support teachers. Another mid-level administrator admitted that he believed administrators failed to recognize the time commitments needed to create and teach quality online courses.

Faculty training. Interviewee comments in this section centered on pedagogical and technical training infrastructures that would provide on going resources to faculty. They declared that faculty training in the use of technology and appropriate online
pedagogy was very important and emphasized it as one of the pressing issues for Internet-based distance education.

A respondent in the quantitative survey felt that many faculty members are highly motivated to move to the next level of technological functioning, but the logistical support (mainly time) is hard to come by. He believed that faculty who are using Internet-based distance education would say they do not think they are experts in technology and lack time for professional development to increase expertise.

Other barriers to technical competence may be psychological. One mid-level administrator reported that he had one or two faculty who did not understand computers and said that because of their age they were not prepared to learn it now. Another mid-level administrator also reported that a lot of faculty would not come to his technology trainings because they thought they would have to sit next to some know-it-all and just feel dumb.

Not all faculty are reporting technological incompetence. One mid-level administrator boasted about the technical competence of his specific department:

What we have is a pretty unique group. There are five of us and all of us are pretty astute in technology and so we are promoting it. We know that everything in our classes is already technology driven and/or based and I think that keeps us thinking a little bit ahead of other programs.

Training needs should also encompass how technology can be used in course development and teaching. Interviewees felt that even if faculty are technically competent, they may still find it very difficult to even conceptualize what it would be like to build a course and actually teach it online. One teacher mused that her experience had been that faculty think if they do something in a face-to-face classroom it can be done online. This does not always work, which leaves the teacher confused and frustrated.
Several interviewees spoke to the need for pedagogical training, but none gave specifics about whether this was happening formally on their campus. One mid-level administrator did indicate that while her faculty had training in the mechanics of course software, they really did not receive adequate training needed on how to put their lessons together.

Many of those interviewed advocated for the development of appropriate pedagogy for online teaching. One interviewee described lack of pedagogical training as scary and provided this explanation:

It's scary because we don't know how to teach even in face to face. Many of us never had pedagogy in school, we just came out of the professions and we just teach. Well, all of a sudden you realize that there are ten different ways to learn and you are only using one or two of them. What about the other eight?

Regardless of formal training, online teachers are finding support and answers to their questions. Interviewees benefit from talking with other online teachers who share ideas in course development and teaching, and working closely with technology departments on campus that assist them. One administrator/teacher declared that it is a goal for their institution to eventually have an expert in technological concerns and online course development in each school or department on campus. Currently, this same institution is assisting their faculty by trying to connect online teaching faculty to student workers who assist them with technical questions on the use of course management software.

There were other ideas from interviewees about how to train and support faculty to teach online. One mid-level administrator wondered why the institution did not pick up on the notion of hiring a distance-learning specialist to assist instructors, while another
administrator/teacher recommended that some sort of center to support faculty was needed over a single specialist.

Most likely, faculty support and training in most Adventist institutions are probably similar to this administrator/teacher's description of her department's no-fail training method: Just throw teachers into the deep end, show them how to swim, and then have them teach online.

**Student Support**

The meta-theme of student support was discussed by those interviewed with an intensity effect size of 5% (see Table 25). Participant comments represent two sub-themes: student access, endorsed by 88.9% of participants and student services, endorsed by 44.4% of participants (see Table 28).

Table 28

*Participant Sub-Theme Endorsement: Student Support*

<table>
<thead>
<tr>
<th>Student Support Sub-Themes</th>
<th>Percentage</th>
</tr>
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<tbody>
<tr>
<td>Student Access</td>
<td>88.9</td>
</tr>
<tr>
<td>Student Services</td>
<td>44.4</td>
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</table>

**Student access.** Interviewee comments in this sub-theme were centered on the students' need to access higher education in less traditional ways. First, interviewees recognized Internet-based distance education as a new component that opens education to constituencies that otherwise would be marginalized. Face-to-face students have requested and are expecting more online access to syllabi, submitting homework, etc.,
than they did even 5 years ago. In addition to requests for more web-enhanced classes, interviewees also reported personal experiences where student persistence resulted in new online classes and, in one case, an entire degree program.

Flexibility may be one reason for student persistence. Interviewees stated that students like online classes because it gives them the flexibility to live their lives. A high level administrator, who gave comments in the quantitative survey, also recognized that students like the flexibility that the online course brings to their schedules.

There were differing opinions on just who was the learner in web-based courses. Some had the perception that, with the exception of a few international students, the vast majority of students taking online courses are usually part of an in-residence program. One interviewee declared that, historically, online students are those who have only one or two course conflicts with graduation or are those students who have conflicts with traditional education, such as the working adult learner who needs to access education after work hours.

Regardless of who the online learner happens to be, it does appear that they are asking for choices in how they access their education. Some institutions have adjusted to student requests by designing online intensive programs and facilitating more online class offerings.

**Student services.** Interviewee comments in this section were very minimal, yet highlight a smattering of important issues for students learning from a distance. One of the most challenging problems discussed in regard to student services was the very obvious fact that students are not physically present on campus. This makes auxiliary student services more difficult and can give the student an unrealistic positive or negative
view of how the campus operates. In fact, one interviewee revealed that the problems they had on their campus with distance education was how financial aid handled online students. Additionally, one teacher was shocked to find out that over half the students signing up for online classes had no technology skills and several did not even own a computer. This teacher advocated that services to students taking online classes should include student pre-training and assessment of skills needed in order to take online classes.

**Evaluation and Assessment**

The last meta-theme under the institutionally-controlled benchmarks is that of evaluation and assessment. This meta-theme was only minimally discussed by those interviewed with an intensity effect size of 1.4% (see Table 25). Interviewee comments on this theme by and large resemble birdshot.

To begin, one mid-level administrator discussed an in-depth, macro-level assessment on the readiness for distance education in that institution. His description of that report is specific and shows the comprehensiveness to which the institution evaluated itself.

The report includes an introduction, background definitions, needs assessment of both school and departmental. We did a faculty-wide questionnaire, talked about computer access, instructional technology use, faculty views of teaching online and then we identified the impediments and preferences for the types of support for faculty. Then we gave a list of recommendations for what the university should do to plan for the use of technology on our campus.

Continued evaluation of online learning and evaluation as it related to online student testing within a course was also mentioned. One teacher indicated that she and others in her department were just beginning to sort out how to do web-based testing.
Another interviewee hinted at a possible assessment of best practices in their institution when she shared that there was some talk about doing research on the latest ideas of instructional technology and learning theory as they related to distance education.

Finally, one mid-level administrator shared how Internet-based distance education had influenced and enhanced his assessment of face-to-face classes being taught by faculty in his department. He described using multiple levels of assessment, including peer review, direct observation, and portfolios.

Faculty-Controlled Benchmarks

The faculty-controlled benchmarks are defined in this study by those benchmarks that are typically controlled by the teacher (Sparrow, 2002). The faculty-controlled benchmarks include: course development, teaching and learning, and course structure. In this section, the meta-themes of faculty-controlled benchmark will be discussed as they relate to the themes from which they were constructed. Figure 6 is a representation of the thematic structure of the faculty-controlled benchmarks.

Course Development

The meta-theme of course development with an endorsement rate of 88.9% (see Table 25) and an effect size of 6.1% (see Figure 6) was developed from the two sub-themes of curriculum development and design and quality-control guidelines. The sub-theme of curriculum development and design was endorsed by 77.8% (see Table 30) of the participants, while the sub-theme of quality-control guidelines was endorsed by 44.4% (see Table 29).
Figure 6. Thematic structure pertaining to faculty-controlled benchmarks.
Table 29

Participant Sub-Theme Endorsement: Course Development

<table>
<thead>
<tr>
<th>Course Development Sub-Themes</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Curriculum Development &amp; Design</td>
<td>77.8</td>
</tr>
<tr>
<td>Quality-Control Guidelines</td>
<td>44.4</td>
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Curriculum development and design. Opinions on curriculum development and design might be best characterized as having confidence that students are able to learn online, with curriculum development seen as a major element in facilitating the distance learning process. One teacher stated that in distance education, the process by which you develop the course becomes the biggest factor in what gets communicated to the students. He felt that when the student is sitting next to you in the room, the course design plays less of a role than it does in a distance course.

The comments of the participants also emphasized that learning online needed contrasting course designs for face-to-face versus distance education courses in order to achieve learning goals. Interviewees stated adamantly that there is no question that students learn online. One teacher spoke with mild irritation about the view of some educators that online course design was as simple as moving your existing face-to-face course online. He felt that all face-to-face courses need to be re-designed to fit the needs of the online format and that is not always as easy as it appears. Another participant described her own personal experience that tends to exemplify this idea: “I have facilitated statistics, and it was very math-based statistics and trying to explain how to do the math in a chat session is like ughhhhh!”
Interviewees also discussed the potential of good course design for meeting student needs and expectations for stimulating courses that adapt to learning interest and time demands. One teacher acknowledged that there was a real need to match course content with the appropriate design. For example, a web-enhanced basketball class would be superior to trying to teach that course content totally online.

Suggestions from interviewees for online course design included identifying common principles of design and implementation, tying learning theory to distance education, and looking at design as a holistic undertaking. One teacher said that the idea of spiritual course development, the whole being, mind, body and spirit, becomes even more crucial when designing a course for online education.

**Quality-control guidelines.** Several interviewees highlighted the need for institutions to have quality-control guidelines that would assure continued quality of online distance courses. One administrator felt that the goal of guidelines should be standards that would make distance courses as good or better than any face-to-face courses that are offered. He further described the guidelines as standards for developing distance courses, approving instructors and courses, and developing policies. These quality controls were described as important to distance education because, as another interviewee stated, there is an enormous difference between online education and online education done well. One mid-level administrator shared that he actively advocated and insisted on quality in online education at his institution.

Despite their recommendations to have quality-control guidelines in place, one teacher pointed out some difficulties that have already been encountered when the ADEC tried to initiate guidelines that would apply to all Adventist institutions. The biggest
issue cited by this interviewee was ADEC's lack of perceived authority by all of the institutions to be the body that assured quality in distance education.

**Teaching and Learning**

The meta-theme of teaching and learning with an endorsement rate of 77.8% (see Table 25) and an effect size of 16.3% (see Figure 6) was developed from the two sub-themes of teaching theories and methods and interactivity and community building. The sub-theme of teaching theories and methods, was endorsed by 77.8% (see Table 30) of the participants, while the sub-theme of interactivity and community building was endorsed by 56.6% (see Table 30).

<table>
<thead>
<tr>
<th>Teaching &amp; Learning Sub-Themes</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Theories &amp; Methods</td>
<td>77.8</td>
</tr>
<tr>
<td>Interactivity &amp; Community</td>
<td>55.6</td>
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**Teaching theories and methods.** Interviewee comments about teaching theories and methods did not focus on the use of any specific pedagogy when teaching online. When one teacher was asked specifically whether distance education was developing its own pedagogy, the response was, “I think it’s morphing a pedagogy.” However, several interviewees did indicate that they had to develop a different pedagogy for online teaching from the one used in the classroom. One teacher admitted that he had changed his view of himself as a teacher since teaching online. At times, he said, he felt more like a learning assistant than a teacher and confessed it was a little hard on the ego.
Although constructivism was not specifically named as the developing pedagogy for distance education, there is evidence in interviewee comments of a shift to a constructivist point-of-view. Demonstration of a constructivist perspective was evident in comments like, “It’s all about the students and where they are” or “Students work from the level where they are”. One mid-level administrator/teacher shared an excellent example of the notion that knowledge is not transmitted but constructed. She indicated, “If seat time equaled knowledge we would have a brilliant America. It doesn’t work that way and I need to figure out how to motivate students and I can do that just as well online.”

The focus on learning over teaching was voiced by several interviewees with some advocating that education needed to change its focus from teaching to learning. One interviewee claimed to have found a certain freedom in online teaching because distance is no longer a factor in learning.

An aspect of this changed focus from teaching to learning was demonstrated in views and comments on the role of the student. One teacher advocated that students begin to assume responsibility for their learning rather than blame the teacher for lack of learning. She felt that Internet-based courses required self-direction from students and that gives students more self-confidence rather than less. She also believed that her role as teacher online was to engage students in learning, but if the students do not want to learn, they still have that choice.

Interviewees also shared teaching methods that seem to reflect student-centeredness and an appreciation for non-traditional students. One teacher commented that one of her pet peeves with education was that it does not understand the adult
learner. She related an example of sitting on a board of education one day talking about sending teachers away to obtain teacher certificates at a college far away from their homes. These people were wives, husbands, and people with families, yet the only way they could get their certifications or advanced degrees was to go to a traditional college. You can imagine that this particular teacher did not remain silent in this meeting. Her first question was why the board was not demanding that this type of program be online.

Student-centered attitudes by teachers seem to be constructed, in part, from their own past experiences with online education. One teacher indicated that he did not realize the networking and level of interactions students accomplish until he taught online.

The description of the teaching methods being used by the participants further demonstrates student-centeredness and constructivism. One educator acknowledged that she was giving at least three or four options for every assignment, and students loved the choices admitting that the options were forcing them to take control of their education.

Case studies are another example of giving students a context to construct knowledge. One teacher confessed that she had been thinking about adding case studies to future online courses she was teaching.

The most common teaching methods discussed by the research participants involved the need to create stimulating learning environments through the use of multimedia and mixing teaching methods and materials in order to engage students with different learning styles. One teacher firmly believed that the more senses you engage in distance education, the better you will be able to communicate the content to the learner. Another interviewee stated that she sometimes set up an actual class time, using streaming video, so she could talk to students and see them face-to-face. Other methods
used included a combination of the Internet plus interactive television so that students could see the teacher and ask questions directly with answers being in real time.

Several interviewees elaborated on accommodating learning styles by saying they know different students benefit from having the written instruction as well as verbal instruction. One teacher was a big proponent of using multi-media for all learning and gave a vivid example of how ignoring the need for multi-media and multi-sensory methods may result in student dissatisfaction. Her story follows:

We usually do voiceover PowerPoint in teaching online classes. We had a teacher that did nothing. He did just the PowerPoint and the book and outline. You know, the students are screaming. I couldn’t figure out why. . . . So, I pull the class up online and I’m thinking, where’s the voice? So I’m thinking it must be my computer. I was like, what do you mean there is no voiceover. For this particular class I would have voiceovers as well as videos because this particular subject is a visual craft. We are currently re-doing the class and we’ll have all those pieces, but there’s such a learning curve for the faculty.

Another example of teacher sensitivity to learning styles is demonstrated by one interviewee’s commitment to type material for read/write learners, record information for audio learners, and provide a variety of multi-media for visual learners. This teacher advocated mixing face-to-face and online teaching methods. She described her program’s practices as definitely having personal contact at the beginning of the program. Students come for orientation before the fall quarter starts to meet teachers, tour the campus, learn the online software, and to begin instruction.

The challenges of teaching online were expanded upon by one teacher/administrator. She expressed concern that modeling professionalism for online students has been difficult since students do not see the teacher face-to-face every day. She further revealed that her school was still coming to terms with what can be done to help students solve this problem.
**Interactivity and community building.** In reviewing the data from the qualitative interviews, the interviewees thought interactivity and communication building between student and teacher and also between students were very important. Given that the interviewees expressed value in interactivity and community building, some of them also acknowledged the challenges of communicating in a virtual environment.

One interviewee used a metaphor of water through a hose to express the differences of communicating verbally versus virtually. He stated:

> If we were to use a fire hose as a method of distributing water and if water was the communications... I find face-to-face to be a fire hose, a really big fire hose. Now I can take and run a fire hose for fifteen minutes and totally saturate my backyard. If I took my regular half-inch garden hose, which would be more like a telephone conversation. My hands are up in the air as I speak, my eyebrows are moving up and down—you are missing that. Let's take some surgical tubing (online communication), and I hook up water pressure to that and now I go water my backyard. Now, I'm not sure the time elements work to the exact same degree that moving from face-to-face, a telephone mediated conversation to an online discussion board or chat, but in some sense that metaphor helps me to communicate my understanding of how face-to-face can communicate things very quickly and voice does a good job, voice inflection, is still a lot of meaning and is still very engaging.

Another teacher expressed understanding when her students talked about the disconnect they feel in not seeing the people with whom they are interacting. However, most interviewee comments described a high level of community building and interactivity happening in their classes and reported spending a lot of time assisting students with this process. One teacher encouraged students to make friendships with other students same by meeting outside of class. He also provided opportunities for students to share online about how their lives are going—the the highs and lows, dieting, and spirituality—all those topics that help to build community. Allowing communication within the class to be more than just about subject material motivated students to get involved in the class at
a higher level. This teacher suggested that he felt that building community in a virtual classroom was as difficult as trying to make it happen with a large face-to-face course.

As a counterpoint, one teacher’s perspective provided a view of the advantages of interacting online: “In an online course there can be no wallflowers. You must hear from everybody. You never get that in a face-to-face class.” This caveat of communicating in a face-to-face course is highlighted even further in this teacher’s reminder that in face-to-face courses there are always a few people who dominate the discussion and the rest sit and listen and never contribute anything.

A teacher shared his first experience of taking an online class, stating how impressed he was right from the beginning on the level of interactivity between students, instructors, and facilitators. Part of that interactivity he felt was built into the course, as every student was required to post a brief autobiographical sketch and a photo to the discussion board and then provide feedback to a minimum of two classmates’ postings. Additionally this teacher felt that courses with synchronous chats or even voice chats, or employed other technology where you could see a face while you talked, would only enhance online courses in building interactivity and community.

All interviewees seemed very committed to the development of community in their classes and shared creatively about ways to enhance the bonds with their students. Possibly that commitment comes from seasoned teachers who have learned earlier the importance of developing personal contact with students so that the bond between instructor and student facilitates learning regardless of environment.
Course Structure

The meta-theme of course structure with an endorsement rate of 22.2% (see Table 25) and an effect size of 1.7% (see Figure 6) is an example of a theme that was identified *a priori* in the literature (Phipps & Merisotis, 2000) but was discussed very little by the participants. The primary issue being discussed is having timelines for assignment due dates and course completion. One teacher discussed this issue at length, stating that because the institution had started distance classes without providing guidelines or timelines for course completion, students would sign up for a class and basically think of it as an open-ended independent study. He described the situation as a huge frustration to teachers due to high incompletion rates or students taking as long as 2 years to complete a course.

Only one other interviewee mentioned the issue of course structure by describing that her program had very structured guidelines about when assignments are due. These guidelines are built right into the course, and she felt that she had a good sense early on in the course about which students were going to have trouble meeting deadlines. This teacher felt that course timelines in terms of best practices are the best way to prevent poor completion rates.

Prevailing Attitudes of Distance Education

In addition to the discussion on benchmark themes, three additional themes emerged. The first of these additional themes relates to the prevailing attitudes interviewees continue to encounter about distance education. One of the interviewees actually used the term “brick and mortar mentality” to describe the prevailing attitude in higher education that face-to-face instruction is the only way for learning to take place.
Those interviewed seemed well versed in the many arguments posited for why online distance education cannot work or is somehow inferior. With the emergence of the theme of brick and mortar mentality, the opposite theme also surfaced, a theme my colleague and I call, “brick and click” mentality—a mind-set that promotes the use of technology in higher education.

**Brick and Mortar Mentality**

The meta-theme of prevailing attitudes of distance education had an endorsement rate of 100% (see Table 25) and an effect size of 9.4% (see Table 24) and was developed from the two sub-themes of brick and mortar mentality and brick and click mentality. The sub-theme of brick and mortar mentality was endorsed by 88.9% (see Table 31) of the participants, while the sub-theme of brick and click mentality was endorsed by 66.7% (see Table 31).

<table>
<thead>
<tr>
<th>Prevailing Attitudes Sub-Themes</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brick &amp; Mortar Mentality</td>
<td>88.9</td>
</tr>
<tr>
<td>Brick &amp; Click Mentality</td>
<td>66.7</td>
</tr>
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Most of the interviewees used adjectives such as struggle, fought, challenge, and resistance when discussing the brick and mortar mentality, giving one the sense that they were engaged in battle to defend distance education on their campuses. Conversely, it is interesting to note that two of the experts made statements that may demonstrate their
own personal struggles with this teaching paradigm change. One interviewee stated that he was opposed to online classes just for the convenience of schedule flexibility for students who already resided on campus. He felt that online education was really for those who were at a distance from the main institution, suggesting that online education should be the exception not the rule. This teacher also indicated he had a definite preference for teaching in a face-to-face environment rather than online. Another teacher echoed these same sentiments by saying he just did not think there was any substitute for real live contact between teacher and student in the learning environment.

Many interviewee comments displayed examples of arguments that they have encountered from administrators and teachers dismissing Internet-based distance education. An idea interviewees reported hearing a lot on their campus is that Internet-based education cannot be done. One mid-level administrator’s succinct assessment of the struggle that institutions face of a ‘brick and mortar’ mentality that thinks there is only one way to learn actually coined the theme for this section. Other participants have experienced this same mentality and report that educators continue to wrestle with the idea that if you cannot look into the eyes of your students, good learning is not happening. One administrator/teacher demonstrated this skirmish vividly in an anecdote she related while trying to convince a fellow teacher that online education was credible and produced positive outcomes:

I fought with her over and over and over and she said, ‘It can’t be done, it will not be the same learning, students won’t engage, they won’t do this, they won’t do that, they won’t do whatever.’ And I was like, Don’t tell me it can’t be done.
This interviewee also discussed other common misconceptions about Internet-based
distance education such as it is easier, cheaper, and less time consuming for student and
teacher, all ideas that she feels are dead wrong.

Another interviewee observed that the brick and mortar mentality is not only
confined to professors. His experience has been that students have a hard time accepting
that they are not going to sit in a classroom and learn the same way they have learned for
decades. The attitude from students is, Do you mean I am going to pay all this money
and there is no teacher getting up in front and teaching me something? Students can
therefore be included as assuming a brick and mortar mentality that does not allow them
to conceive that they can also learn in different ways.

Community building or social interaction seems to be another argument many
hear as a barrier to online teaching and learning. One teacher shared a conversation with
a colleague who kept stating that the building of community and especially a religious
community could not be done online. Another administrator/teacher stated that he thinks
there are some educators who feel that there is not a good way to make online education a
social thing. His experience, he says, tells him they are wrong.

Many statements also conveyed a sense that higher education holds fast to an old
and inflexible view of education. One administrator/teacher shared that she thought
education had not changed since Socrates was educated and, as a result, education is in a
crisis because we cannot do education entirely that way anymore. Another distance
educator was quick to note that there are curmudgeons out there who will challenge and
have a hard time seeing that online teaching is just a different way of learning.
One administrator/teacher was particularly ardent about the inflexibility of some of his colleagues:

I think a lot of colleges are going to lose the opportunity because they do have old and stodgy people who can’t think outside the box and in fact, not only do they not think outside the box, they find every way to say that online education is a cheap means of grabbing money and we all should be bigger and better than that. It is really just idiocy when you see Harvard, Yale and MIT and many other schools providing online courses and programs.

Additionally this same interviewee expressed that many will spend a lot of time pontificating on how they know online education will not work but do not have a clue that it is already happening right under their noses.

A teacher who responded to the quantitative survey included a very poignant and thoughtful commentary on his own conflicting, yet merging viewpoints of online education:

While I think that online learning adds some dimensions that are of greater educational benefit than the regular classroom (involvement of all students in presenting their ideas publicly), I also think that a great deal is lost. The influence of a Christian campus and Christian teachers can hardly be replicated on the web. I teach one class online that I also teach in the regular fashion. Students who have begun online, and not completed the course, and who have then taken the course from me in a regular classroom setting, have ALL (no exaggeration) said to me that this course should not be taught online. So, you can see I am a rather reluctant participant in the advance of educational technology. As a member of the old “graying” school, I accept the future but am saddened more than delighted by the prospects of online education. Collaboration is the name of the game, and I believe that much of the game is going to be played on the Internet. We cannot run from the future; not even the old “grays.”

Teachers espousing brick and mortar mentalities were described tongue in cheek by one interviewee as a lot of guys who have lecture notes built up that they do not want to throw away. Ironically, this administrator/teacher also observed the same mind-set existed among online teachers who were content to create a sort of correspondence course on the web rather than use the full potential of the Internet and other technology.
When asked about future issues facing Internet-based distance education, several participants highlighted issues of the brick and mortar mentality such as overcoming the stereotypical teacher, school, and student. One interviewee claims the biggest issue is higher education's resistance to change. Two other interviewees observed that potential loss of power for teachers and institutional politics would be the real challenges in the changing system. Finally, one mid-level administrator felt that fear was the real obstacle because nobody is quite sure where all of this is going to end up.

Given how often the participants used battle adjectives such as struggle, fought, challenge, and resistance, one interviewee's statement may provide an insight into how it feels to champion online distance education in an atmosphere of a brick and mortar fortress mentality: “The truth of the matter is that higher education strangles people with new ideas.”

**Brick and Click Mentality**

When interviewees were discussing education in an era of Internet technology, their comments may also be characterized as a brick and click mentality or a mind-set that promotes the use of technology in higher education. Interviewees see distance education enhancing but not replacing traditional education and recognize that the role of the teacher will change. They have confidence that Internet-based distance education is not a fad, and they see numerous opportunities for expansion in the future.

It is imperative to note, in light of earlier discussed findings, that interviewees do not suggest that Internet-based distance education will replace traditional education. Rather they see distance education as enhancing or broadening the scope of traditional education. One thing almost every interviewee agreed on was that Internet-based
education is here to stay. It may not be a panacea, as one teacher described, but it is not going away. One interviewee said that even with all the research to support the effectiveness of Internet-based distance education, he felt that online education was never going to replace traditional education.

One administrator/teacher talked about the changing role of the online teacher in terms of going from a “sage on the stage to a guide on the side.” She indicated that many people like the sage on the stage role of teaching as it gives a warm, important feeling. In fact, she thinks it is probably one of the reasons that many go into teaching—to give back knowledge and be important in the discipline. Conversely, the guide on the side role is not as glamorous, but one that this same interviewee finds rewarding and fulfilling. This kind of re-conceptualization of the role of the teacher we believe is a part of the brick and click mentality.

As a part of the brick and click mentality, the interviewees exhibited a future orientation and appeared to be open to and aware of opportunities to apply new educational technology. One administrator/teacher expressed that online distance education is in its infancy, and 25 years from now we will look back amazed as how far we have come. He used a creative analogy to further illustrate his concept.

A good analogy to online education is to think about when the first automobile was first created. I think we are in those very initial stages with online education. Some of the forms will stay, but in a few years down the road we are going to look back with some humor about what we are doing now.

The participants discussed many opportunities available through the use of Internet technologies, but often talked about them is terms of unmet potential. One interviewee said, “If we can find these benefits of distance education, we are not being smart if we ignore them. We need to continue to integrate them.” Another teacher states
that when doors open up we will need to walk into those new rooms and figure out new ways of integrating the past with the future. One interviewee called for a vision to discover those opportunities that are available but not capitalized upon. He prophesied that institutions and/or people who can think outside the box and use assets available in their environments are going to be the ones who take the market in higher education.

In the additional comment section of the quantitative survey, an academic dean shared her own conflicting, yet open ideas about the role of Internet-based education to higher education.

How crucial Internet-based education is to the future of the institution is a tough one. I think our institution would be successful without it. However, distance education is important to a certain niche at our institution, in my opinion and it also enhances face-to-face classes.

Working in teams may also be a characteristic of a brick and click mentality. Although the professor in traditional education can often function successfully in isolation, that same level of success may not be possible for a distance teacher. One administrator/teacher described that he and his colleagues work together; all five of them sit around, talk about how to make an online program happen, dream about the next big thing, decide on how they are going to do it and who will do what, and then just go out and do it. He chuckled when he related that after each big project together they get together and ask, “What’s our next big thing that will make us explode?” and then begin the process all over again.

Collaboration

The meta-theme of collaboration was endorsed by those interviewed with an intensity effect size of 9.1% (see Table 24). Participant comments in the meta-theme of
collaboration represent two sub-themes, barriers and opportunities. Both sub-themes were endorsed by 66.7% of participants (see Table 32).

Table 32
Participant Sub-Theme Endorsement: System Collaboration

<table>
<thead>
<tr>
<th>Systems Collaboration Sub-Themes</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barriers</td>
<td>66.7</td>
</tr>
<tr>
<td>Opportunities</td>
<td>66.7</td>
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</tbody>
</table>

Barriers

Over half of the interviewees had something to say about barriers to distance education collaboration between Adventist colleges and universities. One teacher captured well the unease some have with the discussion of a possible paradigm change by posing the question, “Can collaboration even be engineered?” Several participants felt that Internet-based distance education was being hindered by institutional boundaries and territorialism and it was how long you have been there, who you know, and who you are connected to that made the difference in whether collaboration was possible or not. It was felt by one administrator/teacher that larger institutions would always control any collaborative efforts between Adventist schools, and those with more power would only dictate policies and procedures to slow down distance education, not enhance it.

One mid-level administrator said that “If it is going to cost us something to let another Adventist school get some of our tuition dollars, than you bet administrators will want to take a hard look at that.” This interviewee reasoned that Adventist institutions are independent from each other financially and this fact alone will create the barriers in
trying to work together. He further postulated that the 'sine qua non' was, we are still trying to figure out if collaboration is financially viable for each institution.

Collaboration itself was seen by one interviewee as a barrier to growth in his own distance education program.

[Distance education] is a competitive market. We are all out for the same dollar and why should some schools take the initiative and foresight, working extremely hard to make it happen, just to be slowed down by some other institution that wants what they have.

It may also be that collaboration is not a practical option because, as one teacher asked, “When you have two colleges working together, who gives the degree?”

Finally, a self-described “old gray hair” teacher suggested that the greatest barrier may be the system’s own inability to move away from competition with each other and take advantage of the timely opportunity for collaboration. This respondent noted that public universities, with no ties to each other, are already collaborating with each other in order to maximize resources. He cautioned that if Adventist institutions do not figure out a way to maximize limited resources, it might result in the closures of some of the smaller and weaker campuses in the system.

Opportunities

Two interviewees enthusiastically discussed the strategic opportunities for collaboration that distance education provides the Adventist system worldwide. One teacher declared, “If we believe that we have the task in higher education of supporting a worldwide education system, online education and shared resources will be central to a strategy of helping our institutions in the developing world.”
Another administrator/teacher reflected he would rather approach distance education from the church organization, stating that if the church would actively get involved there would be ways of teaching around the world without having to go there anymore.

Another teacher saw collaboration as a way to give students the opportunity to expand options in education because it takes away geographical barriers. A vision of another teacher was that students could look on one website that showed course offerings from all Adventist schools, take the class, and have it transferred to the college they were attending.

Finally, a specific collaboration opportunity was discussed by a teacher as it related to the Adventist Distance Education Consortium (ADEC): “I think if ADEC is able to accomplish it’s mission to incorporate the classes taught at Adventist colleges within a block tuition for students, this would be exciting.”

Qualities of the Expert

The meta-theme called qualities of the expert was endorsed by all nine interviewees and had an intensity effect size of 19.9% (see Table 24). These nine interviewees were identified when survey participants were asked to name an Internet-based distant education “expert” on their campus. As a result, these nine individuals have been our “experts” for the qualitative portion of this mixed-methods study.

Qualities of the expert emerged in response to the direct question asked of interviewees, “Why do you think you are considered an expert in Internet-based distance education on your campus?” Interestingly, participant responses developed a unique and detailed composite of who they were as experts, and this synthesis may give us a window
into the Internet-based distance education expert on other higher education campuses across America.

First, several of our experts were people who did not see themselves as experts. When these humble individuals were told that they were listed as an expert on their campus, they responded with, “That is so interesting to me. I never saw myself as that” or, “I don’t know why I am perceived that way because I sure don’t perceive myself as an expert.” Two participants responded with humor by stating that experts were really nothing more than water under pressure or just someone who seems to know more than the person he is talking to. True to their academic roots, most felt that ultimately the answer should depend upon how expert was being defined, but when we refused to qualify the term, they all eventually answered the question in ways that uniquely described what they were doing in their institutions.

We found that eight of the nine experts interviewed were teaching in professional programs within their institution. One administrator/teacher may have provided a partial explanation to this phenomenon by saying that professional programs must be computer literate because the practice discipline expects that of graduates. Six of the nine experts were mid-level administrators in addition to teaching Internet-based courses.

One person had no idea why they were being called an expert on campus except for the fact that they were willing to venture forth and assist in online program development. Another individual had similar thoughts and saw their expert status resulting from the fact that they had been involved with distance education from the beginning on their campus. The majority of these pioneers in online education gave similar self-descriptions of just being willing to get out there to explore and try new and
different things. They used words like innovators, risk-takers, and early adopters, and declared unabashedly that they were technologically competent, and not afraid of looking silly. Several interviewees described the passion they have for online teaching and course design. They enjoyed, loved, or were excited by it and were interested in ensuring that quality teaching is occurring in online classes. In addition, many of our experts were enthusiastic about the potential of technology and looked actively for creative ways to use new technology in any teaching environment.

Three of the nine participants were deliberate with their risk-taking by seeking graduate degrees that focused on education and technology. One participant recognized that just having that degree seems to make a difference as to why someone would consider him an expert. Others felt that because they had more online teaching or technology experience than others on their campus, people saw them as the to-go-to person for education technology and distance learning.

Being further down the road, already having taught four or five courses online or having the experience of putting whole programs online gave many of these experts the additional unsolicited role of mentor. They described themselves as the “go to” guys and the colleagues whom people just drop in on out of the blue to ask technological questions. Many spend a lot of time teaching educators on their campuses the various forms of technology in education and how to teach online. These experts just make themselves available to help others. One interviewee revealed that helping others with all their questions could be difficult at times, especially when people just drop by without regard for schedules.
Who are these experts? They are risk-taking, technologically competent educators who continue to find new ways to demonstrate individual passions in an exciting new paradigm of education in hope that others will catch a vision of the future.

Summary

This chapter provided the results of both studies in this collaborative mixed-methods study. The quantitative results of the study were presented first, followed by the themes that emerged from qualitative interviews.
CHAPTER FIVE

SUMMARY, FINDINGS, DISCUSSION, AND RECOMMENDATIONS

This chapter provides a brief summary of the study, a review, findings and discussion followed by specific recommendations for practice and research as they relate to distance education institutional practices. Susan Smith, my colleague, discusses the issues of faculty and teaching and learning in distance education more specifically in her study.

Study Summary

An examination of Internet-based distance education is important in order to maintain the delivery of quality higher education and to encourage the systemic adoption of institutional and instructional policies and practices that promote excellence in Internet-based distance education. The quality of online distance education will increasingly become the standard by which students choose a program as their educational options increase due to the dramatic growth in distance education course offerings. The purpose of this mixed-methods study is to determine to what extent the nine participating Adventist colleges and universities in North America meet the IHEP benchmarks for quality Internet-based distance education (Phipps & Merisotis, 2000) and to better understand administrators’ perceptions and experiences regarding Internet-based distance education.
This collaborative study used a sequential exploratory mixed-methods design in which administrators and teachers in nine Adventist colleges and universities across the United States were surveyed, using an electronic version of the IHEP benchmarks. This survey was followed by a qualitative phase of the study that involved telephone interviews with one identified expert in Internet-based distance education at each of the nine campuses.

The overarching results of this study indicate that Adventist colleges and universities must be more intentional and deliberate in the strategic planning and delivery of online distance education. When results are viewed through the lens of Moore and Kearsley’s (2005) systems model of distance education, Adventist colleges and universities are not actively responding, either individually or collectively, to several main components within the larger system of distance education. Implications for administrators include attention to strategic planning for technology infrastructure and teaching with technology, policy and management structures, and monitoring and evaluation. In addition, results indicate that most schools in this study are traditional, face-to-face institutions operating under a “lone ranger” model of distance education organization (Bates, 2000, p. 60). Specific findings related to research questions and specific hypothesis are reviewed below and further statements on how underlying theories support those findings are found in the discussion section at the end of the chapter.
Findings

The findings of this study are explored in relation to the following two overall research questions:

1. To what extent do these Adventist colleges and universities demonstrate quality Internet-based distance education as measured by the IHEP benchmarks?

2. What other issues are identified that are important to administrators regarding Internet-based education?

In addition, findings are discussed in relation to specific hypotheses developed for the quantitative portion of this study:

**Hypothesis 1**: Adventist colleges and universities involved in Internet-based distance education meet the IHEP benchmarks for high-quality distance education.

**Hypothesis 2**: There is no difference between the levels of experience and administrator/faculty perceptions on the IHEP benchmarks.

**Hypothesis 3**: There is no difference between administrator and faculty perceptions on IHEP benchmarks.

**Hypothesis 4**: There is no difference between administrator and faculty perceptions regarding their roles in visioning, strategic planning, and policy-making.

**Hypothesis 5**: There is a correlation between faculty compensation for teaching online courses and their consideration to teach online for another institution.

**Hypothesis 6**: There is no difference between administrator and faculty perceptions regarding the importance of Internet-based distance education to the future success of their institutions.
Qualitative and quantitative data were compared and synthesized in order to provide broader understanding of the questions studied. In general, the perceptions of administrators and teachers in the quantitative phase of this study were not significantly different, however, the study did uncover weaknesses in meeting the institutional-controlled benchmarks that support a high quality distance education program.

Unexpected findings included gender differences in benchmark perceptions and the influence of mid-level administrators with teaching experience on Internet-based distance education. The qualitative portion of the study illustrated and clarified some of the trends found in the quantitative data and reinforced the need for attention to strategic planning and faculty support within the institution.

Determining Factors in Interpreting Findings

In the quantitative phase of the study, the survey questions asked the participants to rank the degree to which the benchmarks characterized their Internet-based distance education practices on a 5-point scale, with 1 being Strongly Disagree and 5 being Strongly Agree. A means score above 3 was interpreted as affirmative to that benchmark. The participants were also given the option of selecting “I don’t know” as a response, which was not reflected on the five-point scale.

Therefore, the determination of whether each benchmark was met is demonstrated in two ways: (a) the achievement of a mean score above 3, as discussed above, and (b) whether the majority of the respondents provided an affirmative response of strongly agree or agree on the 5-point scale. In order to conclude that the benchmark had been met for quality, both of these criteria needed to be present. Conversely, quality was not
met if the majority of respondents did not know, disagreed, or strongly disagreed on that benchmark.

In the qualitative data analysis, the benchmarks were used as an *a priori* thematic categorization in order to facilitate the comparison of the quantitative and qualitative data for the purpose of complementarity to enhance, illustrate, and clarify the results from the quantitative analysis with the results of the qualitative analysis (Green & Caracelli, 1997).

**Question 1—Benchmark Quality**

This section discusses the findings related to research question 1: To what extent do these Adventist colleges and universities demonstrate quality Internet-based distance education as measured by the IHEP benchmarks?

After a brief explanation regarding the determining factors used in interpreting findings, the institutional-controlled benchmarks (institutional support, student support, faculty support, and evaluation and assessment) is reviewed and the data from the quantitative and qualitative analyses is compared, followed by the same process with the faculty-controlled benchmarks (course development, teaching/learning, and course structure).

**Institutional-Controlled Benchmarks**

This section discusses the quantitative and qualitative data comparison of the institutional-controlled benchmarks: institutional support, faculty support, student support, and evaluation and assessment.
Institutional support. The survey results demonstrated affirmative mean scores between 3.95 and 4.16 (see Table 1) for the three institutional support benchmarks. In the qualitative phase of the study, the institutional support benchmarks had an overall intensity effect size of 20.2% (see Figure 5), the highest effect size in the study. The interviewee's discussion was focused in two areas: vision, mission, and strategic planning and financial challenges of institutions.

Benchmark 1: The first institutional support benchmark as outlined by IHEP (Phipps & Merisotis, 2000, p. 2) states: “A documented technology plan that includes electronic security measures is in place and operational to ensure both quality standards and the integrity and validity of information.” The survey finding revealed that the majority (67%) of respondents gave an affirmative response of strongly agree or agree (see Table 1) that a documented technology plan was in place in the institution. With a mean score of 4.16 and the majority of the respondents providing an affirmative response, the conclusion is made that this benchmark is being met in all nine institutions. This finding is similar to findings in research done by King et al (2000a) on the existence of policies for technology infrastructure in Nebraska institutions of higher education.

Interestingly, in the qualitative phase of the study, the theme of vision, mission, and strategic planning demonstrated an endorsement rate of 100% (see Table 27) and the participants’ comments were characterized by the view that there was a lack of institutional vision and strategic planning for distance education and technology. When asked specifically for technology plans, only two of the participants indicated that their institutions had strategic plans targeting technology and/or distance education and provided copies of the plan for review. Additionally, two interviewees revealed that
strategic plans (not technology plans) existed on their specific departments, but were not representative of institution-wide planning on distance education.

Stark contrast exists between the quantitative and qualitative findings. Quantitative results indicate that this benchmark is very characteristic of campus practices, yet the majority of qualitative participants who were identified as experts cited a lack of institutional strategic or technology planning and could not readily identify institutional plans for either. This may be due, in part, to whether participants in the quantitative portion of the study interpreted the technology plan as a formal document. Most administrators and faculty may have good informal knowledge as to whether technology is secure and functional on their campus and may translate the knowledge of an adequate, working system to the presence of a formal technology plan. It also may be that the campus expert did not have the correct or adequate knowledge about the technology plan’s existence, and if this same request were made of administrators who regularly participated in institutional planning, more formal plans may have presented themselves. Regardless, Smith’s (2002) observations about the difficulty institutions have in deciding how technology and distance education fit into the function and goals of the institution may be relevant here. In addition, it should be noted that institutional technology plans that reflect the mission and culture of the institution are not optional in today’s world (Barone, 2001; Daniel, 1999; Katz, 1999; Moore & Kearsley, 2005; Phipps & Wellman, 2001; Pisel, 2001).

Benchmark 2: The second institutional support benchmark as outlined by IHEP (Phipps & Merisotis, 2000, p. 2) states: “The reliability of the technology delivery system is as fail-safe as possible.” The quantitative survey findings revealed a mean score of
3.95, and the majority (71%) of respondents gave an affirmative response of strongly agree or agree (see Table 1), therefore confirming that this benchmark has been met. This is consistent with similar finding by other researchers (Butler & Sellbom 2002; King et al. 2000a). In the qualitative phase of the study, the participants spoke only moderately about information technology, and their comments were primarily focused on the issue of affordability of new technology rather than the delivery system. Consequently, the qualitative data on information technology are found under the theme of financial challenges. The participants did not speak directly to the issue of reliability in the qualitative portion of the study.

The fact that the benchmark was met and there was little discussion by qualitative participants may mean that system reliability is, in fact, high and a relative non-issue for faculty and administrators in all nine schools. Sparrow (2002) found that many schools in her study had maintenance policies in place to ensure a reliable system but specific practices and procedures were not documented. Other literature suggests that it may be possible for faculty working with instructional technology to develop high tolerance for system failure within an institution (Butler & Sellbom, 2002), which may be another reason that system reliability is rated favorably in this study.

Benchmark 3: The last institutional support benchmark outlined by IHEP (Phipps & Merisotis, 2000, p. 2) states: “A centralized system provides support for building and maintaining the distance education infrastructure.” The quantitative survey results showed a mean score of 4.14, and the majority (79%) of the respondents gave affirmative responses to this benchmark indicating that this benchmark for quality is being met in the Adventist institutions surveyed.
In the qualitative phase of the study, the participants felt that support for a centralized system for distance education was primarily impacted by the high cost of technology and the lack of institutional vision and strategic planning for distance education and technology. Participant comments may highlight the growing concern of many in the field on how institutions will sustain and maintain the growing distance education infrastructure (Phipps & Wellman, 2001; Rumble, 2003; Spicer & DeBlois, 2004). The need for mission-driven, institutional-wide technology and distance plans that provide for ongoing maintenance of distance education infrastructures is well documented in the literature (Barone, 2001; Daniel, 1999; Katz, 1999; Moore & Kearsley, 2005; Phipps & Wellman, 2001; Pisel, 2001).

**Faculty support.** The survey results demonstrated affirmative mean scores between 3.10 and 4.18 (see Table 6) for the four faculty support benchmarks. In the qualitative phase of the study, the faculty support benchmarks had an overall intensity effect size of 10.8% (see Figure 5) and the interviewees' discussion focused on the two areas of course management issues and faculty training.

**Benchmark 4:** The fourth benchmark which represents the first faculty benchmark as outlined by IHEP (Phipps & Merisotis, 2000, p. 3) states: “Technical assistance in course development is available to faculty, who are encouraged to use it.” The quantitative survey results revealed a mean score of 4.18 and that the majority (75%) of respondents gave an affirmative response of strongly agree or agree (see Table 6), indicating that this benchmark is being met.

In the qualitative phase of the study, the theme of course management issues demonstrated an endorsement rate of 66.7% (see Table 27). Interviewees indicated that
their best source of help when developing an online class came from the technical support staff, other teachers who were teaching online, or from e-learning partners. These comments support the quantitative findings that teachers are indeed receiving technical assistance in course development yet give a rather hazy picture of what specific supports are available to faculty. Qualitative interviews also appear to characterize many online teachers in Adventist higher education operating in Bates's (2000, p. 60) "lone ranger" model of course design and delivery, accessing technical support only when needed. While this approach may maintain the autonomy of the teaching method of individual faculty, time on technical work could be done more efficiently and professionally by someone else trained in technical design (Bates, 2000). The lack of available technical and training support for faculty wishing to teach online continues to be a problem for faculty and is a common thread discussed in current literature (Butler & Sellbom, 2002; Lee, 2002; Mechanic, 2001).

Benchmark 5: The fifth benchmark which represents the second faculty support benchmark as outlined by IHEP (Phipps & Merisotis, 2000, p. 3) states: "Faculty members are assisted in the transition from classroom teaching to online instruction and are assessed during the process." The quantitative survey results revealed a mean score of 3.41, and that the majority (53%) of respondents gave an affirmative response of strongly agree or agree (see Table 6) that this benchmark characterized their program. However, a significant portion (48%) of the sample did not provide an affirmative response: 5% did not know whether this type of assistance existed, 16% gave a neutral response, 16% disagreed, and 11% strongly disagreed (see Table 6). This implies only a modest affirmation that this benchmark was met. Clearly, there are numerous
respondents who feel that faculty assistance in transition from classroom to online teaching is not available to them on their campuses.

This less than stellar finding was again confirmed in the qualitative portion of the study where the theme of faculty training demonstrated an endorsement rate of 77.8% (see Table 27). The interviewees agreed that one of the most urgent issues is assisting faculty in making the transition to teaching online, with one of the biggest challenges being that teachers and administrators assume that teaching with technology is no different from teaching in a face-to-face classroom (Moore & Kearsley, 2005).

Pedagogical training was discussed as a vital component in support of faculty making the transition. Current research suggests that faculty are not prepared to teach online and often lack pedagogical training for web-based teaching (Chizmar & Williams, 2001; Wilson, 2001). Comments in the qualitative interviews suggest that some faculty do not seek training and assistance, even when offered, because they are intimidated by the use of technology and are afraid of looking dumb. Butler and Sellbom (2002) found that difficulty in use of technology and in learning technology is the second biggest barrier for not adopting technology in teaching, and Berge (1998) discusses faculty fear of computers. Additionally, Lee (2002) found that faculty are more concerned with amount and quality of support services over a variety of technology services.

Benchmark 6: The sixth benchmark which represents the third faculty support benchmark as outlined by IHEP (Phipps & Merisotis, 2000, p. 3) states that: “Instructor training and assistance, including peer mentoring, continues through the progression of the online course.” The quantitative survey results revealed a mean score of 3.23. However, even though the mean score was above a 3 on the 5-point scale, the majority
(59%) of respondents did not give an affirmative response to this benchmark (see Table 6). Sixteen percent did not know, 17% gave a neutral response, 13% disagreed, and 13% strongly disagreed, indicating that this benchmark is not characteristic of campuses practices.

*Time* was again stated as a constraining issue in the professional development and mentoring of faculty in distance education in the qualitative interviews. This is consistent with findings in other studies (Berge, 1998; Butler & Sellbom, 2002; Dillon & Walsh, 1992; Wilson, 2001). Discussion also involved the lack of support that teachers face in managing an online class and how beneficial it was “having another human being to just sort of stand and give ideas.” This implies that mentoring may be happening informally on some campuses. Only one other campus illustrated a bit more structure in this area through a campus policy of assigning students to help train and assist faculty who were teaching online. Though most of the training focus was largely on technical issues rather than pedagogical concerns, and it certainly could not be considered peer support, it still represents an attempt at ongoing support for online teachers. Continued support and mentorship for faculty might be described as an element that is organically evolving on some campuses. It would appear, however, that few are deliberately planning for this element of faculty support. This may be due, in part, to administrators’ lack of understanding regarding the needs of faculty teaching online and inadequate funding to support additional technical staff. Peer mentoring programs for faculty may be a cost-effective way to meet this need. Findings on this benchmark are consistent with literature on instructor training and support (Berge, 1998; Lee, 2002; Mechanic, 2001; Wilson, 2001).
Benchmark 7: The last faculty support benchmark as outlined by IHEP (Phipps & Merisotis, 2000, p. 3) states that: “Faculty members are provided with written resources to deal with issues arising from student use of electronically-accessed data.” The quantitative survey results revealed a mean score of 3.10, the lowest mean score of all of the benchmarks and that the majority (60%) of respondents did not give an affirmative response (see Table 6). Fourteen percent did not know, 10% gave a neutral response, 23% disagreed, and 13% strongly disagreed. Although the mean score is just above 3, a larger percentage of the respondents did not agree that this benchmark is a part of campus practices.

In the qualitative phase of the study, the interviewees did not discuss the issue of written resources to deal with student use of electronic data and/or library access. This finding may be a result of a lack of institutional policies in this area (King et al., 2000a) or faculty and administrator lack of information on student issues that result from use of electronically accessed data.

**Student support.** The survey results demonstrated affirmative mean scores between 3.41 and 4.21 (see Table 5) for the 4 student support benchmarks. In the qualitative phase of the study, the student support benchmarks had an overall intensity effect size of 5% (see Figure 5) and the interviewees' discussion focused on the two areas of student access and student services.

Benchmark 8: The eighth benchmark represents the first student support benchmark outlined by IHEP (Phipps & Merisotis, 2000, p. 3) and states: “Students receive information about programs, including admissions requirements, tuition, and fees, books and supplies, technical and proctoring requirements, and student support services.”
The quantitative survey results revealed a mean score of 4.21 and the majority (75%) of respondents gave an affirmative response of strongly agree or agree (see Table 5) that this benchmark characterized their program. This high mean score and large majority of the sample responding in the affirmative indicate that this benchmark was met. This finding is consistent, in part, with current literature that suggests that distance education policies addressing student issues of admission, registration, course and material delivery, and financial aid are in place in colleges and universities (King et al., 2000a; WCET, 2003).

The WCET LAAP project (2003) also found that students identified neglected support service areas such as tutoring, academic advising, counseling, and library access. This project has developed guidelines and templates for these neglected service areas that may be of help to administrators in higher education institutions (WCET, 2003). Adventist colleges and universities may want to review student support service areas in distance education and evaluate whether new support services should be added or existing services enhanced. Sparrow (2002) found wide diversity of information access and services for the distance learner with comprehensive plans in place for supporting students.

In the qualitative phase of the study the participants did not specifically address the issue of students receiving information; however, in the sub-theme of student services, which had an endorsement rate of 44.4% (see Table 28), one participant did express concern about the manner in which financial aid was working with distance students. Evidence is available that supports the idea that distance education students are challenged by existing financial aid laws and regulations (Dirr, 2003; IHEP, 1998). Distance education programs must be innovative in how they work with students in their
programs (Dahl, 2004). Recommendations for changes in student financial aid policies in distance education are shared in a report by the Institute of Higher Education Policy (IHEP, 1998). It is essential that institutions of higher education advocate for policy changes that will benefit the distance education student.

Benchmark 9: The ninth benchmark represents the second IHEP student support benchmark (Phipps & Merisotis, 2000, p. 3) and states: “Students are provided with hands-on training and information to aid them in securing material through electronic databases, interlibrary loans, government archives, news services, and other resources.” Although the quantitative survey results revealed a mean score of 3.41, the majority (54%) of respondents did not agree (see Table 5) that this benchmark characterized their program. Sixteen percent did not know, 16% gave a neutral response, 17% disagreed, and 5% strongly disagreed. In the qualitative phase of the study, the sub-theme of student services, interviewees did discuss the issue of students needing pre-training before engaging in an online class. They were more concerned about whether students knew the parameters of the class, could use the Internet and e-mail, and could function in a chat room. These concerns appeared to be aimed at the more non-traditional student who had not grown up in a digital age. There were no comments about training to the realm of researching online sources in the qualitative interviews.

The low affirmation on this benchmark by respondents appears to be a clear signal that the majority of students on Adventist campuses are not being trained, or at least not being trained well in electronic library access issues. However, it should be argued that this training may be more available than some realize yet look very non-traditional. Student demands in education today are about accessibility, diversity, and
flexibility (Daniel, 2000), and non-traditional learning environments are part of what characterize education today (Gandel et al., 2004). Goodman (2001) suggests that training for students and faculty alike on how to access electronic data is a serious mission of libraries on higher education campuses. Library service guidelines speak directly to assisting distance education students in instruction on accessing electronic resources (Foster, Bower, & Watson, 2002).

My own informal check of three library web-pages of institutions represented in this study found that all three had computer-assisted instruction and tutoring to teach students how to access electronic databases, interlibrary loans, and other resources. The online tutorials proved to be quite simple. Two of the three sites featured an “ask the librarian” button, which allows students and faculty to quick access help in searches. I sent in a quick question on one of the sites and had an answer within the day. A quick check of my own campus library found two librarians assisting students in hands-on learning in electronic searches. My own experience with several libraries in my doctoral work has been of this nature—librarians assisting me in a personal way to learn certain databases and search engines. It may be that more formal training is needed and should be happening on our campuses. However, it also may be that the biggest challenge in this area is not about whether training is happening but, rather, informing faculty and administrators as to how this training really may be taking place in Adventist institutions.

Benchmark 10: This benchmark represents the third student support benchmark (Phipps & Merisotis, 2000, p. 3) and states: “Throughout the duration of the course/program students have access to technical assistance, including detailed instructions regarding electronic use, practice sessions prior to the beginning of the
course, and convenient access to technical support staff.” The quantitative survey findings revealed a means score of 3.90, and the majority (59%) of respondents gave an affirmative response of strongly agree or agree (see Table 5). However, a little under half (42%) of the sample did not provide an affirmative response. Current literature (Hitt & Hartman, 2002; Laird, 2004) discusses the crucial need for technical support services and models to make assistance available to distance education students who participate in coursework at all hours.

In the qualitative phase of the study, the theme of student access demonstrated an endorsement rate of 88.9% (see Table 28). However, access was discussed here in terms of the marginalized students. The caution was not to invest too heavily in the notion that distance education would provide greater opportunities of access for higher education for these students, due to the global problem referred to in the literature as the digital divide (Damarin, 2000; Moore & Kearsley, 2005). It would appear, as with traditional education, that access is still significantly determined by race, income, and geographic location (Moore & Kearsley, 2005). Access to technical support was not directly addressed; however, the sub-theme of student services did allude to the need for student training prior to enrollment. The Higher Education Program and Policy Council of the American Federation of Teachers (2000) published practice standards for distance education that support student training before online courses begin. Benchmark 21, under course structure in this study, also speaks directly to specific areas of student training before courses begin.

It should be noted that distance education students with disabilities have similar access issues in addition to special needs in accessing course materials and instructions.
ADA guidelines must be adhered to for all distance education courses and programs (Oblinger et al., 2001).

Benchmark 11: The last student support benchmark (Phipps & Merisotis, 2000, p. 3) states: “Questions directed to student services personnel are answered accurately and quickly, with a structured system in place to address student complaints.” The quantitative survey results revealed a mean score of 3.56; however, the majority (61%) of respondents did not give an affirmative (see Table 5) that this benchmark met quality in their institutions. The largest portion of the sample (34%) responded that they did not know, 10% gave a neutral response, 13% disagreed, and 4% strongly disagreed.

Although the mean score is above 3, the large number of respondents who did not know or disagreed appears to be an indication that there is a general lack of awareness regarding the quality of the support staff’s services to distance education students. As with several of the benchmark questions, this one is double-barreled. It is hard to know what respondents may have been thinking when answering this question. In some cases it could be that a structured system was in place, but student services personnel were not responding quickly or accurately. Or perhaps service personnel are exceptional but are trying to respond to student complaints in random and roundabout ways because no formal system is in place. Regardless, it does appear that this is an area where already established policies for how to respond to traditional student complaints could be easily adapted to fit the needs of distance students (Gellman-Danley & Fetzer, 1998; King et al. 2000a; Simonson & Bauck, 2003). The interviewees in the qualitative portion of this study did not address this issue, which may be another indication of a lack of awareness for the need for this specific policy or maybe just a lack of student problems.
Evaluation and assessment. The survey results demonstrated affirmative mean scores between 3.29 and 3.62 (see Table 7) for the 3 evaluation and assessment benchmarks. In the qualitative phase of the study, the evaluation and assessment benchmarks had an overall intensity effect size of 1.4% (see Figure 5) and an endorsement rate of 55.6% by the interviewees (see Table 24).

Benchmark 12: The twelfth benchmark represents the first evaluation and assessment benchmark as outlined by IHEP (Phipps & Merisotis, 2000, p. 3) and states: “The program’s educational effectiveness and teaching/learning process is assessed through an evaluation process that uses several methods and applies specific standards.” The quantitative survey results revealed a mean score of 3.60 and that the majority (52%) gave an affirmative response of agree or strongly agree (see Table 7) indicating that this benchmark was met. However, almost half the sample (48%) did not know or disagreed that distance education programming is being assessed, which implies that this benchmark is not being met with overwhelming success.

In the qualitative interviews, no one spoke to program evaluations; however, one dean mentioned that their institution was evaluating teaching effectiveness using a variety of methods. The ambivalence around this finding is not surprising. Traditional education continues to struggle with evaluation and assessment of traditional academic program goals and distance education appears to be no different (Thompson & Irele, 2003). Accreditation standards for evaluation and assessment of distance education already exist (Council of Regional Accrediting Commissions, 1997) and accreditation bodies are compelling institutions of higher education to come into compliance in traditional and distance educational programs. Lippincott (1999) provides specific information on
survey instruments for teaching and learning in technology. A specific course evaluation tool developed by adapting the IHEP benchmarks under course structure, student support, and teaching and learning may be useful for course evaluations (Jurczyk et al., 2002).

Benchmark 13: This benchmark is the second in evaluation and assessment (Phipps & Merisotis, 2000, p. 3) and states: “Data on enrollment, costs, and successful/innovative uses of technology are used to evaluate program effectiveness.” The quantitative survey results revealed a mean score of 3.29 and that the majority (62%) did not provide affirmative responses (see Table 7). Twenty-nine percent responded that they did not know, 6% gave a neutral response, 20% disagreed, and 7% strongly disagreed. Although the mean score is above 3, the large number of respondents who did not know or disagreed that data were used to evaluate program effectiveness affirms that this benchmark was not met. Reasons for poor assessment in this area may be because evaluation often is more an afterthought rather than embedded in the initial planning of the program (Thompsen & Irele, 2003).

In the qualitative interviews, evaluation and assessment was not discussed in terms described above. However, one interviewee did describe a thorough needs assessment done at his institution regarding computer access, instructional technology use, and faculty views of teaching online, which resulted in a distance education strategic plan for the campus. The benchmark quality described here is one that could be accomplished through more comprehensive distance education and technology planning (Daniel; 1999; Moore & Kearsley, 2005). Sparrow (2002) found enrollment data were being collected in institutions; however, it was not being compiled and used for evaluation of distance education programming. Finally, one might speculate that focused
attention to this benchmark could impact future budgets of distance education more positively. Current literature (Bates, 2000; Foster & Hollowell, 1999; Thompson & Erele, 2003) supports evaluating ongoing costs as a part of thorough assessment in the measurement of the effectiveness of distance education.

Benchmark 14: The last evaluation and assessment benchmark (Phipps & Merisotis, 2000, p. 3) states: “Intended learning outcomes are reviewed regularly to ensure clarity, utility, and appropriateness.” The quantitative survey results revealed a mean score of 3.62 and that the majority (51%) gave an affirmative response of agree or strongly agree (see Table 7) that this benchmark characterized their program. Again, a large portion of the sample (49%) did not answer in the affirmative, providing weak support, at best, for this benchmark. None of the interviewees in the qualitative phase of the study discussed the practices of reviewing learning outcomes regularly to ensure quality. It appears that evaluation and assessment in all 3 areas measured by the benchmarks is mediocre at best in the Adventist colleges and universities studied.

Current literature (Bates, 2000; Phipps & Merisotis, 2000; Thompson & Irele, 2003) suggests that evaluation and assessment is important to the quality of online distance education yet, as is the case with traditional education, it often appears to be poorly designed and occurs more as an afterthought rather than being central to the planning process (Thompsen & Irele, 2003).

Faculty-Controlled Benchmarks

This section will review the data comparison of the faculty-controlled benchmarks by providing a summary of the quantitative and qualitative results on the benchmarks of course development, course structure, and teaching/learning. A more thorough
discussion of the faculty benchmarks can be found in the collaborative counterpart of this dissertation, presented by my colleague, Susan Smith.

**Course development benchmarks.** The survey results demonstrated affirmative mean scores between 3.62 and 4.14 (see Table 2) for the three course development benchmarks. In the qualitative phase of the study, the course development benchmarks had an overall intensity effect size of 6.1% (see Figure 6) and the interviewees’ discussion focused on the two areas of quality control guidelines and curriculum development and design.

**Benchmark 15:** The 15th benchmark is represented as the first course development benchmark, as outlined by IHEP (Phipps & Merisotis, 2000, p. 2), and states: “Guidelines regarding minimum standards are used for course development, design, and delivery, while learning outcomes—not the availability of existing technology—determine the technology being used to deliver course content.” The quantitative survey findings revealed a mean score of 3.74, and the majority (64%) of respondents gave an affirmative response of strongly agree or agree (see Table 2) that this benchmark characterized their program. The mean score of 3.74 and the majority of the survey sample agree that this benchmark is being met on most of the Adventist campuses studied.

In the qualitative phase of the study, the theme of quality control guidelines demonstrated an endorsement rate of 44.4% (see Table 30). The interviewees who talked about guidelines primarily discussed them in terms of their importance in producing high-quality distance education courses, but they did not state whether their institution actually utilizes guidelines to ensure minimum standards. King et al. (2000a) recognized that
there has traditionally been a focus by administrators and faculty on the development of high-quality distance education courses, due in large part, to the charge that distance education equaled low quality.

Sparrow (2002) found that faculty created course materials specifically for online teaching. The need for instructional technology that is driven by pedagogy is high on the list of faculty who currently teach in distance education (Chizmar & Williams, 2001). This should be an important consideration for administrators in the development of minimum standards and guidelines. Moore and Kearsley (2005) outline several institutional models of course design and development that may inform a broader policy development in this area.

Benchmark 16: The 16th benchmark represents the second course development benchmark (Phipps & Merisotis, 2000, p. 2) and states: “Instructional materials are reviewed periodically to ensure they meet program standards.” The survey results revealed a mean score of 3.62 and 54% of the sample provided an affirmative response; however, 45% did not provide an affirmative response of agree or strongly agree which suggests only modest evidence that this benchmark is being met in the majority of institutions studied. Interestingly, none of the participants in the qualitative interviews ever mentioned whether their teaching materials are reviewed periodically (see Table 2). Program administrators who have periodic instructional material reviews in place may want to share this with other Adventist distance education programs. Additionally, this benchmark, and all that it implies, may have some merit for traditional teaching and learning classrooms. Literature (Bates, 2000; Thompson & Irele, 2003) supports the importance of evaluation of instructional materials in distance education.
Benchmark 17: The final course development benchmark (Phipps & Merisotis, 2000, p. 2) states: “Courses are designed to require students to engage themselves in analysis, synthesis, and evaluation as part of their course and program requirements.” In the quantitative survey, the respondents seemed confident in this benchmark with a mean score of 4.14 and 76% (see Table 2) of the respondents answering that they strongly agreed or agreed. In the qualitative phase, 77% (see Table 29) of the participants endorsed the theme of curriculum development and design. The sentiment of the qualitative interviews was that curriculum development is a major element in facilitating the learning process and that this was more critical in distance education than in face-to-face courses. King et al. (2000a) recognized this sentiment and speculated that the focus on quality curriculum development is due, in large part, to critic charges that distance education is synonymous with low quality.

Teaching/learning benchmarks. The survey results demonstrated affirmative mean scores between 3.87 and 4.40 (see Table 3) for the teaching/learning benchmarks. In the qualitative phase of the study, the teaching/learning benchmarks had an overall intensity effect size of 16.3% (see Figure 6), which was the second highest effect size in the qualitative phase of the study. The interviewee’s discussion focused on the two areas of interactivity and community, and teaching theories and methods.

Benchmark 18: The 18th benchmark is represented as the first teaching/learning benchmark as described by IHEP (Phipps & Merisotis, 2000, p. 2) and states: “Student interaction with faculty and other students is an essential characteristic and is facilitated through a variety of ways, including voice-mail and/or email.” The quantitative survey results showed that 87% of the respondents strongly agreed or agreed that this benchmark
characterized their campus practices (see Table 3) with a mean score of 4.40 (see Table 3), the second highest in the survey. This finding should be a “warm fuzzy” for faculty and administrators as it illustrates institutional priority in assuring that interaction is happening between student and teacher and student to student. Moore and Kearsley (2005) suggest that effective teaching at a distance depends heavily upon faculty understanding of how to facilitate interaction with students through e-mail and other technologies. Sparrow (2002) found that faculty believed communication between student and instructor was the inherent quality of effective teaching in distance education.

In the qualitative phase of the study, the theme of interactivity and community demonstrated an endorsement rate of 55.6% (see Table 30). The interviewees who discussed this theme placed a high premium on interactivity between student and teacher and the building of community and interactivity between students. Several participants highlighted the difficulties inherent in communicating in a virtual environment, but also purported the advantages of having 100% student participation in online classes. Moore and Kearsley (2005) speak to this advantage of online teaching and learning.

Benchmark 19: This benchmark represents the second teaching/learning benchmark described by IHEP (Phipps & Merisotis, 2000, p. 2) and states: “Feedback to student assignments and questions is constructive and provided in a timely manner.” The survey results revealed a mean score of 4.25, and 81% of the sample provided an affirmative response (see Table 3). No doubt, the strong score on this benchmark is a direct reflection of the personal experiences and practices of the distance teachers who answered the survey. Qualitative interviewees did not specifically discuss the issue of timely and constructive feedback, most likely because it is not considered an area where...
there is lack of quality. Moore and Kearsley (2005, p. 140) assert that interaction with each and every student in the online classroom is an advantage over traditional face-to-face classrooms because the instructor can respond to the learner application of new knowledge almost immediately.

Benchmark 20: The final teaching/learning benchmark (Phipps & Merisotis, 2000, p. 3) states: "Students are instructed in the proper methods of effective research, including assessment of the validity of resources." In the quantitative survey, the respondents had a means score of 3.87, and 57% (see Table 3) of the respondents answered that they strongly agreed or agreed. The mean score above 3 and majority of the sample agreeing indicates that this benchmark is being met. The strong score on this benchmark again may be a reflection of the personal integrity and practices of good teachers rather than formal assessment measures. However, student assignments and course evaluations may also give the institution these data. Sparrow (2002) reports that faculty assume that students already possess the necessary skills to utilize the library for research and refer students to online library training materials and tutorials.

In the qualitative phase, none of the interviewees discussed the topic of effective research methods or the assessment of valid resources; however, an additional theme we called teaching theories and methods, emerged. Interviewees endorsed this theme at a rate of 77% (see Table 30) and views characterized ideas of student-centered learning and constructivism. Specific online pedagogy was not discussed; however, comments indicated that many had developed a different online pedagogy from what is being used in face-to-face classrooms. Current literature (Holmberg, 1989; Keegan, 1996; Moore & Kearsley, 2005; Wedemeyer, 1971) support theories of pedagogical differences in online
teaching. Additionally, interviewees evidenced sensitivity to non-traditional students and diverse learning styles and supported the use of multi-media to facilitate communication and learning. Several researchers (Howell et al., 2003; Sanchez & Gunawardena, 1998; Thompson, 1998) discuss the differences in gender, ethnic, and learning styles of the typical distance education student.

**Course structure benchmarks.** The survey results demonstrated affirmative mean scores between 3.43 and 4.49 (see Table 4) for the four course structure benchmarks. In the qualitative phase of the study, the course development benchmarks had a low intensity effect size of 1.7% (see Figure 6), and the interviewees spent little time discussing this benchmark.

Benchmark 21: The 21st benchmark, representing the first course structure benchmark (Phipps & Merisotis, 2000, p. 3), states: “Before starting an online program, students are advised about the program to determine (1) if they possess the self-motivation and commitment to learn at a distance and (2) if they have access to the minimal technology required by the course design.” The quantitative survey findings revealed that 44% of respondents gave an affirmative response of strongly agree or agree (see Table 4) that this benchmark characterized their program. The majority of the sample at 56% (see Table 4) did not provide an affirmative response, which indicates that this benchmark is below standard. In the qualitative interviews, participants only briefly discussed the issues of assessing for self-motivation and/or minimum technology requirements.

Perhaps this standard is not being met due to oversight or expectation that the teacher accomplish this before the distance education course starts. Laird (2004) believes
more attention should be paid to online institutional support structures for students and several researchers (Gellman-Danley & Fetzner, 1998; King et al. 2000a; Simonson & Bauck, 2003) clearly state that student training is part of that support. Students might be better served if formal institutional policies required that this type of training be done as a part of registration or orientation rather than leaving it up to individual teachers.

Sparrow’s (2002) research supports that this concept is not new and is already being done in many universities. Further, it should be noted that access to minimal technology by students may be hampered by the problem of digital divide (Moore & Kearsley, 2005); however, Bates (2000) suggests that institutions should think about how to assist students by putting in place policies and programs that help students purchase computers and access the Internet.

Benchmark 22: The 22nd benchmark represents the second course structure benchmark described by IHEP (Phipps & Merisotis, 2000, p. 3) and states: “Students are provided with supplemental course information that outlines course objectives, concepts and ideas, and learning outcomes for each course are summarized in a clearly written, straightforward statement.” The survey results revealed a mean score of 4.49—the highest mean score in the survey—and 80% of the sample provided an affirmative response (see Table 4) clearly signaling that this is a quality benchmark in Adventist colleges and universities studied. Only one interviewee made any kind of comment about course information and stated that Internet-based distance education “forces you to be extremely clear.” No doubt clear and widely understood standards of syllabus preparation already exist in institutions and have been transferred readily to the distance
learning environment (Simonson & Bauck, 2003), which would help account for the high scores in this area.

Benchmark 23: The 23rd benchmark represents the third course structure benchmark (Phipps & Merisotis, 2000, p. 3) and states: “Students have access to sufficient library resources that may include a ‘virtual library’ accessible through the World Wide Web.” The survey results revealed a mean score of 4.28 and 86% of the sample provided an affirmative response (see Table 4), an indication that this benchmark has been met. The participants in the qualitative interviews did not discuss library resources, which, along with the high scores in this area, may be an indication that this is not a serious problem on campuses. It could also be that this function is being addressed through campus libraries. Faculty in Sparrow’s (2002) study reported that their university libraries did an excellent job in assisting students and did not feel that creating access was a necessary function of course materials. Foster et al. (2002) provide in-depth information on guidelines for distance learning library services that may be of interest to administrators and teachers.

Benchmark 24: The final course structure benchmark (Phipps & Merisotis, 2000, p. 3) states: “Faculty and students agree upon expectations regarding times for student assignment completion and faculty response.” In the quantitative survey, the respondents revealed a means score of 4.07 and 55% (see Table 4) of the respondents answering that they strongly agreed or agreed, indicating that this benchmark has been met.

In the qualitative phase, only 22.2% (see Table 26) of the participants endorsed the theme of course structure. One participant did discuss the issue of time expectations within the context of unpleasant past experiences with students turning in assignments
late and poor course completion rates. One other participant highlighted her program’s practices of being very clear about time expectations with assignments and communication. Simonson and Bauck (2003) suggest that general student policies that already exist in institutions, such as when assignments are due, would only need to be modified slightly to be of service to distance education students. Course materials and assignments, test proctoring, and library access are all policy areas that affect distance education students and should be addressed within institutions (Gellman-Danley & Fetzner, 1998; King et al., 2000a).

Question 2—Other Issues

This section discusses the findings related to research question 2: What other issues are identified that are important to administrators regarding Internet-based education? In addition, these findings are discussed as they relate to hypothesis 2 through 6.

The identified issues—future distance education plans, importance of Internet-based distance education, administrator/teacher differences in importance, benchmark perceptions by experience and position, role identification by position, teaching compensation, additional qualitative themes and unexpected findings—will be reviewed and the data from the quantitative and qualitative analyses will be compared.

Future Distance Education Plans

The survey results found that 77% (see Figure 2) of the sample stated that their institution planned to increase online distance education over the next 3 years. This finding is consistent with recent research by Wilson (2001). The qualitative interviewees’
comments also concurred and were characterized by a future orientation and the need to see the ongoing potential for Internet-based distance education on their campuses. Experts (Barone, 2001; Dunn, 2001; Moore & Kearsley, 2005; Reddy & Goodman, 2001; Smith, 2004) agree that higher education is being transformed by technology. Eighty-five percent of public colleges, 54% of private colleges, and 36% of private 4-year colleges were offering Internet-based distance education in the year 2000 (Moore & Kearsley, 2005). This number will continue to grow as colleges and universities discover additional ways to use technology in order to respond to student demand for richer, more flexible learning environments (Ayers & Grisham, 2003; Barone, 2001; Smith, 2004).

This finding indicates that Adventist higher education has seen the handwriting on the wall and is actively moving in the direction of distance education programming to facilitate educational access for more students. Qualitative interviews made it clear that one size does not fit all with regard to use of instructional technology in teaching and learning. Paradigms of online learning such as collaborative e-learning partnerships, Bates’s (2000) "lone ranger" model, and distance education administrative support centers are already being utilized on Adventist campuses. Literature concurs that technology should not drive an organization beyond its capabilities (Barone, 2001; Bates, 2000; Gumport & Chun, 2002); however, administrators must actively develop policies and practices of technology and distance education that fit with the institution’s mission, culture, and values (Barone, 2001; Bates, 2000, Moore & Kearsley, 2005).

**Importance of Internet-based Distance Education**

The survey findings indicated that only 54% (see Figure 3) of the sample found Internet-based distance education to be very important to their school’s future success.
This is a curious finding, especially as it relates to the findings that most institutions plan to increase future distance education programming on campus and the expressed concern of qualitative interviewees regarding lost opportunities for students and financial viability if their schools do not capitalize on distance education.

Perhaps this finding reflects the internal beliefs of some that traditional education should not or will not be changed as dramatically by technology as some think. Current literature (Ayers & Grisham, 2003; Levine, 2000) appears to support the idea that there remains a place for traditional education in the digital age. However, even these authors caution that institutions cannot take lightly the importance of instructional technology and urge administrators to consider how available technologies can improve learning environments for students. Rather than think about distance education and traditional education as an either/or, it may be more useful to consider how technology can be used in both venues to enhance learning for students. Finally, higher education providers are becoming more numerous, and in the future students will be able to choose from a multitude of knowledge providers anywhere and anytime (Barone, 2001; Levine, 2000), making competition for students even more difficult.

Administrators’ and teachers’ differences in importance. Hypothesis 6 dealt with differences in the perceptions of administrators and faculty on the importance of Internet-based distance education. It was determined that the null hypotheses could not be rejected in response to hypothesis 6, “There is no difference between administrator and faculty perceptions regarding the importance of Internet-based distance education to the future success of their institutions.” Current literature (Havice et al. 2002; Lee, 2002; Wilson, 2002) suggests that administrators tend to be more positive and optimistic about
distance education than are faculty. Wilson (2002) also found that the biggest motivator for administrators in providing distance education options was related to student satisfaction. Administrator optimism and need for student satisfaction, however, do not necessarily translate to administrators giving priority to distance education as an integral part of the success of the institution. This finding may be more about the feeling among both faculty and administrators that traditional education will always be the mainstay (Ayers & Grisham, 2003) or that traditional residential Adventist education is that niche market of which Dunn (2001) predicts that will continue to be successful.

Administrators’ and Teachers’ Benchmark Perceptions

Hypotheses 3 dealt with differences in the perceptions of administrators and faculty on the IHEP benchmarks. It was determined that the null hypotheses could not be rejected in response to hypothesis 3, “There is no difference between administrator and faculty perceptions on IHEP benchmarks.” No other studies could be located that discuss differences in perceptions of administrators and faculty on IHEP benchmarks; however several (Havice et al. 2002; Lee, 2002; Wilson; 2002) discuss perception and attitudes of faculty and administrators with regard to distance education.

Benchmark Perceptions by Experience and Position

In response to hypothesis 2 that there is no difference between the levels of experience and administrators/faculty perceptions on the IHEP benchmarks, a statistically significant difference was found on the course development benchmarks. When accounting for the dual effect of both experience (number of years in higher education) and the positions of either administrator or teacher, there was an interesting inverse
relationship (see Table 17 and Figure 4) on course development benchmarks. Teachers with the least experience (1-10 years) and administrators with the most experience (21+ years) had mean scores that were more favorable on the course development benchmarks, whereas teachers with the most experience and administrators with the least experience had the least favorable mean scores. Interestingly, teachers and administrators with 11-20 years of experience had almost identical mean scores. It seems that the novice teacher and sage administrator share a brighter outlook on the course development, while the sage teacher and the novice administrator remain a bit more skeptical. The qualitative interviews did not expand on this finding.

Lee (2002) found that faculty perceived the workload of course development and teaching in distance education to be greater than traditional face-to-face classrooms. Perhaps the more sage teacher draws from his or her experiences in traditional ways of delivering courses and, coupled with the fear of technology, decide that course development in distance education is too much work. In addition, traditional faculty roles are shifting or “unbundling” (Howell et al., 2003), and it may be that younger faculty and older administrators are more naturally open to this change. There is some fascinating research that may be applicable here by Bennis and Thomas, (2002). Specifically, they look younger leaders (under 35) and older leaders (over 70), that push limits, yet continue to be adaptive, optimistic, and able to make meaning of events for others (Bennis & Thomas, 2002).

**Role Identification by Position**

In response to hypothesis 4, “There is no difference between administrator and faculty perceptions regarding their roles in visioning, strategic planning, and policy-
making," it was found that the vast majority of the teachers surveyed did not see themselves in the roles of distance education visioning, strategic planning, and policy-making by 72%, 78%, and 76% respectively (see Tables 10, 11, & 12). This makes sense in light of the fact that for faculty these have not been traditional faculty roles. Conversely, it was surprising to find how many administrators also did not see themselves in the same roles, with 31% (see Table 10) not identifying with the role of visioning, 41% (see Table 11) not identifying with the role of strategic planning, and 37% (see Table 12) not identifying with the role of policy-making. This narrow vision of role by some may be a result of the conserver preference of leadership as discussed by Musslewhite (2003), which is characterized by managing details and facts rather than focusing on the big picture or it simply could be the result of administrator delegation of distance education planning to a specific person or department.

Although the study did not intentionally seek to identify the views of mid-level administrators, it was possible to identify via survey responses a unique hybrid of administrators who also had online teaching experience that were classified as administrator and teachers. More often than not, these individuals were deans, chairpersons, and directors who also taught web-based courses. When including their perceptions regarding role identification, the study found that a higher percentage of administrator and teachers identified with the roles of visioning, strategic planning, and policy-making than upper-level administrators did in all three categories (see Tables 13, 14, & 15). This finding is quite fascinating and may have to do with the reality that visionary leaders are not only at the top of institutions, but within the core as well (Johnson et al., 2003).
The qualitative results found that 6 of the 9 identified experts were administrator/teachers. Their stories reveal tales of pioneering online distance education in their departments despite the lack of support and commitment from upper-level administration. Finding so many administrator/teachers among the experts may allow us to conclude that deans, chairpersons, and directors are indeed among the campus change agents (Johnson et al. 2003).

Teaching Compensation

Hypothesis 5 regarding faculty compensation was developed with an intuitive sense that compensation and the ability to moonlight for other schools was a significant issue in distance education. The quantitative data did show that the majority of faculty at 62% (see Table 18) who were not compensated additionally for their online teaching either had been moonlighting or had considered moonlighting versus 49% (see Table 18) of the faculty who were paid additionally for their online classes. The qualitative findings revealed significant discussion on the issues of remuneration and faculty loading; however the concern seemed more in terms of the desire to have more time via loading than actual compensation. This sentiment is supported by research in which faculty ranked lack of time as a barrier to teaching online as the number one impediment to distance education (Bulter & Sellbom, 2002; Dickenson et al., 1999; Wilson, 2001).

Several researchers (Chizmar & Williams, 2001; Mechanic, 2001; Wolcott, 2003) found that distance education is still not highly valued or rewarded as worthy scholarship on many campuses. As a result, Wolcott (2003) asserts that faculty are disproportionately compensated for course development and teaching in distance education. Other studies (Lee, 2002; Wilson, 2001) revealed that recognition, both

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monetary and intrinsic, such as release time or rank and tenure credit, was important to faculty. One could speculate that, if reward issues around distance classes are not addressed, the outcomes could be increased moonlighting among faculty, resulting in loss of teaching capacity in the institution and/or loss of faculty to large-scale distance education institutions.

**Additional Qualitative Themes**

Additionally, three qualitative themes emerged beyond the *a priori* benchmarks categories. These themes were: prevailing attitudes in distance education, collaboration, and qualities of the expert.

**Prevailing attitudes.** Prevailing attitudes in distance education represented two categories we called “brick and mortar” and “brick and click” mentalities. These attitudes demonstrate two educational paradigms of current thinking (Levine, 2000). Brick and mortar attitudes tend to be the more teacher-centered, face-to-face model viewed by proponents as the more superior method of course delivery. Brick and click demonstrates a non-traditional, student-centered approach to education that promotes the use of technology in higher education. Qualitative interviews portrayed these two categories vividly, often using battle metaphors and adjectives to describe the phenomenon of contrasting attitudes on their campuses. The sentiments within these two diverse themes mirror the ongoing debates in distance education put forth by several in the field today (Gumport & Chun, 2002; Noble, 1998). Additionally, Moore (2002) appears to be descriptive of the attitude and perceptions in these two categories.
Collaboration. The theme of collaboration highlighted barriers that were a result of institutional competition and numerous opportunities available for collaboration between institutions. Student-to-student collaboration on course projects was hinted at in the teaching and learning benchmarks as it related to student interactivity within the course, and at least one participant discussed the Adventist collaborative effort of the Adventist Distance Education Consortium. Thach and Murphy’s (1994) research on collaboration continuums references student-to-student collaborations, class-to-class collaborations, and institution-to-institution collaborations. Current trends in higher education suggest that it will be necessary for institutions to create partnerships and collaborations with other colleges, universities, and companies to share technology and distance education (Barone, 2003; Daniel, 1999; Howell et al., 2003).

Collaborative ventures among Adventist colleges and universities may create opportunities to share costs and provide assistance in effective ways to deliver information services and online education. As Balistri (2000) suggests, these types of collaborations are just as important to traditional residential colleges and universities as they are to those who exclusively provide distance education. Partnerships, such as ADEC, which are already in place within Adventist education, should provide continued leadership and innovation in collaborative ventures. Several innovative models (Cannata et al., 2002; Carnvale, 2000; Dahl, 2004; Skerik, et al., 2000; Ringle, 2004) of collaboration are accessible for administrator consideration.

Qualities of the expert. Lastly, the theme of qualities of the expert revealed a detailed composite of qualities that describe individuals who are risk-takers, early adopters, technologically competent, passionate, helper/mentors, and enthusiastic about
the potential of educational technology. The synthesis of these qualities reflects well the attributes of the innovator and early adopters described in Moore's (2002) model and may provide organizations with a view of individual talents needed to lead distance education change. It should be noted again that these qualities are self-descriptors of the 9 experts who were interviewed in the qualitative phase of this study. These 9 individuals are already leading the charge on Adventist campuses for use of instructional technology in traditional classes as well as those at a distance.

**Unexpected Findings**

Although this study was not gender focused, an unexpected finding was made in the differences in perceptions on the IHEP benchmarks between men and women. All of the benchmark means scores were higher (see Table 23) for women, indicating more favorable responses from women than men. Statistical significance was found on the basis of gender for the benchmarks of course development, teaching/learning, course structure, student support, and evaluation and assessment (see Table 23). The reasons for this finding are unclear and may be complex. For instance, it has been documented that adoption of technology is considered a masculine trait (Schumacher & Morahan-Martin, 2001) and some speculate that the need to compensate for being female in a male-dominated field may be why some women are more open to technology and online teaching (Lucas, 2003). In addition, since online education is new in the Adventist institutions, it may be as Berge (1998) suggests, that high affirmation and involvement of women in the early development of technologies is normal. Whatever the reasons, this finding certainly warrants more research.
Discussion

Overarching questions in this study were concerned with the quality of Internet-based distance education in Adventist institutions overall and issues identified that would be of concern and help to higher education administrators with regard to Internet-based distance education. Quantitative results indicate that administrator perceptions of Internet-based distance education on their campuses meet the benchmarks for quality in most areas. However, when qualitative findings were integrated with quantitative results, implications for administrators pointed to lack of attention in areas such as distance education strategic planning, design and delivery of online distance education, evaluation and assessment and the ongoing support of distance education faculty and students.

The systems view of distance education as proposed by Moore and Kearsley (2005) describe policy and management structures, course development and delivery, and systems that monitor and provide ongoing evaluation, as essential individual components of the larger distance education system. Each component is first a system individually that links to the larger system of the whole of distance education and when something happens in one part of the distance education system, it will obviously impact other parts of the system (Moore & Kearsley, 2005). When study findings are viewed through this theoretical lens of systems view of distance education, Adventist colleges and universities appear to be a collection of individual systems that are impacted by the infirmity of several individual system components.

The management component, outlined by Moore & Kearsley (2005) in the systems model, has the most implications for administrators. Lack of commitment to focused strategic and financial planning for distance education and use of technology in
Adventist higher education appears minimal. Strategic plans that address all system components (Moore & Kearsley, 2005, p. 11) for technology infrastructure and teaching with technology should be in place on every Adventist campus. Even if individual institutions do not wish to pursue Internet-based distance education, institutional strategic plans must consider and address goals and objectives for technology instruction in traditional classrooms and the growing technological infrastructure.

If Adventist higher education institutions would make a commitment to system-wide technology and distance education planning this would impact significantly the middling health of individual system components found currently in the institutions studied. This concerted effort may also influence positively the efforts of the collective Adventist higher distance education system and provide individual colleges and universities with needed knowledge and insight for participating in future partnerships and collaborative ventures.

There are some signs that a few, upper level administrators have initiated system-wide technology and distance education strategic planning on their campuses, however, the majority of Adventist higher education leaders appear to still view this type of planning with benevolent indifference. This finding should cause some unease among administrators because instructional technology and Internet-based distance education already exist in some form, on most, if not all, Adventist campuses. Most administrators and faculty recognize that technology is impacting their institutions by simply by indicating they plan to increase distance education offerings on their campuses in the next 3 years. Clear and appropriate strategic and financial planning that addresses instructional technology and infrastructure goals and objectives within the scope of
individual institutional missions is even more vital in light of that finding. Current
literature (Phipps & Wellman, 2001; Pisel, 2001; Smith, 2002; Spicer & DeBlois, 2004)
supports and recommends that intentional strategic planning and financial planning in
educational technology be done in all 21rst century higher education institutions.

This type of intentional strategic planning will not only impact the greater system
of collaborative distance education within Adventist higher education, it will also bring
into focus other institutional system components (Moore & Kearsley, 2005) and models
of distance education organizations that also need consideration from administrators.
Most institutions in this study appear to be traditional, face-to-face establishments
operating under an individual teacher or “lone ranger” model of distance education
organization (Bates, 2000, p. 60; Moore & Kearsley, 2005). This organizational model
provides distance education through the efforts of individual teachers with minimal
systems in place to support their efforts and usually produces high rates of faculty
burnout rather than long-term sustainability of active distance education programs.
Institutions may need to consider moving to different distance educational organizational
frameworks, such as dual-mode or commissioning model (Moore & Kearsley, 2005), that
will provide more support to faculty.

It is clear from this study that Internet-based distance education is happening with
some quality within the organizational frameworks of Adventist campuses. Most often,
this appears to be due to the efforts of individual deans, chairs, directors and/or faculty
within each institution who utilize the “lone ranger” model (Bates, 2000) of organization
as described above. It was a surprising find from the survey that mid-level administrators
(deans, chairs, and directors) reported feeling they have a greater role in visioning,
strategic planning, and policy-making for Internet-based distance education than did upper level administrators. This trend is noteworthy and may have to do with the reality that deans and chairs tend to be described as some of the most innovative and inspirational leaders on higher education campuses today (Johnson et al., 2003).

Upper administrators who did not feel that the roles of visioning, strategic planning and policy were a part of their job descriptions may think that they are released from this responsibility simply because they delegated distance education to a specific department or person. In addition, some leaders may have a leadership change style that reflects Musselwhite's (2003) description of "conservers" (p. 57). Conserver leaders tend to focus on detail and are interested and more comfortable in working within existing structures rather than being out-of-the-box thinkers that characterize more visionary leaders (Musselwhite, 2003). These leaders are important in institutions in maintaining organizational structure and continuity, so it is important to understand that this description is not a demeaning characterization. However, this leadership approach and the delegating of distance education to someone else, may explain, in part, the indifference or lack of importance that some upper level administrators place on visioning and planning for technology and distance education.

Another system component of management addressed in distance education system theory includes policies and procedures (Moore & Kearsely, 2005). Findings in this study suggest that distance education policies are minimal on Adventist campuses. This was evidenced by both the quantitative and qualitative portions of the study through benchmark quality and emerging concerns of interviewees on issues such as faculty loading and remuneration; faculty support, training, and mentoring; student support and
training, including technical support and training of students in electronic research methods; and ongoing evaluation and assessment. These areas of concerns are supported by literature as valid categories of policy development (King, et al., 2000a) that will lead to greater health for the entire system.

Faculty and staff who are already teaching online, creating courses, or supporting other faculty efforts with their knowledge of technology are active individual change agents within the institution. They face challenges from colleagues as well as students as they integrate technology into teaching practices. It is important to note that rather than viewing Internet-based distance education as replacing traditional education, these deans, chairs, and teachers see it as another tool to enhance teaching and learning. As noted above, administrators can support faculty by intentional strategic planning that addresses policies for minimum standards for course development, delivery and design, address faculty loading and/or compensation for online distance teaching, provide training for faculty in understanding online pedagogical and assessment methods, and assist them in using the appropriate technology needed for classes they teach.

In addition, students also require hands-on training and technical support for course management software when taking online classes. If this type of support is available for students on Adventist campuses, it appears to be minimal at best. In most institutions student support is the responsibility of the teacher or a lone technical support person who is assigned to take calls from distance students after the course has started. Information regarding how to access electronic databases of all types as well as material about admissions, fees, and the technical requirements for taking online classes should also be current and available. There are currently innovative, collaborative models of
student-services support being practiced that may be useful to Adventist colleges and universities in planning for student support (WCET, 2003).

Assessment and evaluation is another individual system component that affect the overall system of distance education. Findings in this study were not conclusive but do point to lack of knowledge on campus about this activity. Thompson & Irele (2003) indicate that evaluation of distance education is not much different than other educational activities in that evaluation is usually inadequately planned and more a postscript rather than an important part in the planning process. As accreditation requirements on many campuses force a new look at evaluation and assessment, perhaps it would be timely to ensure that benchmarks, standards, and methods are developed for distance education that are in keeping with the best practices in the field.

This overall unassuming approach to Internet-based education on Adventist campuses may be a result of "paradigm paralysis" or the inability for system adjustment or change even to the eventual detriment of the organization (Barker, 1993; Kuhn, 1962). As long as institutions continue to view delivery of Internet-based education in traditional ways, students and faculty trying to teach and learn in those environments will not be served well.

In light of the many challenges described above, collaborative ventures or partnerships may well one of the new paradigms to provide cost-effective technology and educational services to students accessing Adventist universities and colleges.

"Partnerships allow organizations to share risk, take advantage of one another's strengths and expertise, pool resources, and spark creativity. Given the complexities of a large-scale distributed education program, few institutions will make significant enrollment gains by going it alone" (Katz, et al., p. 17).
Balistri (2000) believes that collaboration is not limited to those whose mission is only distance education and states “these collaborations are just as critical for those of us who remain committed to residential teaching and learning as for those who find and serve their students at a distance” (p. 63).

Finally, the on-going challenge for institutions and administrators in regards to Internet-based education and other instructional technologies may be in the understanding and embracing of these new paradigms. The secret to understanding and embracing change in educational design and delivery may simply be about focused dialogue and planning, and letting old paradigms inform, but not disable, the new.

**Recommendations**

Based upon study findings and discussion, the following recommendations for practice and research are offered:

**Recommendations for Practice**

1. Administrators in Adventist institution of higher education should consider how existing and future technological infrastructures and instructional technology programming tie to current institutional vision and mission. Clear and appropriate strategic planning that address the known system components of distance education (Moore & Kearsley, 2005), and instructional technology is vital as organizations will need to continue to justify the already large investments in technology infrastructures and support systems (Bates, 2000). Different organizational frameworks, such as dual-mode or commissioning models (Moore & Kearsley, 2005), may need to be considered by
administrators in order to be more consistent with goals and objectives outlined during the planning process.

2. Distance education policies and procedures that address categories outlined in King, et al. (2000) *Policy Analysis Framework* should be developed and adopted. Particular focus should be made in the following areas:

   a. Faculty Remuneration: Faculty loading and remuneration policies and other reward systems that account for the added time demands of online course development and teaching, and the scholarly contribution these activities produce on campus.

   b. Faculty Support: Support and training policies and practices for faculty who are making the transition from classroom teaching to Internet-based teaching is fundamental. Faculty need mentorship from experienced web-based teachers in addition to technical and pedagogical assistance in order to succeed in online distance teaching.

   c. Student Support: Student support policies for online education services should be developed that are simple and flexible and allow students access during odd times when they are studying online. Often, current policies for traditional student support will translate easily to needs of distance education student with minimal system adjustment. Additionally, programs or policies that would actively help reduce the phenomenon known as the digital divide (Moore & Kearsley, 2005), would be valuable.

   d. Evaluation and Assessment: As accreditation requirements on many Adventist campuses force a new look at evaluation and assessment, it would be timely to
ensure that benchmarks, standards, and best practices are developed for ongoing 
assessment of instructional technology and distance education.

3. Developed policies and procedures for instructional technologies and distance 
online education should be made available to faculty and students.

4. A continued development of already existing collaborative ventures within 
individual institutions and within the Adventist system is required, in addition to the 
exploration of new partnerships that may help to further reduce costs in providing 
technology support and distance education programming.

Recommendations for Research

1. The Institute for Higher Education Policy benchmarks for quality Internet-
based education survey should be tested further for validity and reliability. Many 
questions appear to be double-barreled and respondents were not sure which part of the 
question they should answer. The results from this study also indicate that a strategic 
plan that addresses both instructional technology and the technological infrastructure 
might be a better indicator of quality Internet-based distance education rather than 
presence of a non-defined technology plan as is suggested in benchmark item #1.

2. An assessment of administrator, faculty, and student needs and attitudes on 
Adventists campuses regarding teaching and learning with technology would be very 
timely.

3. Additional research is needed to measure the influence of Adventist dean/chairs 
on Internet-based education and the use of instructional technology within specific 
departments.
4. Research that explores the presence of Moore and Kearsley’s (2005) system components of distance education within schools of higher education would provide another measure of distance education quality.

5. Further examination of the leadership styles, qualities, and/or personalities of those who adopt new technologies and teach online would be interesting.

6. Further research is needed to understand the unexpected findings of gender differences that exist in the perceptions of quality Internet-based distance education IHEP benchmarks.

7. Research that explores existing distance education policies within Adventist higher education utilizing King et.al (2000 a,b) three-tiered or seven-tiered Policy Analysis Framework would be timely and appropriate.

8. Finally, exploratory research on successful collaborative models or ventures between students, classes, and/or institutions would be useful to the larger system of collective Adventist colleges and universities.

Conclusion

Providing some clarity in how Internet-based distance education is being offered on Adventist campuses has been the goal of this study. To that end, many parts of the whole system of distance education on Adventist campuses have been examined including learning, teaching, communication, course design, history, and theoretical constructs (Moore & Kearsley, 2005). As a result, the strengths and weaknesses of the collective systems and implications for Internet-based distance education in Adventist institutions have been discussed. It is anticipated that the study will serve as a medium to increase awareness about the need for intentional strategic planning for technology and
distance education and increase the dialogue about why Internet-based education may be important to the collaborative mission of Adventist institutions of higher education.
Electronic Survey
Benchmarks for Quality Internet-based Distance Education

I. Participant Agreement and Purpose

Participant Agreement: As this is an online survey, completing and returning the survey will constitute your consent to participate in this research study. Your participation is voluntary and individual and institutional confidentiality will be assured in the analysis and reporting of all data. There are no known risks for participating in this study.

Purpose: The purpose of this survey is to provide better understanding of the status of Internet-based distance education in Seventh-day Adventist colleges and universities in the North American Division. It is our belief that the results of this study will be important and timely to SDA higher education. Questions have been adapted from research done by The Institute for Higher Education Policy (2000) and are being used with permission.

Definition: This survey focuses solely on distance education delivered via the Internet. Online or Internet-based distance education is defined as any course where the primary means of delivery of course instruction and materials are through the use of the Internet.

II. Instructions and Benchmarks

Instructions: Rate the extent to which the following descriptions are characteristic of your institution’s Internet-based distance education practices. If you do not have sufficient knowledge or experience relating to a statement, please check the box “I don’t know”. This survey should take approximately 10-15 minutes to complete. Thank you for being a part of our research.

<table>
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<tr>
<th>Institutional Support Benchmarks</th>
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<th>Neutral</th>
<th>Strongly Agree</th>
<th>I don’t Know</th>
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<tr>
<td>1. A documented technology plan that includes electronic security measures (i.e. password protection, encryption, back-up systems) is in place and operational to ensure both quality standards and the integrity and validity of information.</td>
<td>1</td>
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<td>2. The reliability of the technology delivery system is as failsafe as possible.</td>
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<td>3. A centralized system provides support for building and maintaining the distance education infrastructure.</td>
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### Course Development Benchmarks

4. Guidelines regarding minimum standards are used for course development, design, and delivery, while learning outcomes—not the availability of existing technology—determine the technology being used to deliver course content.

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<thead>
<tr>
<th>Strongly Disagree</th>
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<th>Strongly Agree</th>
<th>I don't Know</th>
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<tr>
<td>1</td>
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5. Instructional materials are reviewed periodically to ensure they meet program standards.

6. Courses are designed to require students to engage themselves in analysis, synthesis, and evaluation as part of their course and program requirements.

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<tr>
<th>Strongly Disagree</th>
<th>Neutral</th>
<th>Strongly Agree</th>
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### Teaching/Learning Benchmarks

7. Student interaction with faculty and other students is an essential characteristic and is facilitated through a variety of ways, including voice-mail and/or e-mail.

8. Feedback to student assignments and questions is constructive and provided in a timely manner.

9. Students are instructed in the proper methods of effective research, including assessment of the validity of resources.

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<th>Strongly Disagree</th>
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### Course Structure Benchmarks

10. Before starting an online program, students are advised about the program to determine (1) if they possess the self-motivation and commitment to learn at a distance and (2) if they have access to the minimal technology required by the course design.

11. Students are provided with supplemental course information that outlines course objectives, concepts, and ideas, and learning outcomes for each course are summarized in a clearly written, straightforward statement.

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<th>Strongly Disagree</th>
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12. Students have access to sufficient library resources that may include a “virtual library” accessible through the World Wide Web.

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<th>Strongly Disagree</th>
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13. Faculty and students agree upon expectations regarding times for student assignment completion and faculty response.

Student Support Benchmarks
14. Students receive information about programs, including admissions requirements, tuition, and fees, books and supplies, technical and proctoring requirements, and student support services.

15. Students are provided with hands-on training and information to aid them in securing material through electronic databases, interlibrary loans, government archives, news services, and other resources.

16. Throughout the duration of the course/program, students have access to technical assistance, including detailed instructions regarding electronic use, practice sessions prior to the beginning of the course, and convenient access to technical support staff.

17. Questions directed to student services personnel are answered accurately and quickly, with a structured system in place to address student complaints.

Faculty Support Benchmarks
18. Technical assistance in course development is available to faculty, who are encouraged to use it.

19. Faculty members are assisted in the transition from classroom teaching to online instruction and are assessed during the process.

20. Instructor training and assistance, including peer mentoring, continues through the progression of the online course.

21. Faculty members are provided with written resources to deal with issues arising from student use of electronically-accessed data.
Evaluation and Assessment Benchmarks

22. The program’s educational effectiveness and teaching/learning process is assessed through an evaluation process that uses several methods and applies specific standards.

23. Data on enrollment, costs, and successful/innovative uses of technology are used to evaluate program effectiveness.

24. Intended learning outcomes are reviewed regularly to ensure clarity, utility, and appropriateness.

III. Demographic Information

25. Institution name: (drop down box with 9 institutions listed)

26. Current Position: (choose as many as apply) President, Vice-President - Academic, Vice-President - Enrollment, Vice-President-Financial, Distance Education Director, Information Technology Administrator, ADEC Representative, Department Chair/Dean of School, Professor, Associate Professor, Assistant Professor, Instructor, Adjunct faculty, Facilitator, Other (please specify)

27. Highest degree completed: (check box) Doctoral, Masters, Bachelors

28. Number of years in Higher Education: (drop down box) 1 - 5, 6-10, 11-15, 16-20, 21-25, 26-30, 30+

29. Gender: male/female

30. Number of Internet-based courses offered by your institution: (check box) 1 - 5, 6-10, 11-15, 16-20, 21-25, 26-30, 30+

31. Do you offer degree programs that are entirely Internet-based? (check box) Yes, No, Not sure. If Yes, which degree(s) are offered:

32. In which discipline(s) have you taught an Internet-based course(s)? (check box) *I have not taught an Internet-based course. I have taught an internet based course in the following discipline(s):
   ______________________________

*If you have not taught an internet based course, please go to question 35.

33. Do you receive additional pay to teach an online course(s). (check box) Yes, No

34. Have you considered teaching online courses for any institution other than the one in which you are currently employed? (check box). Yes, I currently teach for another school. Yes, I have considered teaching for another school. No.

35. What has been your role(s) in regard to the provision of Internet-based distance education at your institution? (Check as many as apply) Course, design, Teacher/Facilitator,
36. Which Internet-based course management system does your institution use? (check boxes) WebCT, BlackBoard, Currently have no system, Not sure, Other (please specify) ____________________.

37. What are your institution’s plans over the next three years regarding Internet-based courses and programs? (Check box) Increase, Decrease, Stay the Same, Don’t Know.

38. How important do you think Internet-based education is for the future success of your institution? (5 point scale) Not important, Slightly important, Important, Somewhat important, Very Important.

39. Please identify an individual(s) on your campus who you would consider an expert in Internet-based distance education. ____________________________

40. Additional comments you might wish to share. (Optional). __________________________

Thank you for completing this survey. If you have further questions, please contact us or the Chair of our Dissertation Committee.

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E-mail: freed@andrews.edu
Qualitative Interview Protocol

Participants in the qualitative interviews will be selected from the pool of experts identified from the IHEP benchmark survey that asks research participants to identify 1 distance education expert on their campus. One expert from each campus will be interviewed to obtain qualitative data relating to emerging themes and stories of Internet-based education. In order to create a pool of 11 experts representing each of the 11 institutions the expert most frequently identified on each campus will be selected for the qualitative interview. Participants for the qualitative survey will be interviewed in telephone interviews. The interviews will be audio taped and transcribed for analysis. Qualitative interviews will be assigned numbers upon their receipt and names will not be used.

Qualitative interview questions will expand upon the survey data in the quantitative phase of the study. Preliminary questions in the narrative inquiry will focus on the boundaries of time: past, present, and future (Clandinin & Connelly, 2000). These questions are: How did you get into the business of Internet-based distance education? Why are you presently involved? What are the most pressing issues for the future of Internet-based distance education? Additional questions may be developed following the analysis of the quantitative data and will relate to extreme or outlier cases. Each participant in this portion of the study will be asked the same questions. Qualitative interview questions will expand upon the survey data in the quantitative phase of the study. Specific questions will be developed following the analysis of the quantitative data and will relate to benchmarks, extreme or outlier cases, and institutional and instructional stories of distance education.
APPENDIX B

INFORMED CONSENT
TITLE OF STUDY: Internet-based Distance Education in Seventh-day Adventist Higher Education: An Administrative and Instructional Perspective
Pamela Keele Cress, MSW and Susan Brown Smith, MSW.

PURPOSE: The purpose of this collaborative study is to determine a) to what extent the North American Division (NAD) Seventh-day Adventist (SDA) colleges and universities meet benchmarks for quality Internet-based distance education; b) what administrator and teacher perceptions and experiences are regarding Internet-based teaching and learning, course development and structure, institutional, faculty and student support, and evaluation and assessment; c) how institutional and instructional benchmarks for quality are being demonstrated.

INCLUSION CRITERIA: I understand that in order for me to participate in this study I must be currently employed 1) as an administrator in one of the following positions: President, Vice-President for Academic Affairs, Finance, and Enrollment, Directors of Information Technology, Academic Computing, and Distance Education, and Adventist Distance Learning Consortium (ADEC) representative and/or 2) a faculty member with teaching experience in Internet-based distance education.

PROCEDURE: I understand that I will be asked to complete a 10-15 minute online survey regarding Internet-based education in my institution.

CONFIDENTIALITY: I understand that once my survey is received by researchers my name will be removed as an identifier and will be assigned a number. Once this number is assigned, I understand that my name will no longer be used to identify survey responses.

RISKS: I understand that there are no known risks for participating in this study.

BENEFIT/RESULTS: I understand that I may not receive any direct benefits from participating in this study. I understand that the results may enhance information regarding Internet-based education in NAD SDA colleges/universities. I understand that the information collected during this study will be included in two Doctoral Dissertations and may be presented or published in professional meetings and journals.

VOLUNTARY PARTICIPATION: I understand that my participation in this study is voluntary. I understand that I may discontinue my participation in this study at any time without penalty or prejudice. I also understand that there is no compensation in return for my participation.
PARTICIPANT AGREEMENT: As this is an online survey, completing and returning the survey will constitute your consent to participate in this study. If you have additional questions about informed consent or this survey, please contact the researchers at:

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PURPOSE: The purpose of this collaborative study is to determine a) to what extent the participating North American Division (NAD) Seventh-day Adventist (SDA) colleges and universities meet benchmarks for quality Internet-based distance education; b) what administrator and teacher perceptions and experiences are regarding Internet-based teaching and learning, course development and structure, institutional, faculty and student support, and evaluation and assessment; c) how institutional and instructional benchmarks for quality are being demonstrated.

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PROCEDURE: I understand that I will be asked to complete a 1 – 2 hour telephone interview regarding Internet-based education in my institution. I understand that this interview will be audiotapes for transcription and future data analysis.

CONFIDENTIALITY: I understand that once my interview is completed my name will be removed as an identifier and will be assigned a number. Once this number is assigned, I understand that my name will no longer be used to identify interview responses.

RISKS: I understand that there are no known risks for participating in this study.

BENEFIT/RESULTS: I understand that I may not receive any direct benefits from participating in this study. I understand that the results may enhance information regarding Internet-based education in NAD SDA colleges/universities. I understand that the information collected during this study will be included in two Doctoral Dissertations and may be presented or published in professional meetings and journals.

VOLUNTARY PARTICIPATION: I understand that my participation in this study is voluntary. I understand that I may discontinue my participation in this study at any time without penalty or prejudice. I also understand that there is no compensation in return for my participation.
Participant Signature: ____________________________
Dated: ______________________________________

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REFERENCE LIST


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Pisel, K. (2001). *The validation of a detailed strategic planning process model for the implementation of distance education in higher education.* Unpublished doctoral dissertation, Old Dominion University, Norfolk, VA.


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Pamela Keele Cress, MSW
975 S.E. Creekside, College Place, WA 99324

DEGREE INFORMATION

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<td>Andrews University</td>
<td>Leadership</td>
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<td>June 1994</td>
<td>Walla Walla College</td>
<td>Characteristics and needs of mentally ill chemical abusers</td>
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LICENSURE AND CERTIFICATIONS

State of Washington Registered Counselor since 1998: #RC00038784

ACADEMIC APPOINTMENTS

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<td>Walla Walla College School of Social Work</td>
<td>Associate Professor</td>
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<td>June 1999 – June 2002</td>
<td>Walla Walla College School of Social Work</td>
<td>Assistant Dean of Administration</td>
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<tr>
<td>July 1996 – January 2002</td>
<td>Walla Walla College School of Social Work</td>
<td>Assistant Professor</td>
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<tr>
<td>1990 – 1995 - Intermittent</td>
<td>Walla Walla College School of Social Work</td>
<td>Adjunct Faculty</td>
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PROFESSIONAL EXPERIENCE

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<tr>
<th>Date Range</th>
<th>Institution</th>
<th>Position/Title</th>
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<tr>
<td>September 1992 – June 1996</td>
<td>Walla Walla County Department of Human Services</td>
<td>Human Services Manager</td>
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<tr>
<td>August 1990 – September 1992</td>
<td>Walla Walla County Department of Human Services</td>
<td>Resources Management Coordinator</td>
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<tr>
<td>September 1990 – August 1991</td>
<td>St. Mary Medical Center, Behavioral Medicine Unit</td>
<td>MSW Intern</td>
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<tr>
<td>September 1986 – August 1989</td>
<td>Helpline</td>
<td>Director</td>
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