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Faculty Perceptions of Selected Strategies Used by Provosts in Planning and Implementing Distance Education Initiatives

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FACULTY PERCEPTIONS OF SELECTED STRATEGIES USED BY PROVOSTS IN PLANNING AND IMPLEMENTING DISTANCE EDUCATION INITIATIVES

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Technological innovation, changing learner demographics and demands, and an increasingly competitive education market are forcing post-secondary institutions to consider distance education among their offerings. Building the institutional capacity for distance education requires administrators, including provosts, to apply effective strategies in institutional distance education initiatives. The purpose of this causal-comparative study was to determine faculty perceptions of specific strategies used by their provosts in planning and implementing distance education initiatives.

The researcher surveyed full-time tenure-track faculty in the Pennsylvania State System of Higher Education regarding their provosts' application of strategies in the provision of vision, technology, support, and incentives/compensation. Comparisons of faculty members' perceptions were then made by levels of implementation and gender, years of service, and involvement in distance education. While previous research highlighted the importance of provosts in the success of distance education initiatives, survey responses indicated that faculty members were unable to judge the efforts of the provosts in planning and implementing distance education initiatives. Furthermore, results suggested an absence of clear leadership in the development distance education initiatives.

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CHAPTER I

THE PROBLEM

Over the past decade, demographic shifts, learner demands, technological capabilities, and globalization have created the need for post-secondary institutions to reconsider how they do business and how to distinguish themselves in the market to maintain and grow enrollments. The number of adult learners seeking to complete their degrees and to advance their education has increased. Also, a variety of technological tools now exist to enable individuals to communicate and to take part in learning anytime and anywhere. By leveraging these technological capabilities, post-secondary institutions have been able to extend their reaches and to establish themselves as competitors for enrollments in once geographically disparate areas. To stay competitive, institutions must incorporate distance education into their institutional strategies. In successfully planning and implementing distance education initiatives, administrators, including provosts, will need to adopt effective practices.

The purpose of this study was to determine faculty perceptions of specific strategies used by their provosts in planning and implementing distance initiatives. Each institution in the study population was ranked as low, moderate, or high in its level of implementation based the ratio of distance education programs to the total number of programs offered by the institution. A survey instrument was developed based on a review of the literature that examines the strategies that administrators, including provosts, might use to plan and implement distance education initiatives. From the review of the literature, six areas emerged—vision, technology, support, incentives/compensation, policy, and quality. Four of the six areas—vision, technology,

support, and incentives/compensation—were selected as the basis for the survey items. The survey was administered to faculty from 11 of the 14 Pennsylvania States System of Higher Education (PASSHE) institutions that agreed to participate in the study. Survey results were analyzed to determine if faculty perceptions of the provosts' application of the selected strategies significantly differed among institutions demonstrating low, moderate, and high levels of implementation and by faculty characteristics (gender, years of service, and involvement in distance education).

Background

Over the past decade, distance education has experienced tremendous growth. Technology, changing learner demographics and demands, and the globalization of education markets have further enhanced the distance education market. For post-secondary institutions, distance education has become a necessity to compete in the higher education marketplace.

The number of students enrolled in distance education has experienced steady growth in the past decade. Students enrolled in distance education now account for nearly a third of all post-secondary enrollments. For Fall 2010, distance education enrollments accounted for 31.3% of the total enrollments, as opposed to only 9.6% of total enrollments in Fall 2002. The average annual increase in distance enrollments is now outpacing average annual post-secondary enrollments. The number of students annually who are taking at least one online course has experienced an average annual increase of 19%, compared with the average 2% increase annually in post-secondary enrollments (Allen & Seaman, 2011). At the undergraduate level, the number of students enrolled in at least one distance education course increased from 8% in academic year 1999-2000 to

20% in academic year 2007-2008. While the number of students taking at least one distance education course has shown a steady increase, the growth in the number of students enrolled in distance education programs has been modest. The number of undergraduate students enrolled in distance degree programs increased from 2% in 1999-2000 to 5% in 2003-2004, falling slightly to 4% in 2007-2008 (Radford, 2011; Sikora, 2002).

Information technologies have made it easier for individuals to communicate and learn across time and space, contributing to the growth of distance education. Technologies have become more portable and have wireless capabilities, enabling Web access from a variety of locations. According to a national student survey, 87% of undergraduate students have laptops (Dahlstrom, de Boor, Grunwald, & Vockley, 2011). Meanwhile, 63% of students reported having Internet-capable phones (Smith, Salaway, & Borreson Caruso, 2010), and 55% reported having a smartphone (Dahlstrom, et al., 2011). While not reaching the same levels of penetration, devices such as netbooks, tablet devices, and ebooks are included among the technologies that students are using to access course materials and to perform educational tasks. Furthermore, mobile devices, cloud-based applications (i.e., Web-based computer programs), and social networking tools (e.g., Twitter) are increasingly finding educational applications (L. Johnson, Smith, Willis, Levine, & Haywood, 2011). Given this cadre of devices and capabilities, students can access educational content and communicate with peers and instructors from almost anywhere. Students have cited accessing course resources, tracking progress, accessing student services (e.g., course registration and bill-pay services), and extending classroom learning among some of their most common uses of technology (Dahlstrom, et al., 2011).

Furthermore, 70% of students state that information technologies have made doing their course activities more convenient (Smith, et al., 2010).

In addition to technological changes, post-secondary institutions have seen changes in the demographics of undergraduate higher education and anticipate these trends to continue. Total enrollments in post-secondary institutions increased 38% from approximately 14.8 million in Fall 1999 to 20.4 million in Fall 2009. Overall post-secondary enrollments among traditional-age students (18-24) and non-traditional-age students (25 and over) each increased by about 38%. However, it is important to note the number of non-traditional students enrolled full time in undergraduate education. In Fall 1999, nearly 1.3 million students aged 25 and older enrolled in full-time undergraduate post-secondary education. By Fall 2009, this number had risen to 2.3 million, an 86% increase and more than double the 37% increase in the number of students aged 18-24 for the same period (U.S. Department of Education: National Center for Education Statistics, 2001, 2011).

The number of non-traditional students enrolling in higher education will continue to increase. According to enrollment projections through 2020, the enrollment at all post-secondary levels (associate's, baccalaureate, and beyond) is expected to rise 21% for students 25-34 and 16% for students 35 and older. Meanwhile, the enrollment of traditional-age students is only anticipated to increase by 9% (Hussar & Bailey, 2011).

Non-traditional learners comprise the majority of undergraduate students taking advantage of distance education programs. For annual year 2007-2008, learners 24 and older accounted for only 40.3% of undergraduate enrollments. However, this same group accounted for 55.8% of students enrolled in distance education courses and 78% of

students enrolled in distance education programs. Students age 30 and older accounted for 33.9% of students enrolled in distance education courses, and 53% of students enrolled in distance education programs (Radford, 2011). Likewise, a national survey profiling distance learners found similar patterns of non-traditional student involvement. For three consecutive years (2009-2011), the majority of students participating in distance education programs were female, 25-44 years of age, and were taking their courses primarily online (as opposed to primarily on campus) (Noel-Levitz, 2009, 2010, 2011).

The underlying motivation for students' enrollment in distance education is convenience. Howell, Williams, and Lindsay (2003) noted among their 32 trends in distance education that students would increasingly seek out opportunities to fit their schedules and their needs. Of the students participating in distance education courses, the top three reasons for enrolling were convenience, flexible pacing for program completion, and flexibility in the work schedules (Noel-Levitz, 2011).

For non-traditional learners, distance education offers the flexibility to work toward a degree while balancing life circumstances. Time constraints, including family responsibilities and work schedules, and the need for lifelong learning to compete in the workplace are contributing to the need for participation in flexible post-secondary learning environments (Dore, 2010; Folkers, 2005). Of the students enrolled in distance education programs during the 2007-2008 academic year, 59.7% were married, 55.1% had one or more dependents, and 61.5% were employed full time (Radford, 2011). Similarly, the majority of the respondents in the Noel-Levitz studies (2009, 2010, 2011) were married and employed full time.

Non-traditional learners are not the only ones who may benefit from the flexibility offered through distance education. A study sponsored by the Bill & Melinda Gates Foundation surveyed 22-30 year olds from across the country and compared college completers and non-completers. Fifty-two percent of non-completers identified the inability to afford tuition among their reasons for leaving college. Furthermore, the majority of non-completers (71%) cited the need to be able to work to make money while enrolled. Distance education, insurance and financial aid for part-time students, childcare, and evening and weekend classes were among the strategies that students identified that would relieve some of the hardships involved in completing their degrees (J. Johnson & Rochkind, 2009).

With the growth in and demand for distance education, the globalization of higher education has introduced new market pressure to post-secondary institutions. As institutions have adopted distance education, the competition for enrollments has gone from regional to global in scale (Folkers, 2005). To stay competitive, institutions must explore how technology can be leveraged to expand enrollments beyond the institution's physical and geographic boundaries (Dore, 2010; Longsworth & Panteli, 2010, March).

In this competitive environment, for-profit institutions, such as the University of Phoenix, pose a considerable threat to traditional post-secondary institutions. While for-profit institutions accounted for only 9.9% of post-secondary undergraduate enrollments in the 2007-2008 academic year, they accounted for 35.2% of students enrolled in distance education programs that same year (Radford, 2011). Traditional post-secondary institutions have been reluctant to shift their emphasis from Liberal Arts education and intellectual development to career preparation, however the for-profit institutions have

positioned themselves to serve learners seeking to achieve better employment by providing them flexibility and convenience (Christensen, Horn, Caldera, & Soares, 2011). Likewise, 60% of for-profit institutions report incorporating distance education into their strategic plans (Allen & Seaman, 2011).

For traditional post-secondary institutions, a failure to strategically implement distance education may involuntarily cede on-campus enrollments to for-profit entities. According to Christensen, Horn, Caldera, and Soares (2011), distance education represents a disruptive innovation that may significantly impact traditional post-secondary education. Disruptive innovations consist of two components—technology enablers and innovative business models. Technology enablers allow individuals and audiences who are not served or who are underserved to access a market. As the quality of the innovation improves over time, it is able to capture more market share. Meanwhile, new business models evolve in support of the innovation, allowing organizations to more cheaply serve the audiences for their products and services. For-profit institutions, by embracing distance education and targeting individuals focused on career advancement, have enabled learners who were once unable to participate in post-secondary education to obtain access to the market, allowing these institutions to capture more market share and to garner enrollments that once belonged solely to traditional post-secondary institutions. Unlike their traditional post-secondary counterparts, for-profit institutions have adopted innovative business models, producing educational content more cheaply and responding more efficiently to changes in the market. Given time, for-profit institutions may move up market and begin to add services, such as on-campus courses and the transition to adulthood, that have long been the domain of traditional post-secondary education.

Given the growth of distance education, the flexibility provided by technological innovations, the changes in learner demographics and demands, and the rise of global educational markets, post-secondary institutions must consider distance education among their strategies to stay competitive. Despite this, Allen and Seaman (2011) found that, while 77% of chief academic officers (i.e., provosts) at public institutions agreed that distance education was a strategic priority, less than half (48.1%) of their institutions had actually included distance education in their strategic plans. The failure of institutions to embrace distance education may prove fatal (Beaudoin, 2003a; Osborn, 2009). To remain competitive, post-secondary institutions must consider establishing a distance education presence.

The Provost's Role in Post-Secondary Institutions

The provost at post-secondary institutions plays a critical role in the institution's academic mission. The provost is responsible for articulating the mission, campaigning for institutional change, and aligning resources to enable this change. Given the current issues in higher education and his or her role in enacting and promoting strategic initiatives, the provost, therefore, plays a necessary role in distance education initiatives.

In enacting the academic mission of the institution, the provost has assumed a role of strategic importance. The provost works with the college deans to accomplish the institutional mission (Mech, 1997; Paradise & Dawson, 2007). The deans assume operational responsibility for the institution (Ferren & Stanton, 2004). Meanwhile, the provost seeks out new opportunities for the institution, balances internal and external interests, and addresses the needs of the students and the community (Johns, 1993; Lucido, 2000; Mech, 1997; Panec, 2008; Paradise & Dawson, 2007). Budgeting,

marketing, fundraising, the handling of legal affairs, generating reports, and attending meetings are also within the scope of the provost's position (Ferren & Stanton, 2004; Johns, 1993; Martin & Samels, 1997; Mech, 1997).

In providing strategic direction, the provost influences constituents within the organization and encourages them to take action. Rather than make strategic decisions from the top down, provosts tend to collaborate with stakeholders across the institution to bring about organizational change (Mech, 1997). Research highlights the role of the provost in helping individuals to understand organizational change, addressing concerns, building consensus, and soliciting buy-in for institutional initiatives (Anderson, 2002; Johns, 1993; Lucido, 2000; Lutz-Ritzheimer, 2005; Mech, 1997; Panec, 2008).

Academic leadership comprises a core area within the provost's purview. The provost is responsible for the hiring and development of academic staff and curricular development (Eilerts, 1980). The ability of the provost to understand, address, and explore the development of curriculum and the incorporation of technology into the curriculum have been noted as critical competencies (Lutz-Ritzheimer, 2005). To fulfill this role, the provost must be included in the planning, financing, organizing, training, and communicating involved in curricular change (Ferren & Stanton, 2004; Gopalakrishnan, 2011).

Given his or her role in curricular development, it logically follows that distance education falls within scope of the provost's responsibilities. Abel (2005a) found the provost to be a central figure in the successful implementation of distance education programs. Furthermore, the provost has been noted among other administrators as critical

to the success of distance education initiatives (Covington, Petherbridge, & Warren, 2005; McCarthy & Samons, 2009).

Despite the critical role they play in distance education initiatives, provosts still demonstrate a reluctance to embrace distance education. While provosts consider distance education a strategic priority, a smaller number of them have actually included distance education in their institutional strategic plans (Allen & Seaman, 2011). Furthermore, provosts have rated cutting programs and faculty higher than adopting distance education as a means of controlling institutional costs (Green, Jaschik, & Lederman, 2012).

The provosts' role in the academic mission and curricular change places distance education within their purview. The provost plays a key role in the success of distance education initiatives. Despite the challenges facing higher education and the increased pressure to engage in distance education, provosts still hesitate to strategically address it.

Administrators and Distance Education

The role of administrators, including the provost, in planning and implementing distance education programs has been neglected in distance education research. Instead, studies have tended to focus on faculty concerns and pedagogical issues. As discussed in Chapter II, the research has yielded a number of recommendations for strategies that administrators should employ in planning and implementing distance education initiatives. However, these studies have mostly been descriptive, defining what has been done in the development of distance education initiatives, as opposed to connecting strategies with the institutional ability to achieve results and to grow programs.

Statement of the Problem

Given the strategic importance of distance education and the role of provosts in guiding the academic missions of their institutions, the identification of effective strategies in planning and implementing programs is crucial. The growth of distance education, technological innovations, and learner demographics and demands require institutions to address distance education. The provost's responsibilities in setting and managing the institution's academic agenda and in providing curricular leadership underscore his or her importance in the development of distance education initiatives. While provosts have been noted as critical to the success of these initiatives, little research has examined their role in distance education. Additionally, research has identified a number of strategies for administrators, including provosts, to apply in the development of distance initiatives. However, the research has not assessed the relationship between these strategies and the institutional ability to establish distance programs. The identification of strategies with significant relationships to the institutional capability to grow distance education programs can provide provosts and other key administrators with successful models to emulate as they manage their institutions' distance education efforts.

Purpose of the Study

The purpose of this study was to determine if faculty perceptions of the provosts' use of distance education planning and implementation strategies significantly differed among institutions demonstrating low, moderate, and high levels of implementation. Faculty who were both involved and who were not involved in distance education were invited to participate, providing a more comprehensive assessment of the provost’s ability

to engage faculty in distance education initiatives. The Pennsylvania State System of Higher Education (PASSHE) was the setting for the study. The 14 PASSHE schools were classified as low, moderate, or high in their levels of implementation of distance education programs by determining the ratio of distance programs to total programs offered. A survey consisting of 27 demographic, Likert-scale, and open-ended items was used to assess faculty perceptions of the provost's application of the strategies in the vision, technology, support, and incentives/compensation dimensions of the Distance Education Administrator Practices Framework. The survey was administered to full-time tenure-track faculty members at PASSHE institutions. Survey results were analyzed to determine if faculty perceptions significantly differed among institutions demonstrating varying levels of implementation and if perceptions differed significantly by demographic characteristics (e.g., gender, years of service, and involvement in distance education).

Significance of the Study

This study was an attempt to assess the efficacy of distance education planning and implementation strategies as used by provosts. As highlighted in Chapter II, distance education research has identified and recommended a number of strategies that administrators, including provosts, should adopt in planning and distance education initiatives. This research extended this work by assembling these strategies into a testable framework and by quantitatively comparing their application as assessed by faculty at institutions demonstrating varying levels of distance education implementation. While the results of this study did not indicate significant practices in the areas of vision, technology, support, and incentives/compensation, it provided a framework and a

methodology by which these phenomena can be assessed in other contexts and with other administrative roles.

This study also challenged the significance of the role of the provost in distance education initiatives. In providing strategic direction and in promoting academic and curricular change, the ability of provosts to communicate, collaborate, and build consensus among stakeholders have been noted as necessary skills (Anderson, 2002; Ferren & Stanton, 2004; Gopalakrishnan, 2011; Johns, 1993; Lucido, 2000; Lutz-Ritzheimer, 2005; Mech, 1997; Panec, 2008). At the same time, provosts were highlighted as critical in institutional distance education efforts (Abel, 2005b; McCarthy & Samons, 2009). In this study, faculty perceptions of the provosts' use of distance education planning and implementation, while demonstrating some significant differences by the independent variables, indicated that they were unable to judge the provosts' efforts. Furthermore, provosts were not identified as playing an influential role in the distance education initiatives.

Limitations of the Study

The study and data collection procedures presented several limitations that must be acknowledged. First, while a variety of factors may influence the development of the institutional capacity for distance education, this study only focused on faculty perceptions of their provosts' use of a selected group of strategies. The exploration of these perceptions and the causal-comparative research design could neither indicate causation, nor could it discount the effects of other influences impacting an institution's level of distance education implementation. Likewise, survey research relies on a finite set of pre-determined assumptions in order to make observations. This limitation of

survey research, as noted by Gay and Airasian (2000), does not allow for elaboration or clarification regarding the faculty perceptions. Second, as noted in the research, there may be a variety of indicators by which institutions evaluate their distance education efforts (e.g., quality, enrollments, or revenues), institutional levels of implementation represented only one indicator of the results of an institution's distance education initiatives. Third, the data gathered were only able to provide information regarding a single moment in time (Buddenbaum & Novak, 2001; Gay & Airasian, 2000). Fourth, the study required faculty to assess the efforts of the provost they had during the 2011-2012 academic year. This direction was included due to recent turnover in the provost positions at the universities where faculty were surveyed. In some cases, this may have required faculty members to recall past events or information and to assess the efforts of a provost no longer employed at the institution. Lastly, this study used a narrow study population (e.g., full-time, tenure-track faculty members in the Pennsylvania State System of Higher Education). While every effort was made to assure that the study results were generalizable, low return rates and participant self-selection were problematic. Low return rates resulted in unequal sample sizes across independent variables, thus affecting the validity of the statistical analyses conducted using the two-way analysis of variance. Furthermore, the majority of the participants in the study sample represented faculty who were involved in distance education. Subsequent studies with better controls for sample size and demographic characteristics will be needed to determine if the study results are generalizable to institutions in other contexts and that represent various institutional types (e.g., public, private, and for-profit) and institutional sizes.

Research Questions

The following research questions guided the study. As the subsequent literature review indicates, distance education research has produced a number of recommendations for strategies that administrators should adopt in planning and implementing distance education programs. This study explored faculty perceptions of the planning and implementation strategies applied by provosts in the areas of vision, technology, support, and incentives/compensation to make comparisons of faculty perceptions by institutional levels of implementation, gender, years of service, and involvement in distance education.

RQ1. Is there a statistically significant difference among faculty perceptions of the provosts' use of planning and implementation strategies at Pennsylvania post-secondary institutions demonstrating low, moderate, and high levels of distance education implementation?

RQ2. Is there a statistically significant difference among faculty perceptions of the provosts' use of vision at Pennsylvania post-secondary institutions demonstrating low, moderate, and high levels of distance education implementation?

RQ3. Is there a statistically significant difference among faculty perceptions of the provosts' provision of distance learning technologies at Pennsylvania post-secondary institutions demonstrating low, moderate, and high levels of distance education implementation?

RQ4. Is there a statistically significant difference among faculty perceptions of the provosts' provision of support functions for distance education at Pennsylvania

post-secondary institutions demonstrating low, moderate, and high levels of distance education implementation?

RQ5. Is there a statistically significant difference among faculty perceptions of the provosts' provision of incentives/compensation for faculty participation in distance education at Pennsylvania post-secondary institutions demonstrating low, moderate, and high levels of distance education implementation?

Methods of Study

To answer the research questions, the researcher surveyed 3,027 full-time tenure-track faculty members at 11 of the 14 institutions that comprise the Pennsylvania State System of Higher Education (PASSHE) regarding their perceptions of their provosts' use of selected distance education planning and implementation strategies. The researcher-developed Web-based survey consisting of demographic, Likert-scale, and open-ended items was used to collect data. Demographic items were used to describe the study sample and to group participant responses. Scale items were designed to assess the provosts' use of the selected planning and implementation strategies derived from recommendations highlighted in the literature (discussed in Chapter II). Open-ended items provided qualitative information about participants' attitudes toward distance education and to identify individuals they perceived as distance education leaders on their campuses. A total of 480 valid responses were analyzed to make comparison by institutional level of implementation and by gender, years of service, and involvement. The survey was considered an appropriate data collection method for this type of research because it enables the simultaneous collection of data from a large sample regarding

respondents' perceptions and attitudes (Buddenbaum & Novak, 2001; Fink, 2006; Weisberg, Krosnick, & Bowen, 1996).

Definition of Terms

The following is a list of key terms used throughout the study:

Distance Education—"Formal educational process that uses technology to deliver instruction to students who are separated from the instructor and to support regular and substantive interaction between the students and the instructor, either synchronously or asynchronously. The technologies may include the Internet, one-way and two-way transmissions through open broadcast, closed circuit, cable, microwave, broadband lines, fiber optics, satellite, or wireless communication devices; audio conferencing; or video cassettes, DVDs, and CD-ROMs if used in a course in conjunction with any of the technologies listed." (Middle States Commission on Higher Education, 2011, p. 57).

Levels of Implementation—The number of distance education programs as a proportion of the total number of programs offered by an institution.

Provost—The vice president in charge of the academic division of a post-secondary institution; titles may vary across institutions and include chief academic officer, academic vice president, vice president of academic affairs, dean of academic affairs, or dean of faculty (Martin & Samels, 1997). Provost has been used for the purposes of this study because it is the title most relevant to the study context.

Summary

The remainder of this study is outlined as follows. Chapter II examines the research regarding the roles of administrators (including provosts) in distance education and faculty barriers and motivators to identify strategies recommended for planning and

implementing distance education initiatives. The methodology follows in Chapter III. Chapter IV includes the results of data collection and analysis, and Chapter V discusses the results and recommendations for practice and future study.

CHAPTER II

LITERATURE REVIEW

Distance education research has produced a number of recommendations for strategies that administrators, including provosts, might utilize to plan and implement distance education initiatives at their institutions. The following synthesis of these strategies provided the theoretical framework for this study. The themes in the literature were used in the construction of the Administrator Practices Framework and the survey instrument that was used to collect faculty perceptions of the strategies as utilized by their provosts. Analysis of these perceptions can potentially identify strategies and faculty characteristics that have may positively impact distance education initiatives.

Introduction

It is becoming increasingly imperative for post-secondary institutions to incorporate distance education into their institutional offerings. These efforts will require administrators at the highest levels of the institution and faculty to collaborate in the development of distance education initiatives. Administrators, including provosts, have been noted as having a critical role in the success of distance education efforts. These administrators will require effective practices to develop a vision and to enlist support for and address the components of distance education.

Technological innovations, changing learning demographics and demands, and globalization are requiring post-secondary institutions to adopt distance education. A variety of technologies, including portable devices and Web-based tools, are now available, enabling individuals to communicate across time and space and to take part in learning activities anytime, anywhere (Dahlstrom, et al., 2011; L. Johnson, et al., 2011;

Smith, et al., 2010). At the same time, more adult and non-traditional learners are taking part in post-secondary educational opportunities, seeking flexible learning opportunities to balance learning activities with family and work obligations (Radford, 2011; U.S. Department of Education: National Center for Education Statistics, 2001, 2011). According to enrollment projections, the adult and non-traditional post-secondary enrollment trend is expected to continue through 2020 (Hussar & Bailey, 2011). Given the convenience and flexibility of distance education, adult and non-traditional learners form a majority of the students taking advantage of distance education (Noel-Levitz, 2009, 2010, 2011). However, traditional learners are also considering distance learning among their options for completing their educations while coping with economic and personal hardships, such as the need to work while pursuing their degrees (J. Johnson & Rochkind, 2009). Over the past decade, distance education has experienced steady growth (Allen & Seaman, 2011). Given the proliferation of distance education, post-secondary institutions are no longer engaged in regional competition for enrollments. They are competing globally (Folkers, 2005). In addition to competition from other traditional post-secondary institutions, for-profit institutions pose a significant threat to traditional higher education. These institutions produce content more cheaply, respond rapidly to market needs, and cater to the needs of adult learners who are interested in career advancement over intellectual development. The combination of these factors may enable for-profit institutions to further develop their capabilities and undercut the role of traditional post-secondary institutions (Christensen, et al., 2011).

Traditional post-secondary institutions can no longer consider whether or not to adopt distance education, they must now ask how they can implement distance education

effectively. Experts warn that a reluctance to embrace distance education could result in the closure of some institutions (Beaudoin, 2003a; Osborn, 2009). Furthermore, for-profit entities are establishing themselves as a formidable threat to traditional post-secondary institutions. As highlighted by Christensen, Horn, Caldera, and Soares (2011), the potential exists for for-proft institutions to capture a larger share of the education market and, perhaps, even replace traditional colleges and universities, unless they innovate.

The implementation of effective distance education initiatives requires individuals at all levels of the institution to engage in the process. Directors, deans, department chairs, and faculty must collaborate to transform the organization, plan and implement change, and address the needs of the students (Irlbeck, 2002). The early commitment on the part of the administrators—presidents, provosts, and academic deans—has been found to be critical to the success of distance initiatives (Abel, 2005a; Covington, et al., 2005; McCarthy & Samons, 2009). While the role of executive administration is important, Abel (2005a) notes the simultaneous involvement of grass-roots efforts on the part of the faculty. The faculty are responsible for curricular decisions and whether or not to offer courses via distance education (Cornner, 2010; Kampov-Polevoi, 2010). Providing a faculty voice in the planning of the vision, development, and implementation of distance education enables the administration to obtain faculty buy-in, to make appropriate decisions regarding processes and the provision of support, and to address faculty barriers and motivators (Betts, 1998; L. Maguire, 2009; L. L. Maguire, 2005; Meyer, 2009; Slovick, 2011).

The individuals involved in distance education must foster organizational change and set the institutional vision and strategic direction. They are change agents (Folkers,

2005; Garza Mitchell, 2009; Otte & Benke, 2006; Schrenk, 2011)**.** These individuals must operate at the center of the change and establish themselves as partners in determining the institution's strategic direction (Beaudoin, 2003a, 2003b). Their vision is important in setting the agenda and creating the case for distance education (Cornner, 2010). As change agents, they provide the vision and operationalize concepts essential for success; they create energy, foster initiatives, and inspire others within the organization (Beaudoin, 2003a).

Furthermore, individuals involved in distance education initiatives must be prepared to address and support the individual components of distance education programs. This includes planning for quality in the development process; motivating faculty members through acknowledgement, training, and support; and assuring that resources for faculty and students are in place (Yang & Cornelious, 2005). The individuals must also understand important issues in the development of distance education programs, including intellectual property, faculty workload, copyright, academic freedom, and student-faculty relationships (Portugal, 2006).

Technological innovations, changes in learner demographics and demands, and a more globalized higher education environment are forcing post-secondary institutions to adopt distance education as a means to meet learner needs and to remain competitive. For administrators involved in planning and implementing distance education initiatives at their institutions, this will require them to adopt effective practices in driving organizational change. While the role of administrators has been noted as an important component in the development of the institutional capacity for distance education, administrators must also take into account the concerns of the faculty as an important

constituency from whom buy-in and support for distance education initiatives must be obtained.

The Provost's Role in Post-Secondary Education

The provost plays a critical role in guiding the post-secondary institution's academic mission. Provosts have become increasingly responsible for institutional strategy. Given the current issues facing higher education and the strategic importance of the provost in shaping and enacting the academic mission, it is therefore imperative that the provost be involved in distance education initiatives.

At its genesis, the provost position was born out of the convergence of institutional growth, political need, and presidential advisement. As institutions grew, presidential responsibilities expanded, necessitating the off-loading of duties. Provosts assumed some of the day-to-day operations of the institution, met with students, and substituted in the president's absence. The provost also fulfilled a political role as the liaison between the faculty and the administration. Lastly, the provost served as a trusted confidant to the president, providing both friendship and advisement (Nidiffer & Cain, 2004).

Following a similar evolutionary trajectory as the presidency, the modern provost's role has shifted from operational to more strategic. The provost is now responsible for articulating the academic mission. This includes seeking entrepreneurial opportunities for the institution, balancing the interests of both internal and external stakeholders, advocating for technology, and aligning resources to meet the educational needs of students (Johns, 1993; Lucido, 2000; Paradise & Dawson, 2007). Furthermore, the provost's repertoire of duties includes budget oversight, fundraising, marketing, and

legal affairs (Martin & Samels, 1997). While the provost works on strategic matters, day-to-day operations have shifted to the college deans (Ferren & Stanton, 2004). The provost collaborates with the deans to assure that the institutional mission is fulfilled (Paradise & Dawson, 2007). The provost, however, remains the faculty voice in the administration in matters of planning, budgeting, enrollment management, and the hiring and evaluating of administrators (Ferren & Stanton, 2004).

The provost's role as described in the research literature emerges as a team leader who collaborates with others and inspires them to action. While provosts have the ability to make strategic decisions, they do not do so from the top down. Rather, they collaborate with faculty or mid-level managers to drive the institutional mission (Mech, 1997). A recurring theme in the literature is the provost's role in working with constituents in helping them to understand organizational change, addressing concerns, obtaining buy-in, and coordinating and managing efforts to address institutional goals (Anderson, 2002; Johns, 1993; Lucido, 2000; Lutz-Ritzheimer, 2005; Mech, 1997; Panec, 2008). Provosts work to build consensus, solicit participation in institutional initiatives, coordinate efforts, and communicate expectations (Johns, 1993). Likewise, in studies by Mech (1997) and Anderson (2002) provosts indicated motivating and training subordinates and transmitting information as two of their most-performed managerial roles. Lutz-Ritzheimer's competency model for provost leadership (Lutz-Ritzheimer, 2005), denotes the importance of interpersonal dynamics. The ability of individuals in (or seeking to be in) the provost position to interact with diverse individuals, listen effectively, approach people with respect, develop relationships, and manage conflict and disputes form the basis from which competencies, such as managing resources, developing human and

institutional resources, and collaboration emerge. Panec (2008) demonstrates the value of interpersonal dynamics in her exploration of the role of provosts in helping stakeholders to make sense of organizational change. In light of organizational changes that violated the history and culture of the institution, the provost in her case study adopted practices, such as breakfast meetings and open forums that enabled constituents to ask questions, clarify understandings, and make sense of and ultimately support organizational changes.

The provost has also been attributed with responsibility for encouraging the transformation of the curriculum through the integration of technology. Securing and implementing new technologies and delivery systems for instruction and developing institutional capacity have been noted as competencies required for successful performance as provost (Lutz-Ritzheimer, 2005). Technology represents a major curricular change and requires the provost to consult and build credibility with the faculty (Coffman, 1997). The provost is responsible for planning, financing, organizing, training, and communicating in technological initiatives. In planning, the provost creates a technology plan that balances the interests of IT experts and the faculty. To finance the plan, the provost works with IT and the finance division to assure the appropriate budgetary support for technology. The provost's primary concern in organizing technical resources is assuring the support of the institution's academic mission. Meanwhile, he or she may work with IT to assure that resources are appropriately allocated to assist students and faculty in their use of technology. Improving student competence is important for students' performance in their academic work, as well as for competing in the job market following graduation. Furthermore, to assure that faculty integrate technology skills into instruction, provosts may consider the provision of

stipends/incentives for faculty to participate in training (Ferren & Stanton, 2004). Lastly, the provost should communicate and promote the role of technology in innovating instruction. Likewise, in a proposed model for the development of distance education programs, Gopalakrishnan (2011) stresses the importance of the involvement of institutional leadership, including provosts, in creating the vision, developing support for, and managing the transition to distance education.

Contrary to the need for institutions to engage in distance education, provosts rate distance education lower among other institutional priorities. In a survey conducted by Inside Higher Ed, only 46.7% of the provosts surveyed noted the expansion of distance education programs as important. Provosts ranked such issues as addressing budget shortfalls, nurturing junior faculty, addressing academic quality, maintaining accreditation, and retaining students higher among the strategic initiatives they would like to deploy. Furthermore, provosts rated cutting non-performing programs and faculty higher than the development of distance education programs as strategies for controlling costs (Green, et al., 2012). In the 2011 Sloan online learning report, 65.5% of provosts agreed that distance education was a strategic priority for their institutions. However, a smaller number of institutions reported the incorporation of distance education into institutional strategic plans. Private for-profit institutions were most likely to have distance education in their strategic plans, followed by public institutions and, lastly, private non-profits (Allen & Seaman, 2011).

The role of the provost has been identified as critical in the success of distance education programs. In his study of institutions declaring success in online learning, Abel (2005a) found a 41% correlation between provost support and success in the development

of distance education programs. Furthermore, individuals with primary responsibility for institutional success in distance education initiatives correlated 48% with provosts, second only to the academic deans (52% correlation).

Despite the critical role they play in distance education initiatives, little attention has been given to provosts in distance education research. Of the studies that have been conducted, the provosts demonstrated perceptions that might be considered counter-productive to distance education development. Benton (2001) examined the perceptions of provosts and chief distance education officers in the North Carolina Community College System regarding faculty satisfaction in the areas of training, workload, release time for development, release time for training, institutional support, and faculty satisfaction. Provost perceptions of faculty satisfaction were found to be more positive than those of the chief distance education officers. Benton attributed this difference in perceptions to the provosts' removal from the faculty engaged in the process. Similarly, Thomas (2006) compared perceptions among provosts, chief business officers, and chief information officers regarding the mission, vision, and funding of distance education initiatives. While differences were not significant, provosts emphasized the delivery of distance education for on-campus students and a reliance on traditional funding sources (e.g., state appropriations and tuition) to fund distance education initiatives, as opposed to more innovative funding models. Furthermore, the provosts in the study identified distance education as a means to generate revenues and as a cost-savings measure, rather than as a way to serve students.

Given their responsibilities for the academic missions and identifying strategic opportunities for their institutions, the development of distance education initiatives fall

within the provosts' purview. As part of his or her role, the provost must engage and encourage faculty to innovate and transform the curriculum through the use of technology. Furthermore, the provost is responsible for coordinating the resources across the institution to assure that the technology meets the needs of teaching and learning. The provost, therefore, plays an important role in an institution's development of distance education. However, research regarding the role of the provost in distance education initiatives demonstrates that these individuals may not possess a clear understanding of effective distance education implementation.

Distance Education Research and the Role of Administrators

Despite the importance of provosts and other administrators to the success of distance education initiatives, their roles in these initiatives have received little attention in the literature. Studies have primarily been descriptive—relating the practices administrators utilized in a given situation and the resulting outcomes. Also, these studies have typically examined the distance education efforts within a single institution or group of related institutions (e.g., a community college system or state system of higher education). However, two studies in particular, Abel (2005a) and McCarthy and Samors (2009) examined institutions identified as successful in their implementation of distance education and attempted to define successful practices and to make recommendations to administrators. By examining the research regarding administrators, six strategic areas—vision, policy, technology, support, incentives/compensation, and funding—were identified.

When compared to other topics in distance education, empirical research in effective strategies for the development of distance education programs has received little

attention. Research in this area is important in the development of individuals equipped to address the challenges facing higher education (Beaudoin, 2003a). However, distance education research has instead emphasized faculty concerns, design theory, and topics in teaching and learning (Davies, Howell, & Petrie, 2010; Tuncay & Uzunboylu, 2010; Zawacki-Richter, Bäcker, & Vogt, 2009). One explanation for the emphasis on pedagogy and issues of teaching and learning is that much of the research is conducted by academics who are more concerned with pedagogy over administrative matters (Beaudoin, 2003a).

Three analyses conducted between 2004 and 2010 examining the prevalence of topics in distance education research highlight the lack of attention given to the function and practices of administrators. The first study, conducted by Lee, Driscoll, and Nelson (2004), used a pre-defined set of categories—design, development, management, evaluation, institutional and operational, and theory and research—to evaluate a sample of literature between 1997 and 2002. More than half (58%) of the topics were in the design, theory, and research areas. These areas emphasized course and instructional materials design and theoretical, historical, and legal issues in distance education. The management category, which only accounted for 11% of the items sampled, focused more on managing and supporting development and teaching, as opposed to actively fostering distance initiatives. In Zawacki-Richter, Bäcker, and Vogt's (2009) study, the researchers examined a sample of 695 articles from five journals published between 2000 and 2008. Only 18 articles (2.6% of the sample) addressed the management and organization of distance programs. Meanwhile, learning communities (17.6%), instructional design (17.4%), and learner characteristics (16.3%) accounted for more than

half of the articles sampled. In the third and most recent study, Davies, Howell, and Petrie (2010), using the search term "distance education" and the ProQuest Dissertation and Thesis Database, conducted a content analysis of theses and dissertations from 1998 to 2007. Only one of the researchers' coding categories explicitly emphasized administrative issues with particular attention given to policy issues. Student, pedagogical, and instructional design issues were found far more frequently than studies addressing administrative concerns. Furthermore, the researchers noted that most of the theses and dissertations reviewed addressed perceptions, concerns, and satisfaction in distance education more than establishing theories.

Studies examining administrators and leadership have provided recommendations for strategies that administrators might use in the development and implementation of distance education initiatives. A majority of the studies have highlighted the experiences of administrators within a single institutional context. Case studies have been used to highlight administrator practices that were effective as part of distance education initiatives (Cornner, 2010; Covington, et al., 2005; Rhoda, Fink, & Green, 2005, August). Osborn (2009) conducted qualitative interviews with seven chief academic officers in the Kansas Independent College System. Results indicated the importance of institutional vision, policy, and funding in the development of distance education programs. Similarly, Styron, Wang, and Styron, Jr. (2009) conducted interviews with four individuals with administrative experience who were considered leaders in distance education at a research university. Six thematic areas—distance education offerings, faculty considerations and incentives, student considerations, resources and external support, lack of funding and costs, and administrative characteristics and considerations—were

identified as critical in administrative decision-making processes. Other studies have examined administrators' experiences across multiple institutions. In Hirning's 2009 study, 20 university administrators (chancellors and presidents; vice presidents; provosts; and academic deans and chairs) from five institutions were interviewed. Collaborative strategic planning, institutional fit, and training and support were identified as key strategies used in distance education initiatives. Corrner (2010) conducted an in-depth case study of three institutions in the California Community College system. Based on an analysis of documents and insights from both faculty and administrators, the research highlighted the importance of both faculty and administrative leadership and collaboration in the development process. Two studies have explored administrator practices on a national scale. Each of the studies identified institutions with successful distance education programs—as defined by enrollment growth, student outcomes, and student satisfaction—in an effort to identify and provide administrators with guidance in implementing distance education programs (Abel, 2005a; McCarthy & Samons, 2009). Abel (2005a) conducted surveys and interviews at 21 institutions nationwide. Institutional motivation and commitment, faculty and student support functions, and programmatic approaches to distance development were identified as key institutional success factors in distance development. McCarthy & Samons' (2009) study of successful distance education programs examined 45 public institutions across the U.S. The study is the culmination of 231 institutional interviews with administrators, faculty, and students and a survey of 11,000 faculty members. Administrative considerations outlined in the report included strategic planning, support, technological resources, communication of vision, and ongoing assessment of programs.

Research emphasizing the roles of administrators in distance education initiatives have produced recommendations for practice in six key areas—vision, policy, technology, support, incentives/compensation, and funding. Through vision, administrators highlight the need to adopt distance education and its connection with the institutional mission. Policies guide the development of distance education and address key areas, including training, support, compensation, and intellectual property. With regard to technology, administrators are responsible for assuring the provision of technologies that support teaching and learning. In addition, administrators must assure that support is provided to assist both instructors and students in their use of the technology, including providing both training and technical support. Furthermore, support functions for faculty should emphasize pedagogy, teaching, and learning and provide opportunities for peer support and mentoring. To encourage faculty participation in distance education initiatives, administrators should consider incentives and compensation, such as public acknowledgements, financial rewards, and release time. Lastly, administrators must consider the funding of distance education initiatives. A majority of the key areas highlighted previously require fiscal resources; therefore administrators have an imperative to assure that distance education initiatives are well funded. Each of the six key factors will be discussed in greater detail in the following sections.

Vision

Administrators leading distance education initiatives need to convey purpose and gather support from stakeholders in the development of programs. The reasons for developing distance education programs should be clearly defined and support the

mission of the institution. Promoting the vision and garnering support from stakeholders will assist in facilitating necessary change.

The institutional vision for distance education connects program initiatives with the institution's mission and strategic plan. Vision is an important success factor in the implementation of distance education programs (Abel, 2005a; Dore, 2010; Irlbeck, 2002; Osborn, 2009). Institutions with clear visions conveyed from the top of the organization and connected with their strategic plans have experienced the greatest success (Osborn, 2009). Administrators should set the goals for programs and assure their alignment with the institution's mission and strategic plan (Beaudoin, 2003a; Compora, 2003; Covington, et al., 2005; Hirning, 2009; Jones, 2008, November; Longsworth & Panteli, 2010, March). Furthermore, plans define the goals, objectives, and rationale of incorporating distance education into institutional strategies (Compora, 2003; Jones, 2008, November). Articulating the role of distance education in terms of institutional mission and strategy reinforces the value and importance of the initiative (Orr, Williams, & Pennington, 2009).

Institutions have cited a number of reasons for developing distance education programs. Increasing access, student convenience and flexibility, and meeting the needs of adult learners are among the student concerns addressed through distance education (Abel, 2005a; Dore, 2010; McCarthy & Samons, 2009; Nobles, 2010). Institutional concerns include addressing competition from other schools, growing enrollments, and increasing revenues (Abel, 2005a; Nobles, 2010).

To build support for the programs, the vision for distance education must be conveyed to stakeholders and prepare them to make the changes necessary to facilitate distance learning. In addition to clarifying the relationship between distance education

and its goals within the institution, it is important to communicate and promote the strategic plan for distance education among stakeholders (Beaudoin, 2003a; Garza Mitchell, 2009; Otte & Benke, 2006). Energy must be created around the initiative to inspire innovation (Beaudoin, 2003a). Conveying the vision helps to align stakeholders behind the culture change (Osborn, 2009). Furthermore, positioning distance education more centrally, prepares instructors to move from the role of teacher to the role of facilitator and to effectively use technology (Folkers, 2005; Garza Mitchell, 2009).

In creating the vision for distance education, administrators create a case for why distance education is to be implemented at the institution and "sell" the idea to their constituents. Distance education initiatives that support institutional missions and strategic plans have been credited with success. The vision must be shared with stakeholders to garner support and promote adoption.

Policy

Along with vision, administrators must consider policies that support distance education development and implementation. Distance education policies address a variety of issues, including faculty concerns and student services. While the implementation of policy can remove barriers to development, policy can also result in inequities and become a point of contention. To avoid issues in policy creation, administrators should include faculty members and students in the policy-making process.

Administrators should be prepared to develop policy and to address policy-level concerns. Clearly stated policies around student needs, training, technology, and funding will need to be considered (Meyer, 2009; Meyer & Barefield, 2010). Delaney (2010) studied faculty contracts and classified the distance education terms appearing in the

contracts, yielding a list of potential policy areas that might need to be considered. Included in the terms were the following policy areas: compensation, intellectual property, definition of distance education, training, class size, compensation, release time, technical support, office hours, right of refusal, quality, evaluation, faculty displacement, and privacy. Whatever the policies under consideration, they should be expansive and enable distance programs to grow (Osborn, 2009).

Policies regarding intellectual property are of particular concern. Having a clear policy regarding intellectual property and the ownership of distance courses is a critical factor in distance education success (Abel, 2005a). While there is agreement that copyright, fair use, work-for-hire, and faculty ownership of materials are all topics for policy, there does not seem to be consensus on faculty intellectual property rights for distance education (Allen & Seaman, 2011; Delaney, 2010; Folkers, 2005; Levy, 2003). Furthermore, McCarthy and Samons (2009) found no common practices for addressing intellectual property issues. Traditionally, faculty members have had rights to all materials created for learning. However, because of the greater intra-institutional collaboration and the institutional resources used to develop distance courses, the argument has been made that the materials belong to the institution for which they were produced (Folkers, 2005). Also, intellectual property policies may disadvantage full-time faculty while privileging part-time faculty. Given the legal definitions of work-for-hire and contract employees, full-time faculty are considered work-for-hire (i.e., anything they produce becomes property of the institution), meanwhile part-time faculty are under contract, granting them full ownership of their work (Levy, 2003).

It is important to note that there are some considerations in implementing distance education policy. Administrators should not rely on policy for successful implementation. Policies may be ignored, may not be enforced, or may become a point of resistance. Policies may also create restrictions, thus preventing student access to distance education (e.g., restricting students at branch campuses from enrolling in distance courses or requiring distance students to visit the physical campus) (Irele, 2005). Furthermore, policies may treat distance education as somehow different than traditional instruction (Delaney, 2010). This can result in distance education being treated as something "other" and prevent it from becoming fully integrated into the institution (Irele, 2005). Osborn (2009) recommends that institutions seeking to integrate distance education develop policies that enable the institution to extend its scope and accessibility, such as implementing rolling admissions, eliminating campus-bound requirements, and making programs easy to contact. Furthermore, administrators should take into account the role of history, structure, politics, and power in policy making. This includes awareness of the resistance to change created by tradition, considering constituent bodies (e.g., funding providers, unions, and consortiums), and privileging one constituent group over another (e.g., full-time faculty vs. temporary faculty) (L. Maguire, 2009).

Faculty and students are also important in planning policy. Efforts should be made to include faculty members and students in policy making (L. Maguire, 2009). A committee should be developed to address policy-level concerns (Hirning, 2009). The inclusion of faculty allows for the clarification of conflicting policies and gives them a sense of ownership of distance education (L. Maguire, 2009). Furthermore, involving faculty in the policy-creation process can contribute to the motivation to engage in

distance education (Garza Mitchell, 2009; L. Maguire, 2009). Involving students in the process will enable administrators to recognize and address areas of importance to them, particularly in terms of student services (L. Maguire, 2009).

Distance education presents a number of areas in which administrators may need to address policy issues, particularly in the area of intellectual property. With the exception of intellectual property, there exists little consensus as to the policies that should be addressed. In creating policy, however, caution should be taken. Policy may be met with resistance and restrict distance education's integration and scalability. To counter potential negative outcomes, to obtain buy-in, and to address areas of concern, administrators should enlist faculty and student input in policy development.

Technology

The development of distance education programs assumes the provision of appropriate technologies to support teaching and learning. Of the issues in implementing distance education programs, technology is one of the greatest concerns, followed by faculty and student issues (Dore, 2010). Administrators must assure that the institution establishes a reliable technological infrastructure and that it possesses appropriate learning technologies, such as learning management systems (e.g., Blackboard or Desire2Learn), lecture capture systems, and test security measures (Dore, 2010; Meyer, 2009; Meyer & Barefield, 2010). Potential technology issues that might need to be addressed include the reliability of the technology, course security, student and faculty access to technology, and technical support (Dore, 2010). Instructional technologies will need to be continuously evaluated to assure that courses are up to date (Meyer, 2009; Meyer & Barefield, 2010). Assuring the provision of institutional infrastructure and

distance education technologies forms only a small portion of the technical considerations in the development of distance education. Administrators must also support student and faculty use of the technology.

Support

Administrators must consider an array of support options for faculty and students in the development of distance education programs. Both faculty and students require support and training in the use of distance learning technologies. More expansively, faculty members require training in the pedagogy of teaching via distance education and resources to assist them in developing robust learning opportunities. Likewise, students may need guidance in how to successfully participate in distance education courses. Finally, administrators must assure ongoing support for programs.

Technical training and support for faculty are considered essential elements in the development of distance programs. The role of support should be considered in the planning of distance education initiatives (Abel, 2005a; Levy, 2003). Institutions need to consider a range of support options (McCarthy & Samons, 2009). These options may include technical, development and production, and instructional design support (Abel, 2005a; Rhoda, et al., 2005, August). Specific support functions may include technology helpdesks and support staff, instructional designers, academic developers, multimedia experts, peer mentors, and enrollment management (Abel, 2005a; Jones, 2008, November; McCarthy & Samons, 2009). Professional development and technical training and support provide faculty members with important motivational factors in becoming engaged with distance education (Yang & Cornelious, 2005).

Technical support should promote the use of technology and address the academic needs of distance education programs and their faculty. Resources and support should assist faculty members in becoming comfortable with the technology (Nobles, 2010). Administrators must assist information technology personnel in understanding the needs of the academic division (Otte & Benke, 2006). Furthermore, technology staff must be responsive to faculty needs and provide timely support (Meyer, 2009; Meyer & Barefield, 2010).

In addition to the technology, training should address pedagogy to build institutional capacity for distance education. Training often emphasizes technology over pedagogy (Hirning, 2009). However, it is recommended that training move beyond the technological and address the pedagogical elements of distance education (Orr, et al., 2009; Otte & Benke, 2006). Retaining students and creating online community are among the issues that training can address (Levy, 2003). Training should verse faculty members in the various models of online learning and guide them in how those models might be applied in various contexts (Jones, 2008, November). Furthermore, training can foster change in teaching at a distance, and may also positively influence faculty members' face-to-face teaching (Garza Mitchell, 2009). To underscore the importance of training, Allen and Seaman (2011) note that institutions with full distance education programs are more likely to have internal training programs and have certification programs for online instructors.

As a complement to training, peer support also should be encouraged. Training should not only target large groups of faculty but address the individual faculty members' needs (Compora, 2003). Teamwork approaches to development and mentoring assist in

the retention of training and provide additional layers of support for development (Meyer, 2009; Meyer & Barefield, 2010). In showing academic and curricular leadership, administrators should encourage faculty members to share their ideas and discoveries made in teaching at a distance and provide them with peer support and opportunities for mentoring (Compora, 2003; Levy, 2003; Otte & Benke, 2006). Examples of peer support include presentations at faculty orientation, peer-to-peer workshops, one-on-one peer coaching and support, and repositories of shared materials and resources (Covington, et al., 2005).

Furthermore, support functions for students should also be taken into account. Abel (2005a) noted supporting students among the key factors for distance education program success. Also, student support services have been linked with distance learner retention (Levy, 2003; Nobles, 2010). Student support features may include student helpdesk and technical support; online and phone registration; financial aid support; program-specific contacts; online orientations and access to library resources; the ability to order textbooks; access to course management systems, websites, and software; and feedback provided through course assessments (Abel, 2005a; Dore, 2010; Levy, 2003; Meyer, 2009; Meyer & Barefield, 2010; Rhoda, et al., 2005, August; Yang & Cornelious, 2005). Likewise, student support should be included within distance education courses, orienting learners in how to take distance education courses and encouraging interaction among the instructor and the students (Dore, 2010; Levy, 2003).

Lastly, administrator support should continue following the development of programs. Throughout the development and implementation process, administrators should be responsive in addressing the concerns and needs of faculty (Cornner, 2010;

Covington, et al., 2005; Meyer, 2009). Ongoing support is necessary for the continued development and growth of distance education programs (Otte & Benke, 2006). A portion of ongoing support should be dedicated to program evaluation and accreditation (Beaudoin, 2003a). Colleges and universities need to be able to assess, evaluate, and adapt their programs to remain competitive and viable (Portugal, 2006).

In planning and implementing distance education programs, administrators should consider the development of support functions that address faculty and student needs, as well as ongoing support for programs. Despite the importance of technical support, resource provision must go beyond simply addressing the technology. Faculty training and support in the exploration of teaching and learning at a distance should be encouraged. Fostering an environment of collaboration and peer support enables faculty members to engage in dialogue about effective teaching practices. For students, support functions assist in learner success and retention, enabling programs to flourish. To continuously improve programs, the institution should also plan for ongoing support.

Incentives and Compensation

It is common practice for administrators to offer incentives for faculty members who develop and teach distance education courses. Compensation and incentive structures have been designed to motivate faculty and to account for the extra time invested in distance development and teaching. While incentives might take the form of financial rewards, there are other potential incentives and motivators to be considered in planning distance education initiatives.

Compensation and incentive models have been defined to encourage faculty involvement in distance education. Incentives are often offered because of the time it

takes to develop and to teach distance courses (Meyer, 2009; Meyer & Barefield, 2010). To promote and inspire faculty members to teach online, administrators must identify faculty motivational factors (Abel, 2005a; Yang & Cornelious, 2005). Potential incentives for faculty to teach via distance education may include intangible factors, such as prestige, the desire for professional development, and the potential to work in teams (Abel, 2005a; Meyer, 2009; Meyer & Barefield, 2010; Yang & Cornelious, 2005). Tangible factors include alterations in workload, additional funding, awards for participation in distance education, and consideration in the promotion and tenure process (Abel, 2005a; Jones, 2008, November; Yang & Cornelious, 2005). Furthermore, issues surrounding compensation may result in resistance to distance education adoption (Delaney, 2010). Dore (2010) contends that, of faculty issues and concerns regarding distance education, workload and compensation have the greatest impact.

While providing compensation and incentives for distance development has become an accepted practice in program development, specific concerns should be taken into account in implementing these practices. Existing reward structures at an institution may not be consistent with the desire to grow distance education programs. For example, higher value may be placed on research, thus rewarding research efforts over teaching and, in turn, undermining institutional efforts to grow programs (Folkers, 2005). Also, reward structures often treat the teaching of distance education courses as ancillary to regular instruction, conferring a different status on distance education and preventing it from being treated as an integral part of the institutional mission (Delaney, 2010).

Providing compensation and incentives for distance development and teaching are considered necessary practices to foster distance education development. Both tangible

and intangible rewards motivate faculty members to become involved in distance education efforts. However, in implementing reward structures, administrators must consider how incentives and compensation for distance education integrate into the existing institutional culture and the potential effects they will have on the incorporation of distance education into the institution's academic mission.

Funding

The development of distance education programs—in particular the provision of technology, support, compensation, and incentives—requires fiscal resources. Administrators must assure funding to support infrastructure and the development of distance education programs (Hirning, 2009; Irlbeck, 2002; McCarthy & Samons, 2009; Morrow, 2010). Budgetary considerations include funding for support, human resources, technology, technology upgrades, and maintenance (Compora, 2003; Osborn, 2009). Clearly articulating the budgeting process avoids barriers to development (Compora, 2003). Institutions who have budgeted for distance development have demonstrated effectiveness in building distance programs (Osborn, 2009). Approaches to subsidizing distance education programs have included e-rate funding and revenue sharing. E-rate models charge a special tuition rate for students who are participating in distance education. Likewise, revenue-sharing models provide to academic departments a portion of the income generated from distance education enrollments (McCarthy & Samons, 2009).

The recommended strategies for administrators planning and implementing distance education initiatives assure that these efforts align with the institutional mission and strategic goals and that there is an institutional commitment to program development.

Making the case for distance education requires a clear vision and the ability to garner support for that vision. Furthermore, policy, the provision of technological resources and support functions, incentives and compensation, and funding demonstrate an institutional commitment to programs.

However, faculty members make up an important constituency to whom to appeal in building support for distance development. Faculty members are primarily responsible for developing content and teaching courses. Therefore, the faculty perspective can inform practice and provide administrators further guidance in program development.

The Faculty Role

Understanding faculty motivators and barriers provides some additional insights regarding strategies to encourage distance education development. As noted previously, distance education initiatives require a combination of top-down and grass-roots efforts. The faculty forms an important constituency from whom administrators must obtain buy-in and support. Therefore, faculty perspectives must be considered in planning and implementing distance education initiatives. The research regarding faculty involvement in distance education aligns along eight thematic areas—intrinsic motivators, rationale for distance education, technology, support, time and workload, incentives, quality, and student concerns. Each thematic area is discussed in the following sections.

Intrinsic Motivational Factors

A faculty member's motivation to become involved with distance education may be deeply personal, involving intellectual curiosity or personal satisfaction. Faculty participation in distance education may meet intrinsic needs—being challenged intellectually, using technology, providing innovative instruction, increasing interactivity

with students, applying learning techniques, and achieving personal gratification or job satisfaction (Betts, 1998; Kampov-Polevoi, 2010; Peng, 2010; Pinkerton, 2008; Rockwell, Schauer, Fritz, & Marx, 1999; Schifter, 2000; Shea, Pickett, & Li, 2005). Faculty members are more likely to participate in distance education if using technology enhances their self-image; they believe their technology skills are adequate and that technology is important to their work; and they view distance education as compatible with their working styles (Johnsrud, Harada, & Tabata, 2005). Furthermore, faculty members may hold beliefs about the purpose for distance education.

Faculty Rationale for Distance Education

Faculty members possess a sense of purpose for distance education. The ability of administrators to establish an institutional vision for distance education that is consistent with faculty beliefs enables the development of distance programs. The institutional vision must emphasize a clear rationale for adoption and may include an emphasis on student needs, improved outcomes, contextual factors, and the external factors influencing the need for change.

The consistency in vision between administrators and faculty plays a role in the adoption of distance education. Faculty members may be in support of distance education, however administrators who do not support distance instruction can hinder development (Peng, 2010). Also, a lack of clarity around the institutional vision for the incorporation of technology into instruction creates resistance (McLean, 2005). The vision leaders convey helps to align stakeholders behind the necessary culture change (Jewell, 2008; Osborn, 2009). This vision must be widely disseminated and outline the rationale for and the benefits of making the transition to distance education (Jones, 2008,

November). It should also utilize common symbolism that draws people together behind the goals of the initiative (Jewell, 2008). The plan might also express the intrinsic benefits of teaching via distance education (Betts, 1998).

From the faculty perspective, distance education provides opportunities for students and the institution. Faculty members cite the ability to reach new audiences, increase access and course flexibility, diversify programs, enhance learning, and achieve prestige for the institution as reasons to offer distance education (Betts, 1998; Bruner, 2007; Dooley & Murphrey, 2000; Kampov-Polevoi, 2010; Peng, 2010; Pinkerton, 2008; Rockwell, et al., 1999; Styron, et al., 2009). Institutional factors, such as lack of physical space and concerns about crises, such as infectious diseases and terrorist attacks, have also been considered (Kampov-Polevoi, 2010; Peng, 2010). Dooley and Murphrey (2000) found agreement among administrators, faculty, and staff who perceived distance education to be strong in its ability to enhance instruction through the use of technology and to enable institutions to reach new audiences. However, the ability to expand audiences and to diversify programs demonstrated no significant differences between faculty members teaching at a distance and those who were not, suggesting that this factor alone could not influence faculty members to adopt distance education (Pinkerton, 2008).

In contrast to the internal vision of the institution and the rationale for developing distance programs, external pressures also influence faculty. The demand for distance formats, pressure from the community, and the continued growth of distance programs contributed to faculty members' decisions to move to distance education (Kampov-Polevoi, 2010; L. Maguire, 2009). Faculty members may also desire to establish their

institution as a presence in the distance education market (Parthasarathy & Smith, 2009). Furthermore, faculty members face increased peer pressure from fellow instructors at their home institutions and colleagues at other institutions (L. Maguire, 2009).

Consistency between institutional vision and the faculty's rationale for adopting distance education contributes to the movement toward organizational change. Faculty members may see distance education as a means to address student needs and institutional issues. Market and peer pressures also contribute to faculty members' motivation for adoption. However, the institutional vision alone may not be enough to develop distance programs. The institutional plan for distance education will need to address other faculty motivators and barriers.

Technology

Distance education interjects technology into instruction and requires administrators to assess faculty technological competence and to ensure that technology adequately functions. Technology serves as both a faculty motivator and a point of resistance. Their comfort with technology and their perceptions of its value in their work contribute to faculty members' adoption of distance education (Johnsrud, et al., 2005). Faculty members may be driven to develop distance courses because they are motivated to use technology (Betts, 1998; Rockwell, et al., 1999). However, faculty members possess concerns about technology. They fear that technology will diminish the role of education and learning processes and introduce frequent issues into instruction. Faculty are also concerned that technology will diminish their role in the learning process (Bruner, 2007). Factors, such as test security and access to distance education technologies, contribute to faculty hesitance (Peng, 2010). Also, distance education

requires a seamless infrastructure (Murphrey & Dooley, 2000). Faculty members have expressed concern that the technical infrastructure at their institutions may not be reliable enough to support distance education (Schifter, 2000). However, faculty members generally rate technological infrastructure at their institutions as "above average" (Seaman, 2009). Beyond assuring reliable infrastructure, administrators may consider support functions to further enhance faculty members' competence in the use of technology for learning.

Support

Faculty members identify multiple layers of support contributing to their motivation to adopt distance education. In transitioning courses for distance delivery, faculty members require technological and pedagogical know-how. Also, faculty members need administrative assistance to assure that their concerns are addressed and that their efforts are fruitful. Lastly, faculty members have identified the need to extend institutional support to students to assure their educational success.

Technical competence and positive perceptions of technological support have been identified as important motivational factors for faculty. Faculty feel that technical assistance and training aid their efforts in developing distance offerings (Orr, et al., 2009). Furthermore, they want to be supported in their course development and in their use of technology (Betts, 1998; Dooley & Murphrey, 2000; Meyer, 2009; Rockwell, et al., 1999; Schifter, 2000). Shea, Pickett, and Li (2005) note that faculty's lack of familiarity with distance technologies and pedagogy does not necessarily prevent adoption. However, faculty members are more likely to transition to distance education if they believe they possess adequate technology skills and that technology is important to

their work; they are motivated to use technology; and they use technology in their professional work (Johnsrud, et al., 2005). Similarly, technical support was rated highly as a positive influence in moving online and in increased satisfaction in teaching via distance education (Pinkerton, 2008; Shea, et al., 2005). Also, faculty members who have positive perceptions of the assistance they receive in implementing distance education are more likely to recommend teaching at a distance to their colleagues (Shea, et al., 2005).

In addition to the technical considerations for distance education, faculty members require support in pedagogy and learning. Professional staff, including instructional designers, should be appointed to assist faculty members in developing and/or translating face-to-face courses to distance formats (Johnsrud, et al., 2005; Jones, 2008, November; Kampov-Polevoi, 2010; Murphrey & Dooley, 2000; Shea, et al., 2005). Training should also be taken into account (Shea, et al., 2005). Furthermore, these training opportunities must move beyond the technical and include training in pedagogy and student engagement (Jones, 2008, November; Morrow, 2010; Murphrey & Dooley, 2000). Training initiatives should also include opportunities for mentoring and peer support (Jones, 2008, November). Faculty members who have experience teaching at a distance should be incorporated into training and mentoring. Hearing from other faculty members provides a better understanding of distance education and demonstrates its legitimacy and compatibility with academic standards (Shea, et al., 2005).

Faculty members have also recognized the role of administration in support of their efforts. Because technological innovation moves at a significantly faster pace than higher education's bureaucratic processes, faculty and the administration need to work together to assure the unfettered progress of distance education initiatives (Styron, et al.,

2009). Administrative leadership must be actively engaged in the development process and accessible to address faculty questions and concerns (Hummell, 2008; Parthasarathy & Smith, 2009). Administrative concerns of importance to faculty include compensation and intellectual property (Kampov-Polevoi, 2010; Parthasarathy & Smith, 2009).

Lastly, faculty members have expressed the need to extend support functions to students enrolled in distance programs. Support functions for students include technical support, access to software, orientation to learning at a distance, and the ability to access library resources and to order textbooks online (Murphrey & Dooley, 2000). Furthermore, institutions and learners should maintain open communication regarding distance courses to identify the resources and training students need to successfully participate in distance education programs (Hummell, 2008).

Faculty members have identified multiple levels of support required for their participation in distance education. Technical infrastructure and instruction in the use of technology are only a portion of the support components administrators need to consider in distance development. Beyond the technical considerations, support and training functions should also provide resources and professional development to assist faculty members in understanding the pedagogy of teaching at a distance and to connect them with peers and mentors. Faculty members also need a direct conduit to access key administrators who can address concerns and questions regarding distance education. Lastly, faculty expressed the need to extend support functions to students to assure their success as distance learners.

Time and Workload

An inhibiting factor for faculty is the perceived amount of time and effort it takes to develop and teach distance education courses. The additional development time required is one of the most cited reasons for faculty resistance (Seaman, 2009). When compared with their face-to-face courses, faculty members perceive distance education courses as requiring significant effort to develop and that teaching them is more time-intensive (Bruner, 2007). Both faculty members who have taught distance education courses and those who have not express general agreement regarding the time involved in developing and teaching these courses (Schifter, 2000). Given the time involved, faculty have identified the lack of release time and concerns over workload as negatively impacting their participation in distance education (Betts, 1998; McCarthy & Samons, 2009). Furthermore, the time involved in developing distance education courses may mean taking time away from other job duties, such as research (Rockwell, et al., 1999). While the time involved negatively impacts faculty adoption, Shea, Pickett, and Li (2005) found that faculty members who reported spending more time on their distance education courses expressed more satisfaction with teaching and learning at a distance. However, faculty want more time to develop their courses (McCarthy & Samons, 2009). As a potential solution to time and workload issues, institutions offer incentives.

Incentives

The provision of incentives for the development of distance education courses and programs, while well-documented, has mixed results. The ability of the institution to provide incentives and compensation for the development of distance education courses is also noted among points of significant resistance (Delaney, 2010; Dooley & Murphrey,

2000). Inadequate compensation for development, the inability to count distance education toward tenure and promotion, and recognition of online teaching by prospective employers may build resistance to distance education (McCarthy & Samons, 2009; Seaman, 2009). Incentives and compensation require adequate funding (Styron, et al., 2009) and may take the form of increased pay, merit pay, release time, altered workload, mini-grants, telecommuting time, faculty recognition, and consideration in tenure and promotion (Bruner, 2007; Jones, 2008, November; L. L. Maguire, 2005; Meyer, 2009; Murphrey & Dooley, 2000; Pinkerton, 2008; Rockwell, et al., 1999). For junior faculty members, tenure and promotion are especially important (Styron, et al., 2009). While these younger faculty members express interest in teaching at a distance, they often avoid it because tenure and promotion processes often do not recognize teaching via distance education (Shea, 2007). Financial incentives and course load reductions have been found to be more motivational for younger faculty members in spurring distance development (Bruner, 2007). However, faculty, compared to administrators, ranked compensation and incentives much lower than other motivational factors (Schifter, 2000). Similarly, Shea (2007) found that compensation and incentives were not major motivators for faculty members to teach at a distance. There has also been found no significant difference between faculty members teaching at a distance and those who were not in terms of financial incentives, suggesting other motivational factors might be involved (Pinkerton, 2008). Recommendations for altering compensation and incentive structures to combat some of the resistance include updating promotion and tenure reward structures at institutions to include distance development and teaching and

to use policy and compensation to demonstrate distance education as a priority (Johnsrud, et al., 2005; Shea, 2007).

Quality

Quality concerns may result in faculty resistance, but experience with distance education may counter negative perceptions of quality. The quality of instruction offered via distance education is a key concern for faculty (Bruner, 2007; Dooley & Murphrey, 2000; Seaman, 2009). Faculty perceive distance education as inferior to face-to-face instruction (Seaman, 2009). The difficulty in reproducing face-to-face classroom dynamics through distance delivery and the management of both the technology and the teaching contribute to this perception (Peng, 2010). Also, faculty are concerned that distance education diminishes the student's connection to the institution (Bruner, 2007). However, Seaman (2009) found that faculty members who feel that distance education is inferior have not taught at a distance and that despite negative perceptions of distance education, these faculty members still have recommended distance education courses to students. Likewise, Johnsrud, Harada, and Tabata (2005) noted that faculty members who have opportunities to try distance education and who see the results are more likely to participate in initiatives and may actually have more positive perceptions of the quality of distance education. Similarly, faculty members who have taught distance education courses feel that the quality is similar or superior to face-to-face (Seaman, 2009). As a means of assuring the quality of an institution's offerings, Hirning (2009) advocates convening a faculty body, including distance education faculty and supporters, to address pedagogical issues. Underlying many of the faculty concerns for quality are student concerns.

Student Concerns

Faculty perceptions of quality involve consideration of the learners. The faculty rationale for embracing distance education, particularly providing flexible learning opportunities and enhanced learning outcomes, highlights a desire to address student needs (Betts, 1998; Bruner, 2007; Dooley & Murphrey, 2000; Kampov-Polevoi, 2010; Peng, 2010; Pinkerton, 2008; Rockwell, et al., 1999; Styron, et al., 2009). Furthermore, faculty members are concerned with student outcomes, access to the online environment, and student ability to participate in distance courses (Bruner, 2007; Seaman, 2009; Shea, 2007; Styron, et al., 2009). In terms of course technologies, faculty members want technologies that assure student engagement and the ability to increase socialization and interaction (Styron, et al., 2009).

Faculty members' concerns, particularly their motivators and barriers, should be considered in the development of distance education initiatives. Faculty members will be primarily responsible for the development and teaching of distance courses, and their buy-in is critical in each initiative's success. Faculty members may be intrinsically motivated to participate in distance education, choosing to get involved because of curiosity, personal goals, or the desire to meet student needs. Similar to administrators, the faculty rationale for providing distance instruction is to meet student demand, to account for institutional factors, and to respond to market pressures. Faculty reluctance to participate in distance education includes technology, time, lack of support, quality, and student concerns.

Pennsylvania State-Owned Schools and Distance Education

State-owned institutions in Pennsylvania are facing challenges similar to those described at the beginning of Chapter II. In recent years, state-owned institutions have experienced budget cuts, requiring cost-savings measures and the implementation of initiatives to generate revenues. Likewise, declines in high school graduates are forcing institutions to seek enrollments from other sources. Distance education has been adopted as a strategic priority to cope with these pressures and to continue to fulfill the Pennsylvania State System of Higher Education's mission of increasing access to affordable educational opportunities in Pennsylvania.

According to data extracted from the National Center for Education Statistics' College Navigator (2012), the state of Pennsylvania has 44 public four-year institutions. Of these institutions, 14 schools make up the Pennsylvania State System of Higher Education (PASSHE). PASSHE was established through legislative action in 1983, bringing together the 14 state-owned institutions under one system (Pennsylvania Department of Education, 2012). The Fall 2010 headcount enrollment was 119,513 students (Pennsylvania State System of Higher Education System Research Office, 2012).

PASSHE's current mission emphasizes the system's dedication to affordable education and responsiveness to local, regional, and national academic needs (Pennsylvania State System of Higher Education, 2012a). The PASSHE Board of Governors adopted a series of strategic initiatives designed to enact the system's mission. The strategic initiatives are intended to guide PASSHE and its institutions in the development of a system-wide strategic plan and have also been connected to funding

initiatives. They highlight the need for PASSHE and its institutions to be transformational in the areas of students and the learning environment, the provision of human and financial resources, university-community relations, and the needs of Pennsylvania in terms of public policy and state-wide initiatives (Cooper, 2011).

In recent years, state funding for post-secondary education, including funding for PASSHE schools, has decreased. Meanwhile, tuition rates have risen, as institutions work to address shrinking resources and increased costs. Total state support for higher education in Pennsylvania decreased by 15.2% between fiscal year 2007 and fiscal year 2012 (Palmer, 2012). Between academic years 2000-2001 and 2011-2012, PASSHE undergraduate tuition rates increased 65%. Over that same period, the total PASSHE appropriations decreased by 13% (Pennsylvania State System of Higher Education, 2012a). For fiscal year 2012-2013, the state's proposed budget called for an overall 20% reduction in the funding for higher education, including a 20% reduction in the funding for the state's system of higher education (Corbett, 2012). However, in the final approved 2012-2013 budget, the PASSHE appropriation was maintained at $412.8 million, the 2011-2012 budget amount (Governor's Budget Office, 2012). Given the history of budget cuts for higher education in Pennsylvania, it is estimated that state appropriations could reach zero by 2038, twenty years ahead of original estimates (Mortenson, 2012). The decline in state funding will require institutions to take measures to control costs and seek new ways to generate revenues.

PASSHE has responded to cuts in the state appropriation through cost-saving measures. Between July 2008 and February 2012, PASSHE discontinued 24 programs and identified 108 programs to be placed on moratorium. A program placed on

moratorium may not admit new students and may either be reinstated or discontinued contingent upon redesign. PASSHE schools have discontinued low-enrolled programs and combined academic offerings. Another 61 programs were reorganized through redesign, changes in degree designation, or mergers with other programs and tracks. Furthermore, PASSHE approved 23 new programs, some of which are offered via distance education, and have listed 27 additional programs as under development (Pennsylvania State System of Higher Education, 2012a).

In addition to fiscal challenges, Pennsylvania faces declining high school graduation rates through 2015 according to enrollment projections. For the 2010-2011 academic year, there were 170,441 high school seniors. By the 2013-2014 academic year, this number is projected to be just over 140,000 high school seniors (Pennsylvania Department of Education, 2011). For Pennsylvania institutions, this means a smaller pool of in-state residents from which to draw undergraduate enrollments. Within PASSHE, traditional students account for almost 90% of the students enrolled in state system schools, while almost 10.5% are non-traditional students (Pennsylvania State System of Higher Education System Research Office, 2012). This will require all of Pennsylvania's institutions to compete for enrollments or to seek out enrollments from other sources.

Distance education has been noted as one of Pennsylvania's strategic priorities. In the state's Master Plan for Higher Education, distance education was noted as one of the key issues to be addressed, particularly to improve efficiency and effectiveness of post-secondary education and to increase access for rural and working adult populations (Commonwealth of Pennsylvania State Board of Education, 2005). According to its strategic initiatives, PASSHE needs transformation in "how, when, and where learning

occurs" (Pennsylvania State System of Higher Education, 2012b). "Employing technology and designing facilities to enhance teaching and learning" is also one of the goals cited in PASSHE's strategic initiatives (Pennsylvania State System of Higher Education, 2012b). PASSHE is engaged in some development of distance education programs, as referenced in its listing of new programs in the 2012-2013 appropriation request (Pennsylvania State System of Higher Education, 2012a). Additionally, PASSHE has launched PA Universities Online, a website listing the distance education programs and courses offered by PASSHE universities (Pennsylvania State System of Higher Education, 2011).

According to the PA Universities Online website, each of the 14 institutions offers some form of distance education. For summer term 2012, the institutions had 1,128 courses available via distance education across 13 of the 14 PASSHE institutions (California University of Pennsylvania was not listed). Institutions offer 103 degree programs via distance education, 73 (71%) of which are offered entirely online.

In light of budget cuts and declining enrollments, PASSHE has placed value on the development of distance education among its 14 state institutions. Distance education has been adopted as a strategic priority for PASSHE institutions. Likewise, each of the 14 state schools is engaged in some form of distance development.

Summary

Given the increasing pressure for institutions to develop the capability for distance education, administrators, including provosts, need effective strategies to plan and implement distance education initiatives. The combined influence of technology, changing learner demographics and demands, and an increasingly competitive and global

higher education market have made it nearly impossible for institutions to ignore distance education. The failure to institute distance education, perhaps, may threaten the survival of some institutions. State-owned institutions in Pennsylvania are experiencing similar pressures, including the need to find new ways to generate revenues and to compensate for declines in resident traditional-age students. At the same time, cost-saving measures have resulted in the discontinuation of some programs and the redesign of others. This has similarly led the Pennsylvania State System of Higher Education to look to distance education as a strategy to counter these challenges.

Provosts have been identified as playing a critical role in distance education initiatives. The role of the provost as identified in the research includes responding to external influences while addressing internal challenges, developing and maintaining the integrity of the curriculum, and empowering faculty and staff to innovate. To facilitate institutional change, provosts communicate expectations, coordinate efforts, allocate resources, build consensus, solicit participation, and obtain buy-in for institutional initiatives.

While administrators, including provosts, have been noted as important to the success of institutional distance education initiatives, studies examining the prevalence of distance education research topics have noted the lack of attention to administrative issues. While the classification schemas applied in the studies varied, each noted that topics related to instructional design, pedagogy, and student concerns outweighed studies related to administrative practices (Davies, et al., 2010; Lee, et al., 2004; Zawacki-Richter, et al., 2009). Some studies have examined administrators' roles and made recommendations for strategies to plan and implement distance education initiatives. The

majority of these studies are descriptive, highlighting the strategies that have been used at single institutions or in small groups of institutions. Two studies conducted on a national scale (Abel, 2005a; McCarthy & Samons, 2009) made more generalizable observations, resulting in recommendations for administrators involved in distance education initiatives. While each of these studies produced similar results, they only examined institutions deemed successful in their distance education initiatives (based primarily on enrollment growth, student outcomes, and student satisfaction). The studies do not, however, explore the application of the recommended strategies at institutions that have not achieved the same levels of success, thus making it possible to make observations about the impact of various strategies. Comparing the use of strategies among institutional levels of implementation extends this research.

The ability of administrators to involve faculty and address motivators and barriers also must be considered in distance development. Abel (2005a) notes that faculty buy-in is critical in distance education program development and that initiatives require a combination of top-down and grass-roots efforts. Thus, the perspectives of faculty members, given their role in curriculum and the development and teaching of distance courses, must be sought and their concerns addressed.

The research regarding administrator practices and faculty motivators and barriers align in several key areas, suggesting a common set of practices for administrators to apply in distance education initiatives. The dimensions of practice include vision, technology, support, compensation/incentives, funding, policy, quality, and student concerns. Administrators and faculty generally agree in terms of the vision, technology, support, and compensation/incentives dimensions. Funding and policy are concerns

mainly highlighted in the literature regarding administrator practices. This could be attributed to the role of administrators in developing institutional policy, managing budgetary matters, and funding initiatives. Similarly, in the research regarding faculty motivators and barriers, faculty members noted concerns over quality and the ability of students to participate in distance education. These concerns reflect the faculty role as custodians of curriculum and as the institution's frontline support of students in teaching and learning. For administrators, quality and student concerns form two additional areas to address in distance initiatives.

A shared vision for institutional change must be carefully aligned with the institution's mission and widely disseminated to obtain buy-in from stakeholders. Faculty and administrators generally agree on the reasons for developing distance education programs. Both administrators and faculty highlight the importance of developing distance programs to address the needs of students and their communities by providing flexible learning opportunities. Additionally, both groups acknowledge the external pressures (e.g., competition and student demand) requiring institutions to consider distance education as part of the institutional strategy. In crafting the vision for distance education, it is recommended that administrators consider the viewpoints of their constituents. Subsequently, communication and wide dissemination to all stakeholders establishes the importance of the vision as a strategic priority.

Both the faculty and the administrators literature noted the importance of establishing a reliable infrastructure to support distance education. Administrators are responsible for assuring that technologies are kept current and made available to both faculty and students. Meanwhile, faculty members noted technology as both a motivator

and a barrier. Some faculty members are driven to adopt distance education because they are motivated to work with technology; others have expressed hesitance, fearing that technology will create issues in instruction, including diminishing the role of the instructor and stifling student interaction. Establishing reliable infrastructure and assuring the provision of a variety of distance delivery tools may address concerns regarding distance technologies. Meanwhile, the role of technology in instruction may be addressed through support functions.

Agreement also exists that administrators need to assure multiple layers of support in the development and implementation of distance programs. Support includes, not only technical support for faculty and students, but also design, production, peer, administrative, and student support. The interjection of technology into instruction requires faculty members to understand the role of technology and the consideration of new pedagogical models. Faculty confidence in the use of technology has been noted as a motivator in the adoption of distance education. The provision of technical support and training in technology and pedagogy, as well as development support from instructional designers and media experts, are among the recommended support functions. Furthermore, peer-to-peer support in the form of mentoring, the sharing of teaching experiences, and the discussion of effective teaching techniques reinforces training and enables faculty to enhance instruction. To further support academic departments and faculty members engaged in distance development, direct access to administrators who can respond to questions and concerns has also been recommended. Lastly, concerns for student success require that administrators consider the extension of support functions to

students enrolled in distance programs. Recommended student services include technical support, student orientation, library services, financial aid, and bookstore access.

The time involved in developing distance programming has required administrators to consider a variety of incentives and compensation methods to reinforce faculty participation. While the literature notes that incentives and compensation have mixed results in encouraging faculty to adopt distance education, the provision of such rewards continue to be standard strategic practice. Potential incentives and compensation may include extra pay, the consideration of distance education in tenure and promotion, and altered workload or release time to develop distance courses.

Vision, technology, support, and compensation and incentives areas demonstrated a great amount of consistency among the recommended administrator practices and the faculty motivators and barriers literature. Policy and funding represent two divergent dimensions. This divergence may be reflective of a perception that administrators have primary responsibility in these two areas. Policy recommendations, however, do stress the role of faculty members in policy development. Involving both faculty members and students in the policy-making process provides perspectives that may not have been considered or ignored. Likewise, inclusion in policy-making processes encourages faculty buy-in and involvement in distance education. While there has been little agreement on the areas in which policy should be developed, both administrators and faculty members acknowledged intellectual property as one area of acute concern. Lastly, policy, while it can aid in the development of distance education, may also create restrictive conditions and barriers. The policy-development process requires careful consideration so that it supports distance education growth and integration into the

institutional structure. For example, policies supporting distance education may treat it the same as face-to-face instruction and remove residential requirements and establish rolling admissions. Also, assuring the funding of distance education initiatives has been noted as an important administrator consideration. With regard to funding, distance education initiatives require the establishment of technological resources (e.g., infrastructure, hardware, and software) and human resources (e.g., compensation for faculty and the hiring of technical staff), which require financial support.

Similar to policy and funding in the research regarding administrators, the faculty motivators and barriers research identified two divergent areas—quality and student concerns. Faculty members maintain the curriculum and are the direct point of contact for students, thus making concerns for quality and students a logical faculty consideration. In terms of quality, faculty members want students to feel connected to the institution and to have the ability to interact with their fellow students and the instructor in much the same ways as they do in the classroom. As a means of maintaining quality in instruction, the faculty literature recommends forming a body comprising instructors teaching at a distance to assess and address quality issues. Quality considerations align closely with faculty concerns for students and their ability to participate successfully in distance education. Faculty members recommend practices that assure student access to the technology and that support their participation in distance education (e.g., technical support and student orientation). A key consideration to be addressed under student concerns is the assessment of student outcomes. Given the quality and student considerations highlighted among the faculty motivators and barriers, administrators

involved in distance initiatives must develop a means to address pedagogical practices, assess quality and outcomes, and to support students.

Building on the previous research, the following Distance Educator Administrator Practices Framework provided the basis of this study. The framework includes the dimensions of vision, technology, support, and compensation/incentives, which were noted as the areas of greatest agreement between the faculty and administrators literature. In considering the areas of divergence, policy and quality practices have been incorporated into the framework as independent dimensions, while the practices suggested in the funding and student concerns areas have been incorporated into the vision and support dimensions respectively. Funding was integrated into vision because of its importance in the planning stages of distance initiatives. Recommendations to provide students with training and assistance with technology fit well under the support dimension. The resulting framework is shown in Table 1.

Table 1

Distance Education Administrator Practices Framework

Dimension	Administrator Practices
Vision	• Involve stakeholders in the development of the vision for distance education. • Establish a clear vision for distance education. • Communicate the distance education vision to stakeholders. • Assure funding for distance education initiatives.
Technology	• Establish reliable technological infrastructure. • Assure faculty access to learning tools. • Assure student access to learning tools. • Create a mechanism for the continual evaluation and consideration of course technologies.
Support	• Provide technical support for faculty. • Provide technical support for students. • Provide instructional design support for faculty developing courses. • Provide faculty training in the use of distance education technologies. • Provide faculty training in distance education pedagogy. • Encourage opportunities for peer support (e.g., peer mentoring, faculty-to-faculty training). • Ensure an administrative response to faculty questions and concerns. • Provide student support services (e.g., bookstore, library, financial aid). • Provide training to students in how to participate in distance education.
Compensation/ Incentives	• Compensate faculty for distance education development. • Provide alternate work schedules for distance education faculty. • Consider distance education in tenure and promotion.
Policy	• Develop institutional policies in support of distance education. • Seek faculty and student input in the development of policy. • Create a clear policy on faculty intellectual property and distance education.
Quality	• Develop a plan for the ongoing evaluation and continuous improvement of distance education. • Involve faculty in distance education assessment.

Because this study dealt with perceptions, faculty involvement in distance education and faculty years of service were also considered. These factors have been shown to influence faculty attitudes toward and participation in distance education. First, faculty involvement in distance education has been linked to more positive views of it as a means of delivering instruction. For example, faculty are more likely to participate if

they see the value of distance education, have a desire to develop professionally, or want to work with technology (Betts, 1998; Kampov-Polevoi, 2010; Peng, 2010; Pinkerton, 2008; Schauer, Rockwell, Fritz, & Marx, 2005; Schifter, 2000; Shea, 2007). Furthermore, faculty who have participated in distance education demonstrate more positive perceptions of distance education (Johnsrud, et al., 2005; Shea, 2007). Likewise, perceptions might also be influenced by the amount of time faculty spend in developing courses, with more time spent correlating highly with positive perceptions (Shea, 2007). Second, faculty years of service, in addition to involvement, also may influence their opinions regarding distance education. It has been noted that younger faculty, while holding positive perceptions of distance education, may be reluctant to participate because distance education may not count toward tenure and promotion (Shea, 2007). Meanwhile, Seaman (2009) found that faculty with six to nine years of teaching experience were more likely to be teaching distance courses, while faculty with 10 to 19 years of teaching experience were more likely to have taught distance courses in the past. However, it should be noted in the Seaman study the percentages of faculty participating in distance education did not greatly vary across the categories of years of experience.

The researcher developed a survey to examine faculty perceptions of their provosts' use of the vision, technology, support, and incentives/compensation strategies of the Distance Education Administrator Practices Framework. Survey results were used to compare faculty perceptions among low-, moderate-, and high-implementation institutions in the Pennsylvania States System of Higher Education. The methodology applied in the study is explained in further detail in Chapter III.

CHAPTER III

METHODOLOGY

This study surveyed faculty at Pennsylvania state-owned institutions to determine their perceptions of their provosts' use of distance education planning and implementation strategies. As highlighted in Chapter II, the research in administrator practices and faculty motivators and barriers have produced a number of recommendations for strategies to guide administrators, including provosts, in managing distance education initiatives. A framework based on these recommendations was used to develop the Distance Education Administrator Practices Survey. Faculty members from 11 of the 14 Pennsylvania State System of Higher Education (PASSHE) universities participated in the study. The faculty members responded to items that assessed their perceptions of their provosts' utilization of strategies in the vision, technology, support, and incentives/compensation dimensions of the framework. In conducting this study, the researcher intended to answer the following questions:

RQ1. Is there a statistically significant difference among faculty perceptions of the provosts' use of planning and implementation strategies at Pennsylvania post-secondary institutions demonstrating low, moderate, and high levels of distance education implementation?

RQ2. Is there a statistically significant difference among faculty perceptions of the provosts' use of vision at Pennsylvania post-secondary institutions demonstrating low, moderate, and high levels of distance education implementation?

RQ3. Is there a statistically significant difference among faculty perceptions of the provosts' provision of distance learning technologies at Pennsylvania post-

secondary institutions demonstrating low, moderate, and high levels of distance education implementation?

RQ4. Is there a statistically significant difference among faculty perceptions of the provosts' provision of support functions for distance education at Pennsylvania post-secondary institutions demonstrating low, moderate, and high levels of distance education implementation?

RQ5. Is there a statistically significant difference among faculty perceptions of the provosts' provision of incentives/compensation for faculty participation in distance education at Pennsylvania post-secondary institutions demonstrating low, moderate, and high levels of distance education implementation?

Setting of the Study

PASSHE was selected as the locus of the study. By examining faculty perceptions at the state system universities, the researcher aimed to control for extraneous factors related to institutional structure. The PASSHE schools are controlled at the state level and receive a portion of their funding from appropriations from the state of Pennsylvania. Distance education has been noted as a strategic priority of both the Pennsylvania Department of Education and PASSHE (Commonwealth of Pennsylvania State Board of Education, 2005; Pennsylvania State System of Higher Education, 2012b), and all 14 state-owned institutions are engaged in the development of distance education. Eleven of the 14 institutions participated in this study. Two if the institutions opted to not participate . Meanwhile, one institution could not identify the individual responsible for authorizing external research.

Sample Population

To collect faculty perceptions of provosts' utilization of the selected planning and implementation strategies from the Administrator Practices Framework, a sample representative of the distribution of full-time tenure-track faculty by PASSHE institution was surveyed. Full-time tenure-track faculty members were identified as the participants for the study because they were considered more likely to possess a vested interest in and to participate in curricular development, strategic planning, and other internal organizational processes related to distance education. Also, faculty members who were both involved and not involved in distance education were included in the sample to provide a more comprehensive assessment of the provost's ability to engage faculty members across the institution in distance education initiatives. Faculty members were to be randomly sampled from each institution in proportion to the institution's representation in the total population.

Operationalization of Independent Variables

The researcher sought to compare the differences that exist between faculty perceptions of the provost's use of planning and implementation strategies by institutional levels of implementation and faculty member gender, years of service, and involvement in distance education. Each of these independent variables must therefore be operationalized and are defined in the sections that follow.

Levels of Implementation

The differences among faculty perceptions at institutions demonstrating varying levels of implementation were of inherent concern in this study. The planning and implementation strategies recommended in the literature emphasize removing barriers

and fostering the institutional capacity for distance education programs. Therefore, comparisons of faculty perceptions among institutions demonstrating low, moderate, and high levels of implementation could enable the researcher to identify patterns of practice that may have contributed to institutional development of distance education programs.

For each PASSHE school, the ratio of online programs to the total number of programs offered was determined and used to categorize each institution as having a low, moderate, or high level of implementation. The total number of programs at each institution was extracted from data provided by PASSHE. Information regarding the total number of online programs was obtained from the PA Universities Online website (www.pauniversitiesonline.edu). The number of online programs was then divided by the total number of programs at each institution and rounded to the nearest whole number to arrive at a percentage. The 14 PASSHE institutions were then listed in order from the highest percentage to the lowest. Institutions with 3% or less of their programs offered via distance education were clustered in the low-implementation category. Institutions with 4% to 7% of their programs offered via distance education were classified as moderate implementation. Lastly, institutions with 8% or more of their programs offered via distance education were placed in the high-implementation category. Table 2 summarizes the institutional rankings.

Table 2

Institutions Ranked by Levels of Implementation

Level of Implementation	Institution	Total Programs	Distance Education Programs	Percentage
High	California	141	15	11%
	Clarion	210	22	10%
	Edinboro	157	15	10%
	Slippery Rock	158	13	8%
	Lock Haven	90	7	8%
Moderate	Shippensburg	147	6	4%
	Mansfield	123	5	4%
	Indiana	191	7	4%
	Bloomsburg	141	4	3%
Low	East Stroudsburg	130	2	2%
	Millersville	165	2	1%
	West Chester	208	2	1%
	Kutztown	133	1	1%
	Cheyney*	40	0	0%

*Cheyney University, while not offering distance education programs, did offer some courses via distance education and was therefore included.

Gender

In addition to providing descriptive data about the study sample, gender was used to identify if differences existed between male and female attitudes toward the provost's use of planning and implementation strategies.

Years of Service

A faculty member's years of service may impact his or her involvement and perceptions of distance education. While holding positive perceptions, faculty early in their careers may not participate in distance education because of an emphasis on tenure and promotion. Whereas, faculty later in their careers may hold negative perceptions and or be apathetic toward distance education. To make comparisons among faculty at these

varying chronological points in their careers, years of service was divided into three segments—less than five years, six to 15 years, and 16 years or more.

Faculty Involvement

According to the literature, faculty who participated in distance education possessed more positive perceptions of it as means of delivering instruction. In this study, comparisons between the perceptions of faculty who indicated that they were involved and those of faculty who indicated that they were not involved in distance education were also of interest. For the purposes of study, faculty who were involved in distance education were defined as those who had developed and/or taught a distance education course. Faculty who indicated that they had not taught and/or developed a distance education course or who indicated they would never develop and/or teach a distance education course were categorized as not involved in distance education.

Faculty Discipline

Lastly, faculty were asked to identify their academic disciplines for the purposes of gathering descriptive data about the study population. The academic disciplines present in the state system were provided by the Pennsylvania State System of Higher Education (PASSHE). The researcher used an *a priori* code to narrow the number of options to be used on the survey. To further simplify data analysis, the code included a set of categories into which responses would be placed after the survey was administered. The codes are available in Appendix A.

The Survey Instrument

A survey based on the Distance Education Administrator Practices Framework was developed to collect faculty perceptions. The survey included demographic, Likert-

scale, and open-ended items. Demographic items were intended to describe the survey respondents and to classify responses by independent variables (e.g., levels of implementation, gender, years of service, and faculty involvement). The Likert-scale items were designed to assess faculty perceptions of the provost's application of strategies in the vision, technology, support, and incentives/compensation dimensions to their institution's distance education initiatives. These four dimensions were selected for exploration in this study because both faculty and administrators cited their importance in planning and implementing distance education programs. Likert-scale items used a five-point scale from “strongly disagree” to “strongly agree,” with a mid-point of “unable to judge,” to rate the provosts’ use of the selected strategies. The open-ended items were designed to solicit information from participants regarding their feelings toward distance education and to elicit responses that may provide information for future studies. Specifically, these questions asked respondents to describe their general attitudes toward distance education and to identify the titles of individuals whom they felt had been most influential in leading distance education at their institutions. Table 3 highlights the desired specifications of the survey instrument.

Table 3

Table of Survey Specifications

Variable	Number of Survey Items
Level of Implementation	1 item
Faculty Involvement	1 item
Years of Service	1 item
Vision	5 items
Technology	4 items
Support	12 items
Compensation/Incentives	4 items
Title Most Influential in Distance Education	1 item
General Attitude Toward Distance Education	1 item
Total	30 items

Validity

Two panels of experts were employed in the selection of survey items and in judging the content validity of the final survey instrument. Each panel consisted of one expert in distance education, one administrator, and one faculty member. Experts in distance education were chosen because of their knowledge of the field and their involvement in the development of distance education programs. Administrators (e.g., deans) were asked to participate because of their familiarity with the role of the provost in higher education. Lastly, faculty members were included because of their knowledge of research methodologies and their role as the intended respondents to the survey.

The first panel evaluated the acceptability of a pool of researcher-developed demographic, Likert-scale, and open-ended items. The panelists were asked to provide qualitative feedback regarding the form, wording, and clarity of the items. For Likert-scale items, panelists were also asked to rate whether each item represented a favorable

or an unfavorable attitude regarding the provosts' use of distance education planning and implementation strategies on a three-point scale from unfavorable to favorable with an option to choose "unable to judge." Items that did not receive a unanimously favorable or a unanimously unfavorable rating or for which the panelists indicated "unable to judge" were removed from the item pool, and additional items were generated as needed. Iterations of this process continued until the survey specifications were achieved, and the survey was developed.

A second panel was used to establish the content validity of the survey through jury validation. In this validation method, a panel of experts determines that a survey instrument measures what it is intended to measure, assuring both internal and external validity (Buddenbaum & Novak, 2001). Following the procedure described by Reinard (2006), the panel rated the acceptability of each item on the survey using a four-point scale. Items receiving a rating of 1 or 2 were considered irrelevant, and items receiving a 3 or 4 were considered relevant. Total validity of the instrument was determined by dividing the number of items deemed relevant by the total number of items on the survey. The resulting quotient is the Content Validity Index (CVI). A CVI of .85 or better was considered to be acceptable. Qualitative feedback was collected for items deemed irrelevant. The process was repeated until the desired validity rating was achieved or exceeded. An initial pilot version of the survey, which received a CVI of .87 from the panel, was developed and used to conduct item analysis procedures. Following the item analysis, a revised survey instrument was piloted to test reliability. The panel recommended removing two items related to tenure and promotion from the incentives/compensation subscale with the rationale that the provost had little influence

in this area, given the faculty contract. These items were, therefore, eliminated. However, the researcher chose to include the two remaining items related to the provosts' use of compensation and use of alternate workload/release time. After reliability testing, the expert panel's review yielded a CVI of 1.0, indicating content validity.

Reliability

The survey was piloted to assess its internal consistency. An item analysis was conducted to assure that the individual survey items discriminated well between individuals possessing unfavorable attitudes and individuals possessing favorable attitudes. Reliability analysis also was conducted on the overall scale and each of the four subscales representing the four selected dimensions of the Distance Education Administrator Practices Framework.

The item analysis procedure utilized the method outlined by Edwards (1957). A preliminary survey instrument containing 50 scale items based on the framework was administered to a convenience sample of 20 faculty members. The faculty members in this pilot represented multiple institutions and were excluded from the final study sample. Scale items were oversampled in anticipation that some of the items would need to be eliminated because they would either not discriminate well or would not correlate well with the overall scale or within each of the subscales. The correlation method of item analysis described by Murphy and Likert (1938) was conducted using IBM Statistics (SPSS) reliability analysis procedure to select the items that would appear on the final survey instrument. Items with negative item-total correlations or that demonstrated low correlations within each of the subscales were eliminated.

The resulting shortened survey instrument containing a 20-item scale was piloted with an additional 15 faculty members who were excluded from the study sample. Split-half reliability was determined using the SPSS reliability analysis procedure. A Cronbach's Alpha of .70 or greater, indicating fair reliability (Reinard, 2006), was desired. Reliability analysis resulted in a Cronbach's alpha of .918, indicating high reliability. The final version of the survey, including the informed consent, is included in Appendix B.

Ethical Considerations

This research study was conducted with the highest regard for ethical principles. Participation in the study was voluntary, and all data will be kept confidential. A notice of informed consent was presented to respondents prior to completion of the survey instrument. Respondents were notified that by completing the survey they consented to participate in the study and that they could opt out of the study at any time. A copy of the informed consent message has been included with the final version of the survey in Appendix B. Additionally, the study was approved through the Indiana University of Pennsylvania Institutional Review Board (IRB) prior to piloting the survey and prior to data collection. Furthermore, IRB authorization was obtained from all 11 institutions whose faculty participated in the study. In accordance with federal law, all data will be maintained for three years.

Procedures

The 14 schools that comprised the Pennsylvania State System of Higher Education (PASSHE) were selected as the context for the study for their homogeneity, enabling control for institutional characteristics. Each of the 14 PASSHE institutions

were grouped into the low-, moderate-, and high-implementation categories based on each institution's ratio of distance education programs to its total number of programs offered. In total, 11 of the 14 PASSHE schools authorized the researcher to survey their faculty members.

A survey was administered to a sample of full-time tenure-track faculty members randomly selected from each of the participating PASSHE institutions. The study population comprised 4,456 full-time tenure-track faculty members according to a list obtained from PASSHE. Of these, 3,655 represented the participating institutions. Power analyses conducted prior to data collection estimated a required sample of 756 participants (21% of the participating population) for a 3x3 two-way ANOVA with a medium effect and a significance level of .05 and a required sample size of 159 participants (4.4% of the participating population) for a one-way ANOVA with three levels. To assure an acceptable return rate, a total of 2,071 faculty members, were selected. Because institutional level of implementation of distance education was an independent variable in the study, the sample needed to be representative of the study population. To assure that each institution was adequately represented, faculty members at each institution were randomly selected in a proportion equal to the institution's faculty representation in the total population. Table 4 summarizes the breakdown of institutions, their proportion of faculty representation in the population, and the number of faculty to be randomly selected from each.

Table 4

Number of Faculty Sampled by Institution

University	Total Number of Faculty	Proportion of Total Population	Number of Faculty in Sample
Cheyney	67	1.5%	38
Mansfield	160	3.6%	90
Lock Haven	236	5.3%	133
Clarion	256	5.7%	145
California	270	6.1%	153
East Stroudsburg	282	6.3%	159
Edinboro	312	7.0%	176
Millersville	314	7.0%	178
Shippensburg	330	7.4%	187
Slippery Rock	339	7.6%	192
Bloomsburg	375	8.4%	212
Kutztown	420	9.4%	238
West Chester	493	11.1%	279
Indiana	602	13.5%	340
Total	4456	100.0%	2520

Participants were randomly selected from an Excel spreadsheet containing the names of full-time tenure-track faculty organized by institution. Each faculty member was randomly assigned a number from 1 to 4456. Faculty records were then sorted by each institution and subsequently sorted by the numbers from lowest to highest. The researcher then selected faculty members from each institutional grouping in sequential order from lowest number to highest number until the desired sample size for each institution was achieved. This method ensured the random selection of faculty while enabling the researcher to add additional participants as needed.

The survey was distributed electronically via e-mail in the fall of 2013 to the identified full-time tenure-track faculty members at the 11 participating PASSHE

institutions. Participant e-mail addresses were obtained using each institution's online faculty directory. The e-mail message (Appendix C) included a link to the notice of informed consent and the survey. To improve return rates, a reminder e-mail (Appendix D) was sent to non-respondents weekly following the initial administration of the survey. Due to low return rates, the survey was eventually opened to all full-time tenure-track faculty members who were on the list obtained from PASSHE and at participating institutions.

Data Analysis

Analysis of the data used both descriptive and parametric statistics. Following the collection of data, survey responses were reviewed to identify anomalies and remove incomplete questionnaires and invalid responses. Valid survey data were analyzed using IBM Statistics (SPSS). Research results reported the total number of surveys returned and the total number of valid and invalid surveys.

Responses to demographic items were analyzed using descriptive statistics. Demographic items on the survey represented independent variables and were designed to gather information about the study respondents. The demographic items asked respondents to identify their institution (used for categorizing responses into low-, moderate-, or high-implementation institutional categories), gender, years of service, involvement in distance education, and discipline. Each of the variables was analyzed using descriptive statistics. Levels of implementation, gender, years of service, and involvement were also be used as categorical variables for parametric analysis.

Survey responses for Likert-scale items pertaining to faculty perceptions of the provost's application of distance education planning and implementation strategies were

analyzed using parametric statistics to make comparisons among institutional levels and by gender, years of service, and involvement in distance education. Mean responses on the overall scale and each of the subscales were conducted using both two-way and one-way analysis of variance (ANOVA) procedures. The combination of low return rates, unequal group sizes, non-normal distributions, and unequal variances deemed this decision appropriate. The two-way ANOVA provided more rigorous statistical testing and enabled the researcher to test for significant differences among different combinations of independent variables. However, the two-way ANOVA, while robust against violations of the assumptions of normality, can demonstrate increased chances of Type I error when unequal group sizes and variances are present (Reinard, 2006). The two-way ANOVAs were run to determine if possible interaction effects might be present. One-way ANOVAs were also run, given their robustness against violations of the assumption of normality and the existence of alternative tests (Welch and Games-Howell) for data demonstrating unequal variances.

Responses to the open-ended questions were reviewed for common themes and analyzed both qualitatively and quantitatively. Open-ended responses were read, preliminary coding schemes were developed based on the faculty member responses. Responses were then reread and coded according to the schemes developed for the responses for each question. Data were then analyzed quantitatively by identifying the frequency of responses and by classifying the responses by institutional levels of implementation.

Summary

This study explored faculty perceptions of provosts' use of strategies in planning and implementing distance education programs. A survey was administered to faculty in the Pennsylvania State System of Higher Education. Survey data were analyzed to identify if significant differences exist in faculty perceptions of provosts' applications of strategies in the vision, technology, support, and incentives/compensation dimensions of the Distance Education Administrator Practices Framework. Chapter IV presents results of the data analysis described in this chapter.

CHAPTER IV

RESULTS

This study examined faculty perceptions of the provosts' use of distance education planning and implementation strategies. The strategies recommended in the literature were aggregated into the Distance Education Administrator Practices Framework. Faculty members at institutions in the Pennsylvania States System of Higher Education (PASSHE) completed a survey based on the framework that included demographic items, Likert-type attitude scales, and open-ended questions. Survey data was used to classify responses by independent variables (e.g., levels of implementation, gender, years of service, and involvement in distance education) and to assess their provosts' use of the strategies.

Data analysis focused on determining if differences in faculty perceptions existed among institutional levels of implementation, as defined by the percentage of programs each institution offered via distance education, and if additional differences existed by gender, years of service, and involvement. Responses to demographic items were analyzed using descriptive statistics. Scale items, representing the faculty ratings of their provosts' use of planning and implementation strategies in the areas of vision, technology, support, and compensation/incentives, were examined to understand how faculty perceptions differed by institutional levels and by gender, years of service, and involvement in distance education. Lastly, participants responded to open-ended questions regarding their attitudes toward distance education and whom they perceived to be influential in distance education on their campuses. Responses to these items were analyzed for common themes. Frequency counts were used to quantify thematic areas.

Recruitment and Participation

The Distance Education Administrator Practices Survey was distributed to a total of 3,027 full-time tenure-track faculty members over eight weeks between October 22, 2013 and December 15, 2013. The survey was initially distributed to 2,071 faculty members. Of the surveys in this distribution, 63 failed to be delivered, most likely due to email filtering or employment attrition. Due to low returns after four weeks of data collection, the survey was distributed to an additional 1,055 full-time tenure-track faculty members. Of these, 36 surveys failed to be delivered. Throughout the data collection period, faculty members were sent weekly reminders to complete the survey. At the conclusion of the data collection period, a total 543 surveys were returned (a return rate of 18%).

In total, there were 480 valid responses to the survey. Given the attention to overall scale and subscale scores in data analysis, the researcher discarded 62 incomplete survey responses. Additionally, one survey was discarded because the respondent identified himself or herself as an administrator and, thus, was not eligible to complete the survey.

Survey Respondents

Each survey respondent was asked to provide demographic details regarding the institution at which he or she was employed, gender, years of service, involvement in distance education, and academic discipline. This information is summarized in the following sections.

Institutional Level of Implementation

Survey respondents represented the 11 participating PASSHE institutions, all of which were engaged in some distance education. Participants were asked to provide the name of the institution at which they primarily taught. Each institution was coded as low-, moderate-, or high-implementation by determining each institution's proportion of programs online. The majority of respondents (n = 253, 52.7%) represented moderate-implementation institutions, followed by high-implementation institutions (n = 172, 35.8%) and low-implementation institutions (n = 55, 11.5%). The frequency of each level of implementation is summarized in Table 5.

Table 5

Respondents by Level of Implementation

Level of Implementation	*n*	Percentage
High	172	35.8%
Moderate	253	52.7%
Low	55	11.5%
Total	480	100.0%

Gender

Male and female respondents were almost equally represented in the study. Fifty-one percent (n = 245) of the respondents were female, and 49% (n = 235) were male. Representation by gender is summarized in Table 6.

Table 6

Respondents by Gender

Gender	*n*	Percentage
Male	235	49%
Female	245	51%
Total	480	100.0%

Years of Service

Most survey respondents had been in their positions for some time. Nearly 50% (*n* = 236) of the respondents reported having six to 15 years of service, followed closely by 42.9% (*n* = 206) of respondents reporting more than 16 years of service. Thirty-eight faculty members (7.9%) had less than five years of service. Table 7 summarizes the representation of respondents by years of service. The list of faculty obtained from PASSHE was dated, thus resulting in the under-representation of those faculty members with five years or less of service. The list did not include recent full-time tenure-track faculty members hired after 2010.

Table 7

Respondents by Years of Service

Year of Service	*n*	Percentage
< 5 years	38	7.9%
6-15 years	236	49.2%
> 16 years	206	42.9%
Total	480	100.0%

Given the low representation of faculty with less than five years of service, data were recoded to create two categories to enable more meaningful comparisons. The new

categories were faculty with less than 15 and faculty with 16 years or more years of service. Distribution of the recoded variables is summarized in Table 8.

Table 8

Respondents by Years of Service (Recoded)

Year of Service	*n*	Percentage
< 15 years	274	57.1%
> 16 years	206	42.9%
Total	480	100.0%

Involvement in Distance Education

The majority of survey respondents were involved in distance education. Approximately 67% (*n* = 322) of the faculty respondents identified that they had either taught or developed a distance education course or that they planned to teach or develop one in the future. The remaining 32.9% (*n* = 158) of the faculty members responded that they had neither taught nor developed a distance education course or that they did not intend to develop or teach a course via distance education. Table 9 summarizes the representation of respondents by involvement in distance education. Given the study's emphasis on distance education, it is not surprising that the majority of responses came from those involved in distance education. A few of the candidates who opted out of the survey emailed the researcher directly, citing that they knew nothing about distance education or that they did not feel they knew enough to respond.

Table 9

Respondents by Involvement

Involvement	*n*	Percentage
Involved	322	67.1%
Not Involved	158	32.9%
Total	480	100.0%

Discipline

Faculty members were asked to identify their discipline from a list of potential options, with the option to choose "other." Using a list of programs offered provided by PASSHE, the researcher narrowed the list of programs to the 25 program classifications that appeared on the survey. Faculty members were given an additional option to select “other” and to write in disciplines not listed. Based on the list of the 25 potential program options, the research developed an *a priori* coding scheme (Appendix A) to further collapse the categories for analysis. Given the prevalence of adoption among business and education as noted in Allen and Seaman (2011), these two areas were treated as distinct categories. The collapsing of categories per the coding scheme resulted in the eight categories displayed in Table 10.

Table 10

Respondent Disciplines

Discipline	*n*	Percentage
Humanities and Social Sciences	140	29.2%
Education	87	18.1%
Mathematics and Sciences	87	18.1%
Professional Fields	50	10.4%
Business	41	8.5%
Healthcare	36	7.5%
Fine Arts	35	7.3%
Other	4	0.8%
Total	480	100.0%

Participants represented a variety of disciplines from across the academy. Humanities and social sciences, which includes languages, history, psychology, sociology, and anthropology, was the largest contingent represented (n = 140; 29.2%). This corresponds with the findings of Allen and Seaman (2011), in which the humanities and social sciences (tied with computer science) exhibited the greatest level of adoption. Mathematics and sciences (e.g., natural and physical sciences, computer science, and engineering) and education were next at 18.1% (n = 87 each). The professional fields category included fields that did not fit within formal academic disciplines and were more applied in nature. Fields in this area included culinary arts, childhood and family studies, and safety and occupational health professions. Professional fields constituted a little more than 10% (n = 50) of the disciplines in the sample. Business, which was anticipated to be one of the most prevalent disciplines in its use of distance education, only accounted for (n = 41) 8.5% of the respondents in the study. Fine arts, healthcare, and other each accounted for less than 8% of the disciplines represented.

Demographics by Institutional Level of Implementation

To further understand the distribution of respondent characteristics, demographics were broken down by institutional level of implementation. Reviewing the demographic distributions among low-, moderate-, and high-implementation institutions potentially provides some additional information regarding the adoption of distance education at these institutions. Each of these areas is explored in the following sections.

Gender

The distribution of gender was fairly equitable within each of the institutional categories. The distribution of gender by institutional level of implementation is summarized in Table 11.

Table 11

Gender by Level of Implementation

Level of Implementation	Gender	*n*	Percentage
High	Male	80	46.5%
	Female	92	53.5%
	Total	172	100.0%
Moderate	Male	130	51.4%
	Female	123	48.6%
	Total	253	100.0%
Low	Male	25	45.5%
	Female	30	54.5%
	Total	55	100.0%

N=480

Years of Service

Years of service among the institutional levels of implementation were also equitably distributed. As mentioned previously, faculty with less than five years of

service were underrepresented in the study sample as a whole. Similarly, these faculty members made up a relatively low proportion at each level of institutional implementation. In contrast, the ratio of respondents with 6-15 years of service to respondents with more than 16 years of service was almost evenly split at each level of implementation, with largest difference (8.3%) at moderate-implementation institutions to the smallest difference (3.7%) at low-implementation institutions. The distribution of respondent years of service by level of implementation is summarized in Table 12.

Table 12

Years of Service by Level of Implementation

Level of Implementation	Years of Service	*n*	Percentage
High	< 5	9	5.2%
	6-15	86	50.0%
	> 16	77	44.8%
	Total	172	100.0%
Moderate	< 5	22	8.7%
	6-15	127	50.2%
	> 16	104	41.1%
	Total	253	100.0%
Low	< 5	7	12.7%
	6-15	23	41.8%
	> 16	25	45.5%
	Total	55	100.0%

N=480

As was the case in the overall study sample, categories for faculty with less than five and 6-15 years of service were collapsed into a single category. The recoded data show a fairly equitable distribution of faculty members at each level by years of service.

Table 13 summarizes the distribution of each of the two groups at each level of implementation.

Table 13

Years of Service by Level of Implementation (Recoded)

Level of Implementation	Years of Service	*n*	Percentage
High	< 15	95	55.2%
	> 16	77	44.8%
	Total	172	100.0%
Moderate	< 15	149	58.9%
	> 16	104	41.1%
	Total	253	100.0%
Low	< 15	30	54.5%
	> 16	25	45.5%
	Total	55	100.0%

N=480

Involvement

Respondent involvement in distance education by institutional level of implementation also demonstrated a larger proportion of respondents who were involved in distance education versus those who were not involved in distance education. The majority of responses from both high-implementation (*n* = 130, 75.6%) and moderate-implementation institutions (*n* = 161, 63.6%) were from faculty who identified themselves as involved in distance education. While the majority of respondents at low-implementation institutions were involved in distance education, the ratio of faculty involved in distance education (*n* = 31, 56.4%) only exceeded those identifying as not involved in distance education (*n* = 24, 43.6%) by 12.8%. The distribution of faculty involved and uninvolved in distance education is summarized in Table 14.

Table 14

Involvement by Level of Implementation

Level of Implementation	Involvement	*n*	Percentage
High	Involved	130	75.6%
	Uninvolved	42	24.4%
	Total	172	100.0%
Moderate	Involved	161	63.6%
	Uninvolved	92	36.4%
	Total	253	100.0%
Low	Involved	31	56.4%
	Uninvolved	24	43.6%
	Total	55	100.0%

N=480

Demographic Summary

Demographic information provided by the survey respondents was used to organize responses according to the independent variables in this study—institutional levels of implementation, gender, years of service, and involvement. The representation of institutional levels was inequitable, with the majority of responses coming from moderate-implementation institutions. Distribution of demographic factors showed responses by gender to be equitably distributed at each level of implementation. By contrast, faculty years of service and involvement in distance education were not equitably distributed. Faculty members with less than 5 years of service were not well represented due to the lack of availability of these names in the mailing list used. Recoding of the years of service data, however, showed fairly equitable distributions of faculty with less than 15 years of service and faculty with 16 or more years of service at each level of implementation. The majority of faculty members at each institutional level

indicated that they were involved in distance education. The faculty respondents also came from a variety of disciplines, of which the humanities and social sciences were most represented.

Attitudinal Measures

To examine their perceptions of their provosts' use of distance education planning and implementation strategies and to make comparisons among low-, moderate-, and high-implementation institutions, faculty members were asked respond to 20 attitudinal items. Each statement represented a strategy from one of each of four dimensions on the Distance Education Administrator Practice Framework—vision, technology, support, and incentives/compensation. Participants rated their level of agreement with each statement, some of which were reverse coded, on a five-point Likert scale. Ratings of 1 or 2 represented unfavorable responses toward the provosts' use of the strategies. A rating of 3 indicated that the respondent was unable to judge the provosts' use of the planning and implementation strategies. Meanwhile, ratings of 4 or 5 represented favorable responses. Each participant's ratings were used to calculate a mean score for the overall scale and for each of the four subscales. The resulting scale and subscale scores became the dependent variables upon which to make comparisons among the independent variables—levels of implementation, gender, years of service, and involvement. Mean faculty responses and standard deviations by institutional level of implementation for each of the 20 scale items are summarized in Tables 15.

Table 15

Scale Item Means by Level

	Level of Implementation					
	High (*n* = 172)		Moderate (*n* = 253)		Low (*n* = 55)	
Scale Item	*M*	*SD*	*M*	*SD*	*M*	*SD*
Solicits faculty input in planning	3.02	1.14	2.90	1.01	2.69	1.29
Solicits student input in planning	2.84	0.88	2.76	0.71	2.76	0.98
Has clearly defined plan	2.92	1.00	2.69	0.93	2.80	1.11
Communicates the plan	2.61	1.08	2.46	1.00	2.47	1.14
Funds distance education	2.92	1.04	2.85	0.99	2.89	1.03
Ensures a reliable network infrastructure	3.58	0.99	3.35	0.99	2.91	1.24
Ensures faculty access to technologies	3.34	1.13	3.08	1.01	3.27	1.22
Ensures student access to technologies	3.40	1.01	3.26	0.85	3.09	0.95
Ensures a means to evaluate technologies	3.12	1.10	2.93	0.95	2.84	1.14
Ensures technical support for faculty	3.52	1.10	3.26	1.06	3.11	1.21
Ensures technical support for students	3.45	1.02	3.26	0.84	3.02	0.92
Ensures instructional design support	3.19	1.23	3.12	1.05	2.95	1.18
Ensures faculty access to technology training	3.60	1.11	3.42	0.99	3.20	1.21
Ensures faculty access to pedagogical training	3.24	1.12	3.06	1.04	2.98	1.27
Encourages peer support	3.21	1.13	3.06	0.92	3.51	0.90
Provides channel to address administrative questions	3.04	1.09	3.01	0.94	2.93	1.05
Ensures a sufficient level of student support services	3.11	0.93	3.06	0.79	2.91	0.91
Ensures student orientation to online learning	2.88	1.06	2.81	0.82	2.33	0.77
Assures faculty are compensated	3.30	1.15	3.34	1.07	3.29	1.20
Provides altered workload and release time	2.10	0.99	2.25	0.96	2.29	1.13

N = 480

Exploration of the raw attitudinal scale data revealed 37 cases for which the researcher questioned the validity of response. In each of these cases, the respondent indicated "unable to judge" for each of the 20 scale items. Because it was unclear if these straight-line responses represented legitimate responses, each analysis was conducted twice—once with and once without the straight-line cases.

A review of the straight-line responses found the majority of responses to belong to faculty with less than 15 years of service who were uninvolved in distance education. The majority of these responses came from moderate-implementation institutions (n = 23, 67.6%), with the remaining cases representing high-implementation institutions (n = 11, 32.4%). Both male and female respondents were equally represented with 17 cases each. The majority of responses represented those with less than 15 years of service (n = 22, 64.7%). Those with 16 or more years of service accounted for the other 35.3% (n = 12). Lastly, the majority of the faculty members with straight-line responses identified themselves as uninvolved in distance education (n = 21, 61.8%), with the remaining 38.2% (n = 13) of the cases representing faculty members involved in distance education. Furthermore, of those identifying themselves as uninvolved in distance education, the majority of these respondents said they had neither naught nor developed a distance education course (n = 19, 55.9%), with the remaining 5.9% (n = 2) saying they would never develop or teach a distance education course.

Table 16 summarizes the means and standard deviations by institutional level of implementation with straight-line responses excluded. Removal of these responses only affected the high- and moderate-implementation scores.

Table 16

Scale Item Means by Level (Straight-Line Responses Excluded)

	Level of Implementation					
	High (n = 161)		Moderate (n = 230)		Low (n = 55)	
Scale Item	*M*	*SD*	*M*	*SD*	*M*	*SD*
Solicits faculty input in planning	3.02	1.18	2.89	1.05	2.69	1.29
Solicits student input in planning	2.83	0.91	2.73	0.74	2.76	0.98
Has clearly defined plan	2.91	1.03	2.66	0.97	2.80	1.11
Communicates the plan	2.58	1.11	2.40	1.04	2.47	1.14
Funds distance education	2.92	1.07	2.83	1.03	2.89	1.03
Ensures a reliable network infrastructure	3.61	1.01	3.38	1.03	2.91	1.24
Ensures faculty access to technologies	3.37	1.17	3.09	1.05	3.27	1.22
Ensures student access to technologies	3.42	1.04	3.29	.89	3.09	0.95
Ensures a means to evaluate technologies	3.13	1.14	2.93	1.00	2.84	1.14
Ensures technical support for faculty	3.55	1.13	3.28	1.11	3.11	1.21
Ensures technical support for students	3.48	1.04	3.28	0.88	3.02	0.91
Ensures instructional design support	3.20	1.27	3.13	1.10	2.95	1.18
Ensures faculty access to technology training	3.64	1.13	3.47	1.03	3.20	1.21
Ensures faculty access to pedagogical training	3.26	1.15	3.07	1.09	2.98	1.27
Encourages peer support	3.22	1.17	3.06	0.97	3.51	0.90
Provides channel to address administrative questions	3.04	1.13	3.01	0.99	2.93	1.05
Ensures a sufficient level of student support services	3.12	0.96	3.07	0.83	2.91	0.91
Ensures student orientation to online learning	2.87	1.09	2.80	0.86	2.33	0.77
Assures faculty are compensated	3.32	1.19	3.38	1.12	3.29	1.20
Provides altered workload and release time	2.04	1.00	2.18	0.98	2.29	1.13

N = 446

Analysis of the scale data was conducted using both one-way and two-way analyses of variance (ANOVAs). The data in the study violated the assumptions of normality and equality of variances underlying ANOVA procedures. While both ANOVA procedures are robust against assumptions of normality, the two-way ANOVA is especially sensitive to violations of the assumption of equality of variances when there are unequal group sizes (Reinard, 2006). This increases the potential of erroneously rejecting the null hypothesis (Type I error), thus affecting the validity of the results. Meanwhile, one-way ANOVA procedures provide alternative tests (Welch and Games-Howell) that enable meaningful comparisons to be made despite violations of the assumption of equality of variances. The results of these analyses were used to draw conclusions about the differences that exist among faculty perceptions of the provosts' use of planning and implementation strategies by levels of implementation, gender, years of service, and involvement in distance education.

Two-Way ANOVA Level x Gender

Two-way ANOVAs were performed on the overall scale and each of the subscales to determine if significant differences existed by levels of implementation and gender. The analyses were conducted for both the complete set of surveys and with the 37 surveys with straight-line responses excluded. Tables of means and standard deviations for the overall scale and each of the subscales for each combination of independent variables (levels of implementation and gender, years of service, and involvement) have been included in Appendix E. For the overall scale and the technology and support subscales, significant differences were found among the levels of implementation. Significant differences were found between male and female respondents on the

compensation subscale. There were no significant differences found on the vision subscale. The results for each of these analyses are discussed in the sections that follow.

Overall Score

The two-way ANOVA conducted on the overall scale score for both the complete set of surveys and the surveys with straight-line responses excluded indicated significant differences among the institutional levels of implementation. Data from the complete set of surveys contained unequal variances, *Levene F* (5, 474) = 2.61, p = .024. Results indicated a significant difference among institutional levels of implementation, F (2, 474) = 3.54, p = .03, η^2 = .01. Similar results were achieved with the surveys with straight-line responses excluded. Data in this group of surveys demonstrated equal variances, *Levene F* (5, 440) = 1.751, p = .122. Significant differences were found among the levels of implementation, F (2, 440) = 3.398, p = .034, η^2 = .01. However, *post hoc* testing indicated no significant differences between institutional levels.

Vision

The two-way ANOVAs for the vision subscale showed no significant differences. The vision subscale solicited information regarding faculty members' perceptions of the provosts' employment of strategies to create, communicate, and fund an institutional strategy for distance education. Mean scores (between 2.5 and 3.4) by levels of implementation and gender reflected the inability of faculty to judge the provosts' use of vision strategies.

Technology

The two-way ANOVAs conducted on the technology subscale showed significant differences among the institutional levels of implementation. The technology subscale

was designed to assess faculty perceptions of the provosts' provision of a technological infrastructure and access to the technological tools to support and deliver distance education. The two-way ANOVA conducted on the complete set of surveys showed unequal variances, *Levene F* (5, 474) = 2.37, p = .038. The main effect of level of implementation was significant, F (2, 474) = 6.205, p = .002, η^2 = .03. A *Bonferroni post hoc* test demonstrated significant differences between faculty perceptions at high-implementation institutions and faculty perceptions at moderate-implementation (p = .013) and low-implementation institutions (p = .009). While significant differences were found, mean scores for low-implementation (M = 3.03), moderate-implementation (M = 3.16), and high-implementation (M = 3.36) institutions all represented the inability of faculty members to judge the provosts' use of technology strategies. The same analysis conducted with the straight-line responses excluded demonstrated equal variances, *Levene F* (5, 440) = 1.765, p = .119. The main effect of level of implementation was significant, F (2, 440) = 6.080, p = .002, η^2 = .03. *Post hoc* testing again showed significant differences between high- and moderate-implementation institutions (p = .018) and high- and low-implementation institutions (p = .008). Mean scores for low-implementation (M = 3.03), moderate-implementation (M = 3.17), and high-implementation (M = 3.39) institutions similarly demonstrated the inability of faculty members to judge the provosts' use of technology strategies.

Support

The two-way ANOVAs for the support dimension indicated significant differences among levels of implementation. The support subscale was designed to measure faculty perceptions of the provosts' assurance of mechanisms to support the

development of distance education. Data for the complete set of surveys did not meet the equal variance assumption, *Levene F* (5, 474) = 3.432, p = .005. The main effect of level of implementation was significant, F (2, 474) = 3.46, p = .03, η^2 = .01. However, a *Bonferroni post hoc* test demonstrated no significant difference among levels of implementation (p = .052). Mean scores for low-implementation (M = 2.99), moderate-implementation (M =3.12), and high-implementation (M = 3.25) institutions indicated that faculty were unable to judge the provosts' use of support strategies. Data with straight-line responses excluded demonstrated unequal variances, *Levene F* (5, 440) = 2.493, p = .030. The main effect level of implementation was significant, F (2, 440) = 3.420, p = .034, η^2 = .01. Faculty perceptions of the provosts' use of support strategies differed significantly between high-implementation (M = 3.27) and low-implementation institutions (M = 2.99), *Bonferroni* p = .048. However, mean scores for all three institutional levels indicated that faculty members were unable to judge their provosts' use of support strategies.

Compensation

The two-way ANOVAs for the compensation dimension indicated significant differences by gender. The compensation subscale was designed to assess the provosts' use of incentives and rewards for participating in distance education. Data for the complete set of surveys demonstrated equality of variances, *Levene F* (5, 474) = 1.135, p = .341. The main effect gender was significant, F (1, 474) = 3.964, p = .047, η^2 = .008. However, the responses of both males (M = 2.86) and females (M = 2.68) indicated the inability to judge the provosts' use of compensation strategies. Data for the surveys with the straight-line responses excluded demonstrated equal variances, *Levene F* (5, 440) =

.600, p = .700. The main effect of gender was significant, F (5, 440) = 3.895, p = .049, η^2 = .01. Again, mean scores for males (M = 2.85) and females (M = 2.63) indicated that they were unable to judge the use of compensation strategies.

Comparisons made on attitude statements by level of implementation and gender for both the complete set of surveys and the surveys with straight-line responses excluded indicated significant differences on the overall scale and the technology, support, and compensation subscales. Significant differences among institutional levels of implementation were indicated on the overall scale and the technology and support subscales. Meanwhile, a significant difference was found between the mean scores by gender. However, mean scores on each of the variables indicated that the faculty members were unable to judge the provosts' use of the strategies.

Two-Way ANOVA Level x Years of Service

Two-way ANOVAs were conducted to determine if significant differences existed by levels of implementation and years of service. Analyses of the overall scale and each of the subscales for the complete set of surveys and the surveys with straight-line responses excluded demonstrated significant interaction effects on the overall scale and the vision, technology, and compensation subscales. No significant differences were found on the support subscale. The results of the analyses on each scale are summarized in the following sections.

Overall Score

Two-way ANOVAs conducted on the overall scale demonstrated significant interaction effects for level of implementation and years of service for the complete set of surveys and surveys with straight-line responses excluded. Data for the complete set of

surveys demonstrated unequal variances, *Levene F* (5, 474) = 2.317, p = .043. Analysis indicated a significant interaction between level of implementation and gender, F (2, 474) = 4.254, p = .015, η^2 = .02. Simple effects indicated significant differences between the perceptions of faculty with less than 15 years of service at high-implementation institutions (M = 3.19) and faculty with less than 15 years of service at moderate-implementation (M = 2.95) and low-implementation (M = 2.79) institutions, F (2, 474) = 7.635, p = .001. While there were significant differences among the mean scores for faculty with 15 years of service at each institutional level, the mean scores at all institutional levels indicated that faculty members were unable to judge the provosts' use of the planning and implementation strategies. Analysis conducted on the surveys with straight-line responses excluded demonstrated equal variances, *Levene F* (5, 440) = 1.789, p = .114, and a significant interaction, F (2, 4440) = 4.236, p = .015, η^2 = .019. Simple effects indicated that the perceptions of the faculty members with less than 15 years of service at high-implementation institutions (M = 3.21) differed significantly from the perceptions of faculty members at the moderate-implementation (M = 2.94) and low-implementation (M = 2.79) institutions, F(2, 440) = 7.544, p = .001. Again, faculty mean scores at all institutional levels indicated their inability to judge (2.5 to 3.4 on the scale) the provosts' use of the planning and implementation strategies.

Vision

Two-way ANOVAs conducted on the vision subscale demonstrated significant interactions between levels of implementation and years of service. The complete set of surveys had equal variances, *Levene F* (5, 474) = 1.655, p = .144. The two-way ANOVA demonstrated a significant interaction between level of implementation and years of

service, F (2, 474) = 3.036, p = .049, η^2 = .013. Simple effects indicated the perceptions of faculty with less than 15 years of service at high-implementation institutions (M = 2.93) differed significantly from faculty with less than 15 years of service at moderate-implementation (M = 2.67) and low-implementation institutions (M = 2.59), F (2, 474) = 4.779, p = .009. However, mean scores at all levels indicated that faculty members were unable to judge (ratings between 2.5 and 3.4 on the scale) the provosts' use of visions strategies. Surveys with straight-line responses excluded demonstrated equality of variances, *Levene* F (5, 440) = 1.681, p = .138, and a significant interaction, F (2, 440) = 3.031, p = .049, η^2 = .013. Simple effects indicated that the perceptions of faculty with less than 15 years of service at high-implementation institutions (M = 2.92) differed significantly from the perceptions of faculty with 15 years of service at moderate-implementation (M = 2.63) and low-implementation institutions (M = 2.59), F (2, 440) = 4.841, p = .008. These results also demonstrated that faculty members were unable to judge the provosts' use of vision strategies.

Technology

Two-way ANOVAs on the technology subscale demonstrated significant interactions for both the complete set of surveys and the surveys with straight-line responses excluded. The complete set of surveys demonstrated equal variances, *Levene* F (5, 474) = 1.931, p = .088, and a significant interaction, F (2, 474) = 3.588, p = .028, η^2 = .015. Simple effects indicated significant differences between the perceptions of faculty with less than 15 years of service at high-implementation institutions (M= 3.45) and faculty with less than 15 years of service at moderate-implementation (M = 3.13) and low-implementation institutions (M = 2.87), F (2, 474) = 9.516, p = .00009. Surveys with

straight-line responses excluded demonstrated equal variances, *Levene F* (5, 440) = 1.390, p = .227, and a significant interaction, F (2, 440) = 4.059, p = .028, η^2 = .016. Simple effects demonstrated significant differences between the perceptions of faculty with less than 15 years of service at high-implementation institutions (M = 3.49) and faculty with less than 15 years of service at moderate-implementation (M = 3.15) and low-implementation (M = 2.87) institutions, F (2, 440) = 9.578, p = .00009. In both analyses, the mean scores between 2.5 and 3.4 on the rating scale indicated that faculty members were unable to judge the provosts' use of technology strategies.

Support

Two-way analyses conducted on the support subscale to make comparisons by levels of implementation and years of service demonstrated no significant differences. Mean scores on all of the independent variables for the complete set of surveys and the surveys with straight-line responses excluded demonstrated scores between 2.5 and 3.4, indicating the inability to judge the provosts' use of support strategies.

Compensation

Two-way ANOVAs comparing compensation scores by levels of implementation and years of service demonstrated a significant interaction. The complete set of survey responses had equal variances, F (5, 474) = 2.316, p = .043, and a significant interaction, F (2, 474) = 6.504, p = .002, η^2 = .026. Simple effects demonstrated that the perceptions of faculty members with 16 years or more of service at high-implementation institutions (M = 2.59) differed significantly from the perceptions of faculty members with 16 or more years of service at moderate-implementation (M = 2.97) or low-implementation institutions (M = 3.00), F (2, 474) = 6.208, p = .002. Furthermore, faculty perceptions of

the provosts' use of compensation strategies differed significantly by years of service at moderate-implementation and low-implementation levels. At the moderate-implementation level, the perceptions of faculty members with less than 15 years of service (M = 2.68) differed significantly from the perceptions of faculty members with more than 16 years of service (M = 2.97), F (1, 474) = 8.172, p = .004. Similarly, at low-implementation institutions, the perceptions of faculty members with less than 15 years of service (M = 2.55) significantly differed from the perceptions of faculty members with 16 or more years of service (M = 3.08), F (1, 474) = 5.941, p = .015. Analysis of the surveys with straight-line responses excluded demonstrated equality of variances, F (5, 474) = 2.316, p = .043, and a significant interaction, F (2, 474) = 6.504, p = .002, η^2 = .026. Simple effects showed that the perceptions of faculty members with 16 or more years of service at high-implementation institutions (M = 2.57) differed significantly from the perceptions of faculty members with more than 16 years of service at moderate-implementation (M = 2.97) and low-implementation (M = 3.08) institutions, F (2, 440) = 6.103, p = .002. Additionally, significant differences by years of service were found at moderate- and low-implementation institutions. At moderate-implementation institutions, the perceptions of faculty with less than 15 years of service (M = 2.64) were significantly different from those of faculty members with 16 years or more (2.97), F (1, 440) = 8.687, p = .003. Likewise, at low-implementation institutions the perceptions of faculty with less than 15 years of service (M = 2.55) were significantly different from the perceptions of faculty members with 16 or more years of service (M = 3.08), F (1, 440) = 3.83), p = .019. However, in both analyses with the complete set of survey responses and with the straight-line responses excluded, the mean scores were between 2.5 and 3.4 on the rating

scale, indicating the inability of faculty members to judge the provosts' use of compensation strategies.

The results of the two-way ANOVAs of faculty perceptions of the provosts' use of the planning and implementation strategies by levels of implementation and years of service demonstrated significant differences that suggest an interaction effect between the two independent variables. Significant interactions were found on the overall scale and the visions, technology, and compensation subscales. While significant differences were indicated, the mean scores on the overall scale and each of the subscales fell between 2.5 and 3.4 on the rating scale, indicating that faculty members were unable to judge the provosts' use of the planning and implementation strategies.

Two-Way ANOVAs Level x Involvement

A series of two-way ANOVAs were conducted on the overall scale and subscales to determine if scores significantly differed by levels of implementation and faculty involvement in distance education for the complete set of surveys and the surveys with straight-line responses excluded. The analyses demonstrated significant differences among the levels of implementation on the overall scale and the vision, technology, and support subscales. Meanwhile, faculty perceptions of the provosts' use of compensation strategies significantly differed by involvement. The following sections summarize the results of each analysis.

Overall Score

Two-way ANOVAs on the overall scale for the complete set of surveys and the surveys with straight-line responses excluded demonstrated significant differences by levels of implementation. The complete set of surveys demonstrated unequal variances,

Levene F (5, 474) = 4.096, $p = .001$, and a significant main effect for levels of implementation, F (2, 474) = 4.843, $p = .008$, $\eta^2 = .029$. *Bonferroni post hoc* testing showed significant differences between high-implementation institutions and moderate-implementation ($p = .021$) and low-implementation ($p = .032$) institutions. While faculty perceptions at high-implementation institutions ($M = 3.16$) were significantly different than moderate-implementation ($M = 2.98$) and low-implementation ($M = 2.91$) institutions, faculty perceptions at all institutional levels represented the inability to judge (ratings between 2.5 and 3.4) the provosts' use of planning and implementation strategies. Analysis of the surveys with straight-line responses excluded demonstrated unequal variances, *Levene F* (5, 440) = 2.663, $p = .022$, and a significant main effect for level of implementation, F (2, 440) = 5.137, $p = .006$, $\eta^2 = .023$. *Bonferroni post hoc* testing showed that faculty perceptions at high-implementation institutions were significantly different from the perceptions of faculty at moderate-implementation ($p = .015$) and low-implementation ($p = .026$) institutions. However, mean faculty ratings at each level of implementation—high (*M = 3.18), moderate (M = 2.98, and low (M = 2.91)*—again indicated the inability to judge the provosts' use of planning and implementation strategies.

Vision

Two-way ANOVAs conducted on the vision subscale indicated significant main effects for level of implementation. Analysis of the complete set of survey responses demonstrated unequal variances, *Levene F* (5, 474) = 2.985, $p = .012$, and a significant main effect for level of implementation, F (2, 474) = 3.462, $p = .032$, $\eta^2 = .014$. *Bonferroni post hoc* testing showed significant differences between the perceptions of

faculty at high-implementation institutions and faculty perceptions at moderate-implementation institutions (p = .034). While faculty mean scores at high-implementation (M = 2.93) and moderate-implementation (M = 2.74) institutions were significantly different, mean scores at all levels of implementation indicated the inability of faculty members to judge the provost's use of vision strategies. The two-way ANOVA conducted on the surveys with straight-line responses excluded demonstrated equal variances, *Levene F* (5, 440) = 1.781, p = .115, and demonstrated significant main effects for level of implementation, F (2, 440) = 3.741, p = .024, η^2 = .017. *Post hoc* testing revealed significant differences between the perceptions of faculty at high-implementation institutions and moderate-implementation institutions (p = .022). Again, despite the mean score for high-implementation institutions (M = 2.93) being significantly different from moderate-implementation (M = 2.70) and low-implementation (M = 2.73) institutions, the mean scores of faculty at each institutional level demonstrated the inability of faculty members to judge the provosts' use of vision strategies.

Technology

Two-way ANOVAs conducted on the technology subscale indicated significant main effects for levels of implementation. The two-way ANOVA conducted for the complete set of survey responses demonstrated unequal variances, *Levene F* (5, 474) = 4.295, p = .001, and significant main effects on levels of implementation, F (2, 474) = 6.087, p = .002, η^2 = .025. *Bonferroni post hoc* testing showed significant differences between the perceptions of faculty at high-implementation institutions and faculty at moderate-implementation institutions (p = .011) and low-implementation institutions (p = .009). While faculty perceptions at high-implementation institutions (M = 3.37) were

significantly different from the perceptions of faculty members at moderate-implementation (M = 3.14) and low-implementation (M = 3.02) institutions, the mean ratings for all levels were between 2.5 and 3.4, indicating the inability to judge the provosts' efforts. The two-way ANOVA for the surveys with straight-line responses excluded demonstrated unequal variances, *Levene* F (5, 440) = 2.880, p = .017, and a significant main effect for level of implementation, F (2, 440) = 6.462, p = .002, η^2 = .028. *Post hoc* testing showed the perceptions of faculty at high-implementation institutions to be significantly more favorable than the perceptions of faculty at moderate-implementation (p = .009) and low-implementation (p = .005) institutions. While, faculty perceptions at high-implementation institutions (M = 3.41) were significantly different from faculty perceptions at moderate-implementation (M = 3.15) and low-implementation (M = 3.02) institutions, the scores at all institutional levels again represented the inability to judge the provosts' use of technology strategies.

Support

Two-way ANOVAs conducted on the support subscale demonstrated significant main effects for levels of implementation. The two-way ANOVA for the complete set of survey responses demonstrated unequal variances, F (5, 474) = 6.034, p = .00002, and a significant main effect for levels of implementation, F (2, 474) = 4.167, p = .016, η^2 = .017. *Bonferroni post hoc* testing showed significant differences between faculty perceptions at high-implementation institutions and faculty perceptions at moderate-implementation (p = .039) and low-implementation (p = .039) institutions. While the mean score for high-implementation institutions (M = 3.27) was significantly different than the mean scores for moderate-implementation (M = 3.09) and low-implementation

(M = 2.99) institutions, the scores for all levels of implementation indicated that faculty were unable to judge the provosts' use of support strategies. The two-way ANOVA for the surveys with straight-line responses excluded demonstrated similar results. Variances were unequal, F (5, 440) = 3.915, p = .002, and there was a significant main effect for level of implementation, F (2, 440) = 4.513, p = .011, η^2 = .020. *Post hoc* testing revealed that faculty perceptions at high-implementation institutions were significantly more favorable than the perceptions of faculty at moderate-implementation (p = .037) and low-implementation (p = .028) institutions. Again, while the faculty perceptions at high-implementation institutions (M = 3.30) were significantly different from the perceptions of faculty at moderate-implementation (M = 3.09) and low-implementation (M = 2.99) institutions, faculty responses at all levels demonstrated the inability to judge the provosts' use of support strategies.

Compensation

The two-way ANOVAs conducted on the compensation subscale demonstrated significant main effects for involvement. Results for the complete set of surveys revealed unequal variances, *Levene* F (5, 474) = 4.347, p = .001, and significant main effects for involvement, F (1, 474) = 6.011, p = .015, η^2 = .012. The perceptions of faculty members uninvolved in distance education (M = 2.92) differed significantly from the perceptions of faculty members involved in distance education (M =2.69). The two-way ANOVA conducted on the surveys with straight-line responses excluded demonstrated equal variances, *Levene* F (5, 440) = 2.103, p = .064, and a significant main effect for involvement, F (2, 440) = 5.449, p = .020, η^2 = .012. The perceptions of faculty members uninvolved in distance education (M = 2.91) were significantly different from the

perceptions of faculty members involved in distance education (M = 2.68). For both analyses, the mean scores for both the faculty members involved in distance education and the faculty members not involved in distance education indicated the inability to judge (2.5 to 3.4 on the scale) the provosts' use of compensation strategies.

The two-way ANOVAs conducted on the attitude measures to make comparisons by levels of implementation and gender, years of service, and involvement indicated significant results, however, these results must be interpreted with caution. Unequal group sizes and violations of the assumptions of normality and equality of variances can potentially increase the likelihood of Type I errors and, thus, raise questions about the validity of the results. Furthermore, the effect sizes for all comparisons were quite small. Lastly, despite significant results in the analyses, the faculty mean scores fell between 2.5 and 3.4 on the rating scale, indicating the inability to judge the provosts' use of the planning and implementation strategies investigated in this study.

One-Way ANOVAs

Given the violations of the assumptions of normality and equality of variances, the researcher conducted a series of one-way ANOVAs to determine if there were significant differences among institutional levels of implementation on the overall scale and each of the subscales of the Distance Education Administrator Practices Survey. One-way ANOVA procedures were robust against violations of the assumptions of normality and provided alternative tests to deal with unequal variances. The results of the ANOVAs demonstrated significant differences among institutional levels on the technology and support dimensions of the Distance Education Administrator Practices Survey.

Overall Score

One-way ANOVAs were conducted to determine if participant's perceptions of provosts' use of distance education planning and implementation strategies differed significantly among low-, moderate-, and high-implementation institutions. The overall score was based on the mean respondent's score on all 20 scale items representing each of the four dimensions of the Distance Education Administrator Practices Framework. The first ANOVA was conducted on all complete surveys. A second analysis was conducted with the 37 straight-line responses excluded.

The ANOVA conducted on the overall scores for all 480 survey responses demonstrated no significant differences among levels of implementation. Table 17 represents the means and standard deviations for the three groups. Mean scores reflected an inability to judge (a scale value between 2.5 and 3.4) the provost's use of the planning and implementation strategies. The assumption of homogeneity of variance was not met for this data, *Levene* $F(2, 477) = .004$, $p = .004$. The null hypothesis of no significant differences among levels could not be rejected, *Welch* $F(2, 2.97) = 2.97$, $p = .055$, $\omega^2 = .008$.

Table 17

Overall Scale Means by Level

Level of Implementation	*n*	*M*	*SD*
High	172	3.12	0.67
Moderate	253	3.00	0.52
Low	55	2.91	0.62
Total	480	3.03	0.59

The ANOVA conducted on the overall scores with the straight-line responses excluded also demonstrated no significant differences among levels. Table 18 represents the means and standard deviations for the three groups. The assumption of homogeneity of variance was also not met for this data, *Levene* $F(2, 443) = 3.73$, $p = .025$. The hypothesis that there was no significant differences among levels was not rejected, *Welch* $F(2, 144.42) = 2.98$, $p = .054$, $\omega^2 = .008$.

Table 18

Overall Scale Means by Level (Straight-Line Responses Excluded)

Level of Implementation	*n*	*M*	*SD*
High	161	3.13	0.69
Moderate	230	3.00	0.55
Low	55	2.91	0.62
Total	446	3.03	0.62

Vision

The vision subscale solicited information regarding faculty members' perceptions of the provosts' employment of strategies to create, communicate, and fund an institutional strategy for distance education. One-way ANOVAs were conducted on all survey responses and on responses with the straight-line surveys excluded. Mean scores at all levels ranged between 2.4 and 3.4 on the rating scale and reflected the inability of faculty members to judge the provosts' use of vision strategies. Analysis of the complete set of responses showed no significant differences among institutional levels of implementation. Mean responses and standard deviations are summarized in Table 19.

Table 19

Vision Score Means by Level

Level of Implementation	*n*	*M*	*SD*
High	172	2.86	0.77
Moderate	253	2.73	0.65
Low	55	2.73	0.74
Total	480	2.78	0.71

The homogeneity of variance assumption was confirmed, *Levene F*(2, 477)=1.95, $p = .144$. The one-way ANOVA of the vision score (Table 20) revealed no significant differences, $F(2, 477) = 1.963$, $p = .142$, $\eta^2 = .008$, therefore the null hypothesis could not be rejected.

Table 20

ANOVA for Vision Scores

Source	*SS*	*df*	*MS*	*F*	*p*
Between	1.97	2	0.98	1.96	.14
Within	239.09	477	0.50		
Total	241.06	479			

Analysis of the vision subscale scores with the straight-line responses excluded showed no significant differences among groups. Means and standard deviations are summarized in Table 21.

Table 21

Vision Score Means by Level (Straight-Line Responses Excluded)

Level of Implementation	*n*	*M*	*SD*
High	161	2.86	0.80
Moderate	230	2.70	0.68
Low	55	2.72	0.74
Total	446	2.76	0.73

The homogeneity of variance assumption was confirmed, *Levene* $F(2, 443) = 1.60$, $p = .203$. The results of the one-way analysis of variance (Table 22) showed no significant differences, $F(2, 443) = 2.06$, $p = .13$, $\eta^2 = .009$, thus the null hypothesis could not be rejected.

Table 22

ANOVA for Vision Scores (Straight-Line Responses Excluded)

Source	*SS*	*df*	*MS*	*F*	*p*
Between	2.21	2	1.10	2.06	.13
Within	237.05	443	0.54		
Total	239.26	445			

Technology

The technology subscale was designed to assess faculty perceptions of the provosts' provision of a technological infrastructure and access to the technological tools to support and deliver distance education. One-way ANOVAs were conducted on all survey responses, followed by all survey responses with straight-line ratings excluded.

A one-way ANOVA on all survey responses showed significant differences between high-implementation ($M = 3.36$, $SD = 0.82$) and moderate-implementation ($M =$

3.16, *SD* = 0.04) and low-implementation (*M* = 3.03, *SD* = 0.80) institutions. Table 23 summarizes means and standard deviations.

Table 23

Technology Score Means by Level

Level of Implementation	*n*	*M*	*SD*
High	172	3.36	0.82
Moderate	253	3.16	0.04
Low	55	3.03	0.80
Total	480	3.21	0.74

The homogeneity of variance assumption was violated, *Levene F*(2, 477) = 4.46, *p* = .01. Given *Welch F*(2, 140.95) = 5.10, *p* = .007, ω^2 = .02, the hypothesis that there were no significant differences among groups was rejected, indicating a significant difference among institutional levels of implementation. *Post hoc* comparisons using the Games-Howell procedure were conducted to determine which institutional levels of implementation differed significantly. *Post hoc* results (summarized in Table 24) indicate that high-implementation institution faculty perceptions on the technology subscale were significantly higher (*M* = 3.36, *SD* = 0.82) than faculty perceptions at both moderate-implementation (*M* = 3.16, *SD* = 0.04) and low-implementation (*M* = 3.03, *SD* = 0.80) institutions. All mean scores were between 3 and 3.4, indicating the inability of faculty to judge the provosts' use of technology strategies.

Table 24

Post Hoc Results for Technology Scores

Level of Implementation	*M*	Mean Differences ($\overline{X}_i$ - $\overline{X}_j$) (Effect sizes indicated in parentheses)		
		1	2	3
1. High	3.36	--		
2. Moderate	3.16	0.20* (.28)	--	
3. Low	3.03	0.33* (.41)	0.13	--

*$p < .05$

The one-way ANOVA conducted on surveys with the straight-line responses excluded also revealed significant differences among the institutional levels. Table 25 summarizes the means and standard deviations.

Table 25

Technology Score Means by Level (Straight-Line Responses Excluded)

Level of Implementation	*n*	*M*	*SD*
High	161	3.38	0.84
Moderate	230	3.17	0.68
Low	55	3.03	0.80
Total	446	3.23	0.76

Unlike the previous analysis, technology scores with the straight-line responses excluded demonstrated borderline homogeneity of variance, *Levene* $F(2, 443) = 3.042$, $p = .049$. The one-way ANOVA (Table 26) revealed a statistically significant difference, $F(2, 443) = 6.005$, $p = .003$, $\eta^2 = .03$ among low-, moderate-, and high-implementation institutions.

Table 26

ANOVA for Technology Scores (Straight-Line Responses Excluded)

Source	*SS*	*df*	*MS*	*F*	*p*
Between	6.837	2	3.42	6.005	.003
Within	252.18	443	0.57		
Total	259.02	445			

Post hoc comparisons using *Scheffe* procedures were used to identify the location of differences among institutional levels. The results of *post hoc* comparisons are summarized in Table 27. The mean score for faculty responses at high-implementation institutions rated their provosts on the technology subscale significantly higher (M = 3.38, SD = 0.84) were significantly different from the scores for moderate-implementation (M = 3.17, SD = 0.68) and low-implementation (M = 3.03, SD 0.80) institutions. Effect sizes for these differences were d = .28 and d = .60 respectively. Mean scores between 3 and 3.4 at all levels indicated that faculty were unable to judge the provosts' use of technology strategies.

Table 27

Post Hoc Results for Technology Scores

Level of Implementation	*M*	Mean Differences ($\overline{X}_i$ - $\overline{X}_j$) (Effect sizes indicated in parentheses)		
		1	2	3
1. High	3.38	--		
2. Moderate	3.17	0.21* (.28)	--	
3. Low	3.03	0.36* (.60)	0.14	--

*$p < .05$

Support

The support subscale measured faculty perceptions of the provost's assurance of mechanisms to support the development of distance education—pedagogical, technical, peer, and administrative support and training. One-way ANOVAs were conducted to determine if significant differences existed among institutional levels of implementation. Analyses were conducted on all survey responses and on surveys with the straight-line responses excluded.

The one-way ANOVA conducted on the complete set of survey responses showed no significant differences among institutions. Table 28 summarizes the means and standard deviations of the scores. Mean scores between 2.5 and 3.4 demonstrated that faculty members were unable to judge the provosts' use of support strategies at all institutional levels. The test for the homogeneity of variance assumption was violated, *Levene* $F(2, 477) = 5.25$, $p = .006$. The ANOVA showed no significant results, *Welch* $F(2, 144.69) = 2.03$, $p = .05$, $\omega^2 = .008$.

Table 28

Support Score Means by Level

Level of Implementation	*n*	*M*	*SD*
High	172	3.25	0.78
Moderate	253	3.12	0.63
Low	55	2.99	0.71
Total	480	3.15	0.70

A one-way ANOVA conducted on the survey responses with the straight-line responses excluded demonstrated a significant result. Means and standard deviations are summarized in Table 29.

Table 29

Support Score Means by Level (Straight-Line Responses Excluded)

Level of Implementation	*n*	*M*	*SD*
High	161	3.27	0.80
Moderate	230	3.13	0.66
Low	55	2.99	0.71
Total	446	3.16	0.72

The data violated the homogeneity of variance assumption, *Levene* $F(2, 443) = 3.81$, $p = .02$. The ANOVA was significant, *Welch* $F(2, 146.83) = 3.15$, $p = .046$, $\omega^2 = .01$. *Post hoc* comparisons using the *Games-Howell* procedure were conducted to determine which institutional levels of implementation differed significantly. *Post hoc* results (summarized in Table 30) indicated that high-implementation faculty ($M = 3.27$, $SD = 0.80$) perceptions were significantly different from faculty perceptions at low-implementation institutions ($M = 2.99$, $SD = 0.71$) with an effect size of $d = .36$. However, mean scores between 2.5 and 3.4 at all levels indicated that faculty members were unable to judge the provosts' use of support strategies.

Table 30

Post Hoc Results for Support Scores

Level of Implementation	*M*	Mean Differences ($\overline{X_i}$ - $\overline{X_j}$) (Effect sizes indicated in parentheses)		
		1	2	3
1. High	3.25	--		
2. Moderate	3.12	0.14	--	
3. Low	2.99	0.27* (.36)	0.14	--

*p < .05

Compensation

One-way ANOVAs were conducted on the compensation subscale of the surveys. The compensation subscale comprised items related to faculty compensation for distance education and incentives (e.g., release time, alternative workload) to develop distance education courses. It is important to note that the items here were included as an experimental variable. While the Distance Education Administrator Practices Framework itself called for four survey items in this area. Two items—consideration of distance education in tenure and consideration of distance education in promotion—were excluded from the survey, given the recommendation of expert panels during survey development and piloting who cited the constraints the faculty collective bargaining agreement placed on the provost in making tenure and promotion decisions. Therefore, this subscale only included two items. One-way ANOVAs were processed for all survey responses and with straight-line responses excluded.

The one-way ANOVA for the complete set of responses showed no significant differences among faculty members' perceptions at each institutional level. The mean scores between 2.5 and 3 indicated the inability of the faculty members to judge the provosts' provision of release time and compensation for distance education. Table 31 summarizes the means and standard deviations.

Table 31

Compensation Scores by Level

Level of Implementation	*n*	*M*	*SD*
High	172	2.70	0.86
Moderate	253	2.80	0.05
Low	55	2.79	0.92
Total	480	2.76	0.81

A Levene's test confirmed equality of variances, *Levene F*(2, 477) = 2.95, p = .54. However, the one-way ANOVA (Table 32) demonstrated no significant results *F*(2, 447) = .777, *p* = .461, η^2 = .003, thus the null hypothesis that there was no significant differences among levels could not be rejected.

Table 32

ANOVA for Compensation Scores

Source	*SS*	*df*	*MS*	*F*	*p*
Between	1.03	2	0.52	.777	.46
Within	316.40	477	0.66		
Total	317.43	479			

The one-way ANOVA with the straight-line responses produced no significant results. Table 33 summarizes the means and standard deviations.

Table 33

Compensation Means by Level (Straight-Line Responses Excluded)

Level of Implementation	*n*	*M*	*SD*
High	161	2.68	0.89
Moderate	230	2.78	0.79
Low	55	2.79	0.92
Total	446	2.74	0.84

The homogeneity of variance assumption was confirmed, *Levene F*(2, 443) = 1.64, *p* = .195. The results of the one-way ANOVA are summarized in Table 34. The null hypothesis that there were no differences among faculty perceptions of the provost's use of strategies in the compensation dimension of the Administrator Practices Framework at each institutional level could not be rejected *F*(2, 443) = .738, *p* = .49, η^2 =.003.

Table 34

ANOVA for Compensation Scores (Straight-Line Responses Excluded)

Source	*SS*	*df*	*MS*	*F*	*p*
Between	1.05	2	0.52	.74	.49
Within	314.31	443	0.71		
Total	315.36	445			

The results of the one-way ANOVAs indicated significant differences on the technology and support dimensions of the Distance Education Administrator Practices Framework. One-way ANOVAs were conducted on the complete set of surveys and the surveys with straight-line responses excluded. Significant differences were found between faculty members' mean scores at high-implementation institutions and the means scores for moderate-implementation and low-implementation institutions on the technology subscale for both the complete set of surveys and the surveys with straight-line responses excluded. Significant differences were also found on the support subscale between the perceptions of faculty at high-implementation institutions and the perceptions of faculty at moderate-implementation institutions, but only when straight-line responses were excluded. Despite significant differences, the mean scores at all institutional levels were between 2.5 and 3.4 on the rating scale, indicating the inability of faculty members to judge the provosts' use of planning and implementation strategies.

Supplemental One-Way ANOVAs

Supplemental one-way ANOVAs were conducted to determine if overall and subscale scores differed significantly by gender, years of service, and involvement in distance education. Data tables for the supplemental analyses have been included in Appendix F. Scores on the overall scale and each of the subscales did not significantly

differ by gender or by years of service. Significant differences by involvement were found on the compensation scores for the complete set of surveys, Welch $F(1, 367.05) = 10.67$, $p = .001$, $\omega^2 = .02$, and the surveys with the straight-line responses, Welch $F(1, 293.75) = 8.83$, $p = .003$, $\omega^2 = .02$. Significant differences between the perceptions of faculty members involved and faculty members uninvolved in distance education were also found on support scores, but only on the complete set of survey responses, *Welch* $F(1, 367.05) = 4.59$, $p = .033$, $\omega^2 = .01$. Furthermore, the mean scores for the overall scale and each of the subscales at all institutional levels and on the gender, years of service, and involvement independent variables ranged from 2.5 and 3.4, indicating the inability of faculty members to judge the provosts' use of the planning and implementation strategies.

Attitudes toward Distance Education

In addition to understanding faculty members' attitudes toward the provosts' use of distance education planning and implementation strategies, the researcher was interested in understanding faculty attitudes toward distance education in general. An open-ended item asking faculty to express their general attitudes toward distance education was included at the end of the Administrator Practices Survey. Answering this question was optional. In total, 445 faculty members responded to this question. Each faculty members' response was coded according to a five-point scale from overtly positive to overtly negative with a middle category for neutral responses. In the majority of the responses, faculty members included additional comments or concerns, providing content for additional analysis. Statements were read and coded by themes that emerged and then reread and recoded according to the resulting categories. Themes that emerged

included student concerns, teaching methods, quality, appropriateness for subject area, support, institutional strategy and competitiveness, time and effort, technology, and academic integrity. The complete list of coded faculty comments has been included in Appendix G. The following sections summarize the categories and examples of the types of responses in each area.

Overtly Positive Comments

Responses in which faculty members generally expressed affirmative attitudes toward distance education were classified as overtly positive (*n* = 80, 18%). Examples of such comments follow:

> I enjoy teaching online and believe it is the future of higher education.
>
> I believe that distance education should be an integral and continuously evolving part of higher education.
>
> It is a necessity and must be supported.

Positive with Qualification Comments

While some comments were positive in nature, faculty members expressed more tentative response to distance education than the overtly positive responses. For this reason, these comments were coded as positive with qualification (*n* = 178, 40%). Many of these comments included qualifying comments, such as the appropriateness of distance education for certain students or disciplines or when done well. Examples of the comments in this area included the following:

> When done correctly, distance education can be beneficial.
>
> It seems to be an effective instructional approach for highly motivated, well disciplined students; it is not clear that it is very effective with traditional students.
>
> Distance Education, when proerly desgined [*sic*] and implemented can have excellent results inmost [*sic*] areas.

Neutral Comments

Responses in which the faculty members did not clearly state a positive or negative position toward distance education were classified as neutral (*n* = 91, 20.4%). In many cases, these responses included references to external factors (e.g., market forces, student demand, or administrators). Still other responses mentioned the status of some element of distance education at the institution, such as support or the technology. Examples of neutral responses included the following:

> The market demand [*sic*] it, we have to offer it.
>
> Some kinds of individuals learn effectively from distance educaton [*sic*] . . . but this is not the best option for many.
>
> Due to union animosity distance education is not viewed favorably.
>
> There is little to no support by my univeristy [*sic*] in the development and delivery of my online courses.
>
> My institution needs to settle on an LMS and then stick with it. WebCT then Moodle and now D2L in a very short time. I've heard that the D2L contract will be up soon and I won't be suprised [*sic*] to hear we switch again.
>
> When done well it is an excellent tool, but when done poorly it can ruin a schools [*sic*] reputation.

Negative with Qualification Comments

Similar to the positive with qualification category, negative with qualification responses (*n* = 57, 12.8%) were not overtly negative, but respondents expressed a negative attitude toward distance education with additional information. A common pattern in this category was a negative orientation toward distance education with acknowledgement that it is necessary. Sample responses follow:

> I wouldn't want to teach a distance ed course, but I have no problem with those who do.

> I am grave reservations butr [*sic*] recognize that there is no holding it back.
>
> Electronic "interactions" do not allow students and faculty to develop personalized professional relationships to the same degree as face-to-face (hence why we have such things as emoticons and the like). I am concerned that too much reliance on distanceed [*sic*] will limit faculty ability to recognize those students who are in trouble, not merely numerically in a grade book, but with life skills or life events.
>
> I do not believe that it will ever be of the same quaility [*sic*] as face to face instruction. If done well distance education is time consuming for the faculty and rewarding for the student. Many faculty do not put the necessary time or effort into it.

Overtly Negative Comments

Faculty responses that expressed a general dislike or disapproval of distance education were classified as overtly negative (n = 39, 8.8%). While some respondents stated general opinions of opposition, others characterized distance education as contrary to higher education itself. Examples of overtly negative responses follow:

> I generally oppose distance education.
>
> It is an adulteration of higher education.
>
> It is a terrible idea for higher education. It will never replace real interaction between faculty and students in a classroom. It's a sham.

Based on the coding scheme, the data were analyzed using frequencies to determine the pattern of response. The results of frequency counts are summarized in Table 35. The majority of responses (n = 178, 40%) were in the positive with qualifications category. Overall, positive responses to distance education accounted for 58% (n = 258) of the attitude toward distance education responses. Meanwhile, negative attitudes toward distance education accounted for 21.6% (n = 96) of the responses. The remaining 20.4% (n = 91) responses were classified as neutral. The high percentage of

positive attitudes expressed in faculty responses is understandable, given that 67.1% of the respondents in the study indicated that they were involved in distance education.

Table 35

Frequency of Attitudes toward Distance Education

Coded Response	*n*	Percentage
Overtly Positive	80	18.0%
Positive with Qualifications	178	40.0%
Neutral	91	20.4%
Negative with Qualifications	57	12.8%
Overtly Negative	39	8.8%
Total	445	100.0%

Analysis was also conducted to see how the attitudes varied among institutional types. The frequencies are summarized in Table 36. The majority of responses at each level of implementation reflected a positive attitude toward distance education. Positive attitudes accounted for 62.3% (n = 99) of the responses at high-implementation institutions, for 57.2% (n = 132) of the responses at moderate-implementation institutions, and 49.1% (n = 27) at low-implementation institutions. It is important, however, to note that at the low-implementation institutions, the responses were more evenly spread across categories.

Table 36

Frequency of Attitudes toward Distance Education by Level

Level of Implementation	Coded Response	*n*	Percentage
High	Overtly Positive	34	21.4%
	Positive with Qualifications	65	40.9%
	Neutral	32	20.1%
	Negative with Qualifications	18	11.3%
	Overtly Negative	10	6.3%
	Total	159	100.0%
Moderate	Overtly Positive	36	15.6%
	Positive with Qualifications	96	41.6%
	Neutral	51	22.1%
	Negative with Qualifications	29	12.6%
	Overtly Negative	19	8.2%
	Total	231	100.0%
Low	Overtly Positive	10	18.2%
	Positive with Qualifications	17	30.9%
	Neutral	8	14.5%
	Negative with Qualifications	10	18.2%
	Overtly Negative	10	18.2%
	Total	55	100.0%

N = 445

In examining faculty attitudes toward distance education, faculty involvement was also of interest. The frequency of response for the involved and uninvolved groups is listed in Table 37. The majority of faculty involved in distance education (*n* = 195, 63.9%) expressed positive attitudes toward distance education. Forty-five percent (*n* = 63) of faculty members identifying as uninvolved expressed positive attitudes toward distance education. This result was unexpected. This could potentially be a reflection of

faculty members who have an interest in distance education and who have not yet had or taken the opportunity to develop distance offerings.

Table 37

Frequency of Attitudes toward Distance Education by Involvement

Involvement	Coded Response	*n*	Percentage
Involved	Overtly Positive	66	21.6%
	Positive with Qualifications	129	42.3%
	Neutral	63	20.7%
	Negative with Qualifications	33	10.8%
	Overtly Negative	14	4.6%
	Total	305	100.0%
Uninvolved	Overtly Positive	14	10%
	Positive with Qualifications	49	35%
	Neutral	28	20%
	Negative with Qualifications	24	17.1%
	Overtly Negative	25	17.9%
	Total	140	100.0%

N = 445

To understand the distribution of attitudes among faculty who were not involved in distance education, the levels of the uninvolvement variable were disaggregated. On the Distance Education Administrator Practices Survey, faculty members who were classified as uninvolved either indicated that they had not taught or developed a distance education course or that they would never develop or teach a distance education course. Attitude responses of faculty uninvolved in distance education are summarized in Table 38. When disaggregated, the majority (n = 49, 48.8%) of faculty respondents who had not taught or developed distance education courses noted positive attitudes toward distance education, however, it should be noted that there were a fair number (n = 39, 31.4%) of individuals in this group who also held negative attitudes toward distance education. For

faculty members indicating that they would never teach or develop a distance education course, the majority of responses (*n* =11, 57.9%) fell under negative attitudes toward distance education.

Table 38

Frequency of Attitudes toward Distance Education (Uninvolved)

Involvement	Coded Response	*n*	Percentage
Have not taught/ developed	Overtly Positive	14	11.6%
	Positive with Qualifications	45	37.2%
	Neutral	24	19.8%
	Negative with Qualifications	21	17.4%
	Overtly Negative	17	14.0%
	Total	121	100.0%
Will never teach or develop	Overtly Positive	0	0.0%
	Positive with Qualifications	4	21.1%
	Neutral	4	21.1%
	Negative with Qualifications	3	15.8%
	Overtly Negative	8	42.1%
	Total	19	100.0%

N = 445

In comments across all of the categories, respondents (*N* =351) provided additional information and comments that can help explain their feelings regarding distance education. To identify these themes, faculty responses were read and a coding scheme developed based on the themes that emerged. The statements were then reread and coded according to the scheme. Themes that emerged included student concerns, teaching methods, quality, appropriateness for subject area, support, institutional strategy and competitiveness, time and effort, technology, and academic integrity. While some comments addressed multiple dimensions, responses were classified by the area that

reflected the "core" theme of the comment. Table 39 summarizes the frequency of themes expressed in each comment. The following sections further describe and discuss the characteristics of each of the themes and provide example responses.

Table 39

Frequency of Themes in Attitudinal Comments

Themes	*n*	*Percentage*
Student Concerns	73	20.8%
Teaching Methods	65	18.5%
Quality	58	16.5%
Appropriateness for Subject Area	49	14.0%
Support	37	10.5%
Institutional Strategy and Competitiveness	32	9.1%
Time/Effort	19	5.4%
Technology	11	3.1%
Academic Integrity	7	2.0%
Total	351	100.0%

Student Concerns

In sharing their attitudes toward distance education, faculty members (n = 73, 20.8%) expressed their thoughts on how distance education serves and/or does not serve students. Faculty members, particularly those who were overtly supportive of distance education, often spoke of it in terms of providing access and making courses available for students. Meanwhile, faculty members in the other categories made distinctions about the type of students for whom distance education might be best suited, particularly citing adult learners and highly motivated students. Examples of student-oriented responses follow:

> I support distance education because it allows people who are near the college or who may have disabilities to participate in college learning.
>
> Excellent medium for which to reach mature, mindful students who would not be able/willing to come to campus. Distance Ed is NOT for immature students who have no idea of time management or self motivation.
>
> For the self-motivated and interested interested [*sic*] in learning, distance education is a viable option. For those who are unmotivated or without direction, it is a waste of time.
>
> I am not in favor of distance learning for traditional aged students enrolled in a University full time. i [*sic*] recognize the value of distance education for nontraditional students who have personal circumstances that make attending on site courses difficult [*sic*] I don't think the average student learns as much in a distance class as in a face-to-face class.

Teaching Methods

The responses in this category (n = 65, 18.5%) related distance education to other teaching methods. While some faculty members viewed distance education as one modality among others to deliver courses, others compared distance education to other modalities, such as blended, hybrid, or traditional face-to-face courses. Faculty members discussed teaching methods and philosophies used within the modalities themselves and made recommendations regarding the techniques that should be used for effective instruction. A sample of the comments in this theme follow:

> A necessary and growing part of higher education—distance education can be just as effective as in-class delivery.
>
> I support its use. It's simply a different venue, which has some similar and some different strengths and limitations compared with podium-based education. I particularly prefer to offer podium-based courses that incorporate course websites, resources nd [*sic*] activities—using the strengths of each venue.

> Apples and oranges. We teach in the classroom. We teach on-line. There are pros and cons for both and a combination of the two might be the best option.
>
> I think distance education should be more than a text-based endeavor. We should be using Blackboard Collaborate and online Presentation Software [*sic*].
>
> It drastically reduces the quality of education that we provide students and is not equivalent to traditional courses. Some aspects (discussions in particular) of the experience simply cannot be reproduced adequately without a classroom experience.

Quality

Faculty members expressed concerns for quality (*n* = 58, 16.5%). Primarily these comments addressed the need to produce quality offerings or to offer distance education correctly. Meanwhile, other comments simply referred to distance education as inferior or low quality. Still, other comments addressed specific aspects of quality control, such as instructor evaluation. In most cases, the term "quality" was not defined. Examples of comments regarding quality follow:

> I believe that distance education has a place in academia as long as quality can be assured.
>
> I support online instruction, and hybrid instructionsl [*sic*] programming. Evaluation of teaching via distance education needs to be addressed.
>
> I believe it is not adequately assessed in terms of meeting course goals. Pedagocially [*sic*] speaking, I believe many professors do not create as rigorous a class as they would have face-to-face.
>
> I'm very negative towards distance learning. we have almost all students who live within commuting distance of our institution and the loss of face-to-face contact is a major problem. The interaction I've seen with distance learning is primitive. I see itmostly [*sic*] as a the [*sic*] universities wanting to save money and raid other institutions [*sic*] students.

Appropriateness for Subject Area

Faculty comments also addressed the appropriateness of distance education for certain disciplines and types of courses (*n* =49, 14%). While some comments in this area simply made general statements about distance education not being appropriate in all disciplines or subjects, other responses provided a specific rationale as to why distance education might not be appropriate for the faculty member's subject or teaching style. Sample comments follow:

> I think there is value in it but for the right courses. Most of my course work revolves around our television studio and editing labs which does not seem to me to be appropriate for distance education. On the other hand, the mass lecture course I teach wold [*sic*] be well suited to distance education.
>
> I think it might be ok for some subjects. In general, I think in-person interaction is important.
>
> I'm not too sure what place distance education has in my discipline and I have certain reservations in its ability to service the 'hands on' learning that I promote.
>
> It is not an effective way to teach all subject matters.
>
> Don't like it, can't see it [*sic*] use in classes that I teach, lectures with difficult material which I need to be able to see student reactions to questions. Also, tough to perform labs.

Support

Faculty comments (*n* = 37, 10.5%) addressed the role of institutional support in distance education. Many faculty members expressed the need for more support at their institutions, either generally or in terms of support from a specific source (e.g., instructional designers/course developers, other faculty, and administrators). Sample comments from this area follow:

> Very excited about it. have [*sic*] developed hybrid and DE courses. Wish there was more support from the institution.

> It is strongly discouraged. I teach courses online that consistently fill. These same exact courses have been denied being offered online and switched to a traditional classroom, that holds LESS STUDENTS than what I carry in an online class. It makes n [*sic*] sense. The little bit of money that is paid to me to teach an online class is far less than the tuition gained from the extra students, online, and with no overhead costs to heat/cool/light the classroom.
>
> It can be effective. technological [*sic*] support, pedagogical support and compensation are all sub-par at my institution.
>
> Due to union animosity distance education is not viewed favorably.
>
> I tried it. I was hugely disappointed in tech support—the "supporters" didn't know enough about DE to either train me, keep up with problems I was having, or solve a couple of huge issues I had (such as the course "closing" early, locking out all the tudents [*sic*] who were trying to turn in their final papers—that snafu, on the last day of class, took more than three weeks to sort out, and did not sort out to my satisfaction). I do not plan to teach online again anytime soon.

Institutional Strategy and Competitiveness

Comments regarding faculty members' attitudes toward distance education (n = 32, 9.1%) alluded to institutional strategy, particularly the ability to the institution to be competitive. Comments in this area spoke to the consequences of the university not engaging in distance education and the need for the university to develop its offerings to stay competitive. Meanwhile, other comments referred to the need for the institution to develop strategy for its use of distance education. The following are examples of responses in this area:

> A valuable and important large niche in the offerings of the university.
>
> It's an important part of our university's present and future, but I have no sense that it has been or is being deliberately and carefully planned by administration or faculty. All efforts seem piecemeal, of the moment . . . and that' s not good.

> It's a necessary and growing component of higher ed. However, I think administrative entities view it as a revenue-enhancing delivery system primarily, [*sic*] and no longer care about effective education in any form.
>
> It is the trend of the future. Follow it or be left behind.
>
> The latest money making venture in education and everyone is trying to jump on that band-wagon. For a univ [*sic*] who says 1-on-1 interaction with students is important, distance ed is contrary to that belief!

Time and Effort

Faculty responses highlighted the extra effort required to create distance education courses (*n* = 19, 5.4%). Responses highlighted the time, effort, and commitment that it takes to offer an effective distance education course. Others discussed the lack of acknowledgement and compensation for the time they put into developing distance offerings. Examples of these responses follow:

> I believe distance education is needed in today's marketplace. Teaching a distance education course is considerably more work than teachig [*sic*] a classroom based course.
>
> I feel it is generally a good system, but the compensation is inadequate considering the many extra hours that go into teaching a distance course.
>
> It takes a lot of work to develop an effective distance education course. There is plenty of room for improvement.
>
> I nolonger [*sic*] teach because it takes away from my professional development [*sic*] also the pay is too little.
>
> Not as good in providing studnets [*sic*] with the skills or knowledge they need to be successful. It is time consuming and still at the mercy of technology that may fail. Students are often frustrated by it .

Technology

Faculty members' responses underscored the importance of a consistent technological platform and the ability of technologies to function while teaching via distance education (*n* = 11, 3.1%). Faculty expressed the difficulties of staying current,

especially when technologies keep changing. Others described distance education as working well, only when the technology functions. Sample responses follow:

> Distance education is supportive for faculty and students. The plat forms [*sic*] have been difficult from administration via D2L and Moodle.

> It's ok; but we continue to struggle with technology compatibility between the two schools.

> It is probably nothing to do with provost but we have gone through WebCT, Two [*sic*] different Moodle versions and D2L and I hope that one system will last longer than a few years.

Academic Integrity

In expressing their attitudes toward distance education, some faculty members (*n* = 7, 2%) highlighted their concerns about academic integrity. Primarily these concerns involved verification that the work they received actually belonged to the student. Others mentioned the desire to improve systems for proctoring exams. Sample comments in this area included the following:

> Properly used, with bio-metric verification of students, DE offers an opportunity [*sic*] greatly increased levels of student learning.

> Not enough support given to proctoring exams.

> Initially I thought distance education was a positive way to teach students. Over the years I have become disillusioned about the possibilities of distance education, particulary [*sic*] as security/identity verification is concerned.

Individuals Perceived as Leaders

While this study focused on the role of the provost in planning and implementing institutional distance education efforts, understanding whom the faculty members perceived as most influential in leading distance education efforts was also of interest. The final question on the Distance Education Administrator Practices Survey asked

faculty to identify by title the individual whom they felt was most influential in the development of their institution's distance education programs. A total of 424 responses were received. An initial review of faculty responses resulted in 18 possible coding categories (Appendix I). Data were then coded according to these categories. In a few cases, respondents supplied the name or names of specific individuals. For these cases, the researcher located the individual on his or her institution's website and assigned the appropriate title code. Frequencies were calculated for each title. For clarity of presentation and discussion, categories with low frequencies have been collapsed into the "Other" category. The complete list of frequencies are listed in Appendix J. Table 40 summarizes the results.

Table 40

Frequency of Titles of Influential Individuals

Title	*n*	Percentage
Unknown	118	27.8%
Director	63	14.9%
Instructional Design/Technology Staff	48	11.3%
Dean	34	8.0%
Provost	32	7.5%
Other	30	7.1%
Faculty	29	6.8%
No One	24	5.7%
President	16	3.8%
Department Chair	10	2.4%
Chief Information Officer	9	2.1%
Vice President	6	1.4%
Associate Provost	5	1.2%
Total	424	100.0%

The data identified several positions that faculty thought were most influential in the development of distance education at their institutions. The title of director was most identified (n = 63, 14.9%) as leading distance education, followed closely by instructional design/technology support staff (n = 48, 11.3%). However, these were secondary to the 118 responses (27.8%) in which faculty members stated they were unsure or did not know who was most influential in leading distance education at their campuses. This could suggest a lack of clear leadership for distance education on campus, a distributed approach to the leadership of distance education, or a lack of awareness on the part of the faculty members who responded. Further research in this area might be required.

Data were further broken down to determine if there were any patterns at the different levels of implementation. The data for the top three categories at each institution are summarized in Table 41 (for the complete list of responses and relative frequencies, see Appendix J). Only in the high-implementation category did the majority (n = 41, 26.6%) of respondents identify a position (director) as influential in the development of distance education. The title of director included directors of teaching and learning, continuing education, extended programs, and distance education and instructional technology. Meanwhile, respondents from both the moderate-implementation (n = 68, 31.3) and low-implementation (n = 17, 32.1%) institutions were unsure as to who was most influential in distance education at their institutions. Further research is needed to identify if there might be a relationship between the individuals perceived a influential and the institutional level of implementation.

Table 41

Frequency of Top Influential Individuals by Level

Level of Implementation	Title	*n*	Percentage
High (N = 154)	Director	41	26.6%
	Unknown	33	21.4%
	Other	17	11.0%
Moderate (N = 217)	Unknown	68	31.3%
	Instructional Design/ Technology Staff	35	16.1%
	Dean	22	10.1%
Low (N = 53)	Unknown	17	32.1%
	Director	9	17.0%
	Provost	8	15.1%

To further explore the director role, faculty responses from the high-implementation institutions were disaggregated to identify which director position was considered most influential. Table 42 summarizes the results. Of the 41 responses that identified the director position as influential, 20 (*n* = 48.8%) identified the director of distance education/instructional technology, followed by the director of teaching and learning (*n* = 14, 34.1%), as the most influential in leading distance education.

Table 42

Frequency of Director Titles at High-Implementation Institutions

Title	*n*	Percentage
Director of Distance Education/Instructional Technology	20	48.8%
Director of Teaching and Learning	14	34.1%
Director of Continuing Education/Extended Programs	7	17.1%
Total	41	100.0%

When asked to identify the title of the individual they thought most influential in the development of distance education at their institutions, the majority of faculty seemed unsure who was leading distance education and exhibited little agreement in identifying who was responsible for distance education. Twenty-seven percent of the faculty members stated that were unsure or did not know who was responsible for distance education on their campus. Meanwhile, approximately 67% of the responses identified various titles of individuals who were responsible for leading distance education. Only 7.5% of the faculty identified the provost as being influential in distance education. This suggests that the provost may not be a key figure in the development of distance education programs. Furthermore, it raises questions about who is influential in the planning and implementing distance education programs and the process by which this influence is exercised.

Summary

The results of the study examined faculty perceptions of the provosts' use of distance education planning and implementation strategies. Full-time tenure-track faculty in the Pennsylvania State System of Higher Education (PASSHE) completed the Distance Education Administrator Practices Survey. Faculty respondents represented low-, moderate-, and high-implementation institutions. Faculty were fairly equally distributed by gender and years of service across the institutional levels. However, faculty respondents mostly represented faculty involved in distance education.

Two-way and one-way ANOVAs were used to compare faculty perceptions of the provosts' use of the distance education planning and implementation strategies comparisons by levels of implementation and gender, years of service, and involvement.

Mean scores were calculated for the overall scale and the vision, technology, support, and incentives/compensation subscales from the Distance Education Administrator Practices Survey. Both two-way and one-way ANOVAs were conducted on the complete set of surveys and surveys with the straight-line responses excluded. Two-way ANOVAs were used to determine if the mean scores significantly differed by levels of implementation and gender, years of service, and involvement. Because the data violated ANOVA assumptions and group sizes were unequal, one-way ANOVAs were also conducted, given their robustness against violations of normality and the availability of alternative procedures to compensate for unequal variances.

One-way and two-way ANOVAs demonstrated significant differences, however mean scores indicated that faculty members were unable to judge the provosts' use of planning and implementation strategies. Faculty mean scores in each of the analyses were between 2.5 and 3.4 on the rating scale, indicating the inability to judge the provosts' use of strategies in the vision, technology, support, and incentives/compensation dimensions of the Distance Education Administrator Practices Framework. Furthermore, in cases of significant results, the effect sizes were very small.

Analysis of the open-ended questions regarding faculty attitudes toward distance education demonstrated that faculty respondents predominantly possessed positive perceptions of distance education. In their responses, faculty identified themes to qualify their responses and that revealed some of their underlying concerns regarding distance education. These areas include student concerns, teaching methods, quality, appropriateness for subject area, support, institutional strategy and competitiveness, time and effort, technology, and academic integrity.

Lastly, faculty identified the individuals they believed to be most influential in leading distance education on their campuses. The faculty members at high-implementation institutions identified directors as having an influential role in distance education at their institutions. Meanwhile, the faculty members at moderate- and at low-implementation institutions were unsure or did not know who at their institutions was most influential in distance education. The results of this study and directions for future research are discussed in Chapter V.

CHAPTER V

DISCUSSION

As distance education continues to proliferate in higher education, academic institutions and institutional administrators must begin to think strategically about how to build the institutional capacity for distance education to remain competitive. The provost has been identified as playing an important role in developing and guiding the institutional vision and strategy and in providing leadership in curriculum development and academic innovation. Furthermore, the provost has been recognized as critical in the planning and implementation of successful distance education initiatives. In building the institutional capacity for distance education, practices, including the development and communication of vision and the provision of technology, support, and compensation and incentives, have been recommended to bolster institutional efforts. This study examined the role of the provosts to gauge their efforts in the use of these practices in their institutions' distance education efforts. In particular, this study answered following research questions:

RQ1. Is there a statistically significant difference among faculty perceptions of the provosts' use of planning and implementation strategies at Pennsylvania post-secondary institutions demonstrating low, moderate, and high levels of distance education implementation?

RQ2. Is there a statistically significant difference among faculty perceptions of the provosts' use of vision at Pennsylvania post-secondary institutions demonstrating low, moderate, and high levels of distance education implementation?

RQ3. Is there a statistically significant difference among faculty perceptions of the provosts' provision of distance learning technologies at Pennsylvania post-secondary institutions demonstrating low, moderate, and high levels of distance education implementation?

RQ4. Is there a statistically significant difference among faculty perceptions of the provosts' provision of support functions for distance education at Pennsylvania post-secondary institutions demonstrating low, moderate, and high levels of distance education implementation?

RQ5. Is there a statistically significant difference among faculty perceptions of the provosts' provision of incentives/compensation for faculty participation in distance education at Pennsylvania post-secondary institutions demonstrating low, moderate, and high levels of distance education implementation?

Summary of Results and Discussion

Faculty in the Pennsylvania State System of Higher Education (PASSHE) were asked to rate their provosts' use of distance education planning and implementation practices. Based on recommendations from the literature, the Distance Education Administrator Practices Framework was developed. This six-dimension framework highlighted areas of practice for administrators to consider when orchestrating institutional distance education initiatives—vision, technology, support, compensation/incentives, quality, and policy. Full-time, tenure-track faculty across PASSHE institutions completed an electronic survey on which they rated the degree to which their provosts employed each of the strategies in the first four dimensions of the framework. Faculty ratings were then compared among institutions demonstrating low,

moderate, and high levels of distance education implementation and by gender, years of service, and involvement in distance education.

As suggested by their involvement in distance education, the faculty respondents were considered knowledgeable informants regarding institutional distance education initiatives. More than two-thirds of the faculty in the study identified themselves as involved in distance education. Furthermore, when asked their feelings regarding distance education, more than half of the faculty members expressed positive attitudes. The high percentage of faculty members involved in and with positive attitudes toward distance education corresponded with previous research that found positive relationships between faculty involvement and positive perceptions of distance education (Johnsrud, et al., 2005; Shea, et al., 2005).

Faculty comments regarding issues and concerns in distance education also aligned with previous research findings, however, faculty respondents also contributed some additional insights. In previous studies, faculty participants shared intrinsic motivators and personal rationales for adopting distance education. They also expressed concerns about technology, support, time and workload, incentives, quality, and the needs of students. Similarly, the faculty members in this study expressed that distance education should represent a quality effort, the importance of well-functioning technologies, the need for support, and concern for students. Faculty participants reiterated the strategic importance of distance education for institutions to continue to meet student demands and to remain competitive. Furthermore, the faculty discussed distance education, as well as face-to-face and blended approaches, that could be used in combination to deliver instruction. However, the faculty in this study also expressed some divergent themes. In

addition to expressing concerns for students, the faculty participants specified for whom and for what purposes distance education might be appropriate. Faculty respondents felt that distance methods might be more appropriate for highly motivated and/or adult and non-traditional learners. Likewise, they did not feel that distance education was appropriate for all disciplines or subject matters, particularly those in which they perceived a more experiential or hands-on element (e.g., science labs and musical performance). Also, academic integrity was of concern. In particular, some participants desired a means by which to authenticate user identities and to ensure academic honesty on course assessments and to proctor course exams. Lastly, the participants in this study did not singularly discuss incentives and compensation, cited as important in previous research. More often, compensation and incentives were discussed in terms of the time and effort involved in preparing and teaching distance offerings. Furthermore, both the faculty members involved and not involved expressed unfavorable attitudes toward the compensation and provision of release time or altered workload for the development of distance courses, with the involved faculty members' responses significantly more unfavorable than the faculty members who were uninvolved.

In their survey responses, faculty members suggested that, despite the provosts' importance in curricular leadership and distance education, they were unable to judge the efforts of their provosts in distance education initiatives. Provosts have been noted as playing a part in leading curricular change within their institutions (Eilerts, 1980). Likewise, provosts have been attributed with communicating the role of technology and the need to innovate instruction (Ferren & Stanton, 2004). Also, they have been identified as key figures in the success of distance education initiatives (Abel, 2005b; Covington, et

al., 2005; McCarthy & Samons, 2009). Contrary to these findings, this study demonstrated that faculty members at all levels of implementation were unable to judge the provosts' use of the distance education planning and implementation strategies.

The faculty members' mean scores on attitudinal items and scales on the Distance Education Administrator Practices survey indicated the inability to judge the provosts' use of distance education planning and implementation strategies. Mean responses on each of the 20 scale items reflecting specific strategies outlined in the Distance Education Administrator Practices Framework were between 2.04 and 3.61. Furthermore, when mean scores were calculated for the overall scale and each of the four subscales (i.e., vision, technology, support, and incentives/compensation), the scores for all variables fell between 2.5 and 3.4 on the rating scale, indicating the inability of faculty members to judge the provosts' use of strategies in these areas. Statistical comparisons using one-way and two-way analyses of variance (ANOVAs) found significant results. However, the scores being compared still reflected the inability of faculty members to judge their provosts' efforts.

These results suggest that the provosts either may not have been actively engaged in distance education efforts or that the provosts' involvement in distance education initiatives were not apparent to faculty members. The implementation of distance education requires organizational coordination and the ability of individuals to place themselves at the center of change initiatives and to foster the involvement of stakeholders and rally them behind the strategic visions (Beaudoin, 2003a, 2003b; Cornner, 2010). A key component of the provost position is to collaborate, coordinate, and to work with stakeholders on organizational change (Anderson, 2002; Johns, 1993;

Lucido, 2000; Lutz-Ritzheimer, 2005; Mech, 1997; Panec, 2008). However, as the faculty members responses suggest, they were unaware of the efforts of the provosts, thus indicating that the provosts were not directly communicating their efforts to their constituents. An alternate explanation could be that the provosts' engagement was not visible to the faculty. If the provosts were actively involved, organizational structures may have cloaked their efforts. For example, provosts have been described as handling strategic matters while charging deans with operational tasks (Mech, 1997; Paradise & Dawson, 2007). Similarly, Benton (2001) found provosts' perceptions of faculty attitudes to be more positive by virtue of their distance in the organizational hierarchy and their limited interactions with faculty. Therefore, intermediaries, such as the deans, may have been more aware of the provosts' efforts and served as liaisons between the provosts and faculty members, thus obfuscating faculty awareness of the provosts' role.

However, there was no clear consensus from the faculty in this study that such intermediaries existed at the institutions. As part of the survey, faculty members were asked to identify the title of the individual whom they thought to be most influential in leading distance education on their campuses. A total of 424 faculty members responded. While some faculty (n = 32, 7.5%) identified the provost as influential, provosts were not named in the majority of responses either. In fact, most participants (n = 118, 27.8%) indicated that they did not know who was influential in leading distance education on their campuses. Of the 154 respondents from the high-implementation institutions, a majority of these participants (n = 41, 26.6%) did identify directors as individuals primarily responsible for leading distance education on their campuses. While the titles of these individuals varied across institutions, this suggested another group of individuals

that might be considered when exploring the administrator roles in the planning and development of distance education programs.

Given the inability of faculty members to judge the provosts' efforts, this study did not directly identify significant contributions on the part of provosts in planning and implementing distance education programs, however it was just one step in understanding and assessing the role of administrators in such initiatives. As the higher education market continues to meet the challenges of increased competition and shrinking resources, distance education is just one method that must be considered to address these challenges. Top-down and grass-roots leadership must work in concert in the development of distance education programs. While the faculty perspective has received a wealth of attention, more research is needed to understand the role of administrators.

Implications for Practice

While this study was unable to identify significant practices contributing to the development of the institutional capacity for distance education, the Distance Education Administrator Practices Framework developed as part of the study provides a guide for individuals leading distance education efforts on their campuses, as well as a framework for assessing administrative efforts. The framework provides a guide for administrators in addressing institutional barriers and motivators in the development of distance education programs. The framework may also be used as a means by which to evaluate and assess the progress of distance education initiatives. Further research and study of the elements of the framework can provide administrators with a guide for how best to proceed as distance education increasingly moves to the forefront in planning institutional strategy.

Furthermore, the study raises questions regarding the role of the provost in distance education initiatives and about the perceptions of distance education leadership on campuses. The provosts have been viewed as the strategic leadership of distance education initiatives. However, the results of this study suggest that the provosts' influence is unclear from the faculty perspective. While efforts were taken to assure the reliability and validity of the survey instrument, it is possible that faculty members may not be informed enough about the efforts of the provosts for the survey to be a valid measure. But if the provosts are not influential, then it is important to understand the roles of the individuals who are perceived as influential.

Limitations of the Study

This study was subject to several limitations that must be acknowledged. First, while a variety of factors may influence the development of the institutional capacity for distance education, this study only focused on faculty perceptions of their provosts' use of a selected group of strategies. The exploration of these perceptions and the causal-comparative research design could neither indicate causation, nor could it discount the effects of other influences impacting an institution's level of distance education implementation. Likewise, survey research relies on a finite set of pre-determined assumptions in order to make observations. This limitation of survey research, as noted by Gay and Airasian (2000), did not allow for elaboration or clarification regarding the faculty perceptions. Second, as noted in the research, there may be a variety of indicators by which institutions evaluate their distance education efforts (e.g., quality, enrollments, or revenues), institutional levels of implementation represented only one indicator of the results of an institution's distance education initiatives. Third, the data gathered were only

able to provide information regarding a single moment in time (Buddenbaum & Novak, 2001; Gay & Airasian, 2000). Fourth, the study required faculty to assess the efforts of the provost they had during the 2011-2012 academic year. This direction was included due to recent turnover in the provost positions at the universities. In some cases, this may have required faculty members to recall past events or information and to assess the efforts of a provost no longer employed at the institution. Lastly, this study used a narrow study population (e.g., full-time, tenure-track faculty members in the Pennsylvania State System of Higher Education). While every effort was made to assure that the study results were generalizable, low return rates and participant self-selection were problematic. Low return rates resulted in unequal sample sizes across independent variables, thus affecting the validity of the statistical analyses conducted using the two-way analysis of variance. Furthermore, the majority of the participants in the study sample represented faculty who were involved in distance education. Subsequent studies with better controls for sample size and demographic characteristics will be needed to determine if the study results are generalizable to institutions in other contexts and that represent various institutional types (e.g., public, private, and for-profit) and institutional sizes.

Recommendations for Future Research

Building on this study, future research should continue to explore the role of campus administrators and leaders in the development and planning of distance education initiatives. Specific recommendations include the following:

- Follow-up studies with the PASSHE system should be conducted to expand and elaborate on the findings of this study.

- The Distance Education Administrator Practices Framework should be tested further to determine how the strategies in the framework function in the building of institutional capacity for distance education.
- Faculty identified the role of directors as influential in leading distance education on their campuses. This seems to be an emerging position, and more needs to be understood about what the directors are doing to lead distanced education.
- Similarly, it would be helpful to understand the perceived qualities of leaders in this area as perceived by faculty.

Conclusion

As higher education continues to grapple with the challenges of globalization, technological innovations, changing learner needs and demands, and budgetary matters, distance education provides a means by which institutions can address some of these challenges. This study attempted to identify strategies that administrators can implement to build their institutions' capacities for distance education. A survey of the literature identified a number of strategies to be used in planning distance education initiatives. The assessment of the provosts' use of these strategies as perceived by faculty undertaken in this study indicated that faculty members were unable to judge the provosts' efforts in the development of distance education. Furthermore, if the provosts are not playing a critical role in the development of distance education as indicated in previous research, then questions remain as to who is influencing the development of the institutional capacity for distance education at higher education institutions.

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APPENDICES

Appendix A Program Coding Scheme

Original Codes

Code	Category	Recode Category
1	Advertising and Public Relations	Business (Professional Field)
2	Art, Design, Music, and Performance	Fine Arts
3	Athletic Training and Exercise Science	Professional Fields
4	Business and Economics	Business (Professional Field)
5	Childhood and Family Studies	Professional Field
6	Computer Science and Engineering	Mathematics and Sciences
7	Criminology, Justice, and Law	Humanities and Social Sciences
8	Culinary Arts	Professional Fields
9	Education	Education (Professional Field)
10	Family and Consumer Sciences	Professional Fields
11	Foreign Languages and Linguistics	Humanities and Social Sciences
12	Geography and Regional Planning	Humanities and Social Sciences
13	Healthcare	Healthcare (Professional Field)
14	Hospitality, Travel, and Tourism	Professional Fields
15	Human Services , Social Work, and Counseling	Humanities and Social Sciences
16	Humanities, History, and Archaeology	Humanities and Social Sciences
17	Journalism, Media, and Communications	Humanities and Social Sciences
18	Language Arts, Literature, and Writing	Humanities and Social Sciences
19	Library Science	Professional Fields
20	Philosophy/Religious Studies	Humanities and Social Sciences
21	Political Science and Public Affairs	Humanities and Social Sciences
22	Pyschology	Mathematics and Sciences
23	Safety and Occupational Health	Professional Fields
24	Science and Mathematics	Mathematics and Sciences
25	Sociology and Anthropology	Humanities and Social Sciences
26	Other (Please Specify)	

Recoded Scheme with

Code	Category
1	Business (Professional Field)
2	Education (Professional Field)
3	Fine Arts
4	Healthcare (Professional Field)
5	Humanities and Social Sciences
6	Mathematics and Sciences
7	Professional Fields
8	Other

Appendix B Informed Consent and Survey

Notice of Informed Consent

Project: Faculty Perceptions of Selected Strategies Used by Provosts in Planning and Implementing Distance Education Initiatives

Principal Investigator: David Bruce Porter, Doctoral Student, Indiana University of Pennsylvania

Faculty Sponsor: Dr. Mary Beth Leidman, Department of Communications Media, Indiana University of Pennsylvania

You are invited to participate in this dissertation research study by completing the Distance Education Administrator Practices Survey. Your participation is completely voluntary. The following information is provided to help you make an informed decision as to whether or not to participate in the study. If at any time you have questions regarding the study, please contact the principal investigator using the contact information at the bottom of the page.

The purpose of this study is to determine faculty perceptions of specific strategies used by their provosts in planning and implementing distance education initiatives. Participation in this study requires the completion of the following Web-based survey that should take approximately 10-15 minutes to complete. As a participant, you will be asked to rate the degree to which you agree with a series of statements regarding your provost's actions in planning and implementing distance education and to provide some demographic information that will be used to make comparisons among faculty perceptions. By completing the survey, you acknowledge your consent to participate in the study.

Risks and Benefits
There are no anticipated risks for participation in this study. The researcher intends to use the information collected to complete the requirements of his doctoral degree, while at the same time contributing to the literature regarding strategies used by provosts in planning and implementing distance education initiatives. Your input is valuable in contributing to this body of knowledge. Additionally, the researcher will share the final report with all members of the study sample, regardless of participation.

Compensation
Participants will not be compensated for participating in this study. Likewise, there is no penalty for electing to not participate.

Confidentiality
Maintaining the confidentiality of participant data is of the utmost importance. All data collected as part of this study will remain in a secure location. Participant data provided

through the survey will only be shared in aggregate form in the final research report and subsequent publications. Participants will not be identified in the final report and subsequent publications.

Voluntary Participation
Your participation in this research project is strictly voluntary. You may opt out of the study by clicking the opt out link on the survey. You may withdraw from the study at any time by notifying the researcher in writing via postal or electronic mail. Should you elect to withdraw from the study, data that you have already submitted will be removed from the study pool and will not be used in the final study report or subsequent publications.

Questions Regarding Study Participation
If you have any questions regarding participation or the study, please contact the principal investigator using the contact information listed at the end of this notice.

Statement of Institutional Approval
This study has been reviewed and approved by the Indiana University of Pennsylvania Institutional Review Board for the Protection of Human Subjects (Phone: 724-357-7730).

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Directions

The following survey should take you 10-15 minutes to complete. You will be asked to provide some information about yourself and to respond to statements regarding your provost and distance education. Distance education for the purposes of this study is defined as follows:

> *Formal education process that uses technology to deliver instruction to students who are separated from the instructor to support regular substantive interaction between the students and the instructor, either synchronously or asynchronously. The technologies may include one-way and two-way transmission through open broadcast, closed circuit, cable, microwave, broadband lines, fiber optics, satellite, or wireless communication devices; audio conferencing; or video cassettes, DVD, and CD-ROMs if used in a course in conjunction with any of the technologies listed* (Middle States Commission of Higher Education, 2011).

In completing the survey, please keep in mind that you are being asked to rate your provost's use of distance education planning and implementation strategies and not your feelings toward distance education itself. ***In rating the provost, you should consider the actions of your provost from the 2011-2012 academic year.***

Please select the response for each of the following questions that best describes you.

Please indicate your gender.

- ❍ Male
- ❍ Female

At which university are you employed?

- ❍ Bloomsburg
- ❍ California
- ❍ Cheyney
- ❍ Clarion
- ❍ East Stroudsburg
- ❍ Edinboro
- ❍ Indiana
- ❍ Kutztown
- ❍ Lock Haven
- ❍ Mansfield
- ❍ Millersville
- ❍ Shippensburg
- ❍ Slippery Rock
- ❍ West Chester

How many years have you been employed by the institution you selected in the previous question?

- ❍ 5 years or less
- ❍ 6 to 15 years
- ❍ 16 years or more

Select the category that best describes your discipline.

- ❍ Advertising and Public Relations
- ❍ Art, Design, Music, and Performance
- ❍ Athletic Training and Exercise Science
- ❍ Business and Economics
- ❍ Childhood and Family Studies
- ❍ Computer Science and Engineering
- ❍ Criminology, Justice, and Law
- ❍ Culinary Arts
- ❍ Education
- ❍ Family and Consumer Sciences
- ❍ Foreign Languages and Linguistics
- ❍ Geography and Regional Planning
- ❍ Healthcare
- ❍ Hospitality, Travel, and Tourism
- ❍ Human Services , Social Work, and Counseling
- ❍ Humanities, History, and Archeology
- ❍ Journalism, Media, and Communications
- ❍ Language Arts, Literature, and Writing
- ❍ Library Science
- ❍ Philosophy/Religious Studies
- ❍ Political Science and Public Affairs
- ❍ Psychology
- ❍ Safety and Occupational Health
- ❍ Science and Mathematics
- ❍ Sociology and Anthropology
- ❍ Other (Please Specify) _____

Choose the statement that best describes your experience with distance education

- ❍ I am currently developing and/or teaching a distance education course.
- ❍ I have developed and/or taught a distance education course in the past.
- ❍ I have neither taught nor developed a distance education course.
- ❍ I will never develop or teach a distance education course.

Rate the following statements to the level with which you disagree or agree. For items for which you are unable to judge, select Unable to Judge. Please remember that you are rating your provost from the 2011-2012 academic year and that your ratings should reflect your opinion of the provost's actions and not your feelings toward distance education.

My provost inadequately solicits faculty input in planning the institution's distance education efforts.
- ❍ Strongly Disagree
- ❍ Disagree
- ❍ Unable to Judge
- ❍ Agree
- ❍ Strongly Agree

My provost adequately solicits student input in planning the institution's distance education efforts.
- ❍ Strongly Disagree
- ❍ Disagree
- ❍ Unable to Judge
- ❍ Agree
- ❍ Strongly Agree

My provost has a clearly defined plan for the institution's distance education efforts.
- ❍ Strongly Disagree
- ❍ Disagree
- ❍ Unable to Judge
- ❍ Agree
- ❍ Strongly Agree

My provost consistently communicates the institutional plan for distance education.
- ❍ Strongly Disagree
- ❍ Disagree
- ❍ Unable to Judge
- ❍ Agree
- ❍ Strongly Agree

My provost sufficiently funds distance education.
- ❍ Strongly Disagree
- ❍ Disagree
- ❍ Unable to Judge
- ❍ Agree
- ❍ Strongly Agree

My provost adequately ensures that the institution possesses a computer network capable of supporting distance education.

- ❍ Strongly Disagree
- ❍ Disagree
- ❍ Unable to Judge
- ❍ Agree
- ❍ Strongly Agree

My provost inadequately ensures faculty access to technologies used for the delivery of distance education.

- ❍ Strongly Disagree
- ❍ Disagree
- ❍ Unable to Judge
- ❍ Agree
- ❍ Strongly Agree

My provost adequately ensures student access to the technologies through which distance education is facilitated.

- ❍ Strongly Disagree
- ❍ Disagree
- ❍ Unable to Judge
- ❍ Agree
- ❍ Strongly Agree

My provost inadequately ensures that the institution has a means by which to evaluate the technologies used in distance education.

- ❍ Strongly Disagree
- ❍ Disagree
- ❍ Unable to Judge
- ❍ Agree
- ❍ Strongly Agree

My provost adequately ensures that technical support is available to faculty teaching via distance education.

- ❍ Strongly Disagree
- ❍ Disagree
- ❍ Unable to Judge
- ❍ Agree
- ❍ Strongly Agree

My provost adequately ensures that technical support is available to students participating in distance education.
- ❍ Strongly Disagree
- ❍ Disagree
- ❍ Unable to Judge
- ❍ Agree
- ❍ Strongly Agree

My provost inadequately ensures that instructional designers are available to assist faculty in the development of distance education.
- ❍ Strongly Disagree
- ❍ Disagree
- ❍ Unable to Judge
- ❍ Agree
- ❍ Strongly Agree

My provost adequately ensures faculty access to training in the use of distance education technologies.
- ❍ Strongly Disagree
- ❍ Disagree
- ❍ Unable to Judge
- ❍ Agree
- ❍ Strongly Agree

My provost adequately ensures faculty access to training in distance education pedagogy.
- ❍ Strongly Disagree
- ❍ Disagree
- ❍ Unable to Judge
- ❍ Agree
- ❍ Strongly Agree

My provost does not encourage faculty to support one another in the institution's distance education efforts.
- ❍ Strongly Disagree
- ❍ Disagree
- ❍ Unable to Judge
- ❍ Agree
- ❍ Strongly Agree

My provost effectively provides a means by which faculty can get answers to administrative questions regarding distance education.

- ❍ Strongly Disagree
- ❍ Disagree
- ❍ Unable to Judge
- ❍ Agree
- ❍ Strongly Agree

My provost ensures that a sufficient level of student services is offered to support students who are participating via distance education.

- ❍ Strongly Disagree
- ❍ Disagree
- ❍ Unable to Judge
- ❍ Agree
- ❍ Strongly Agree

My provost ensures that students receive an orientation in how to be successful online learners.

- ❍ Strongly Disagree
- ❍ Disagree
- ❍ Unable to Judge
- ❍ Agree
- ❍ Strongly Agree

My provost fails to assure faculty are compensated for developing distance education.

- ❍ Strongly Disagree
- ❍ Disagree
- ❍ Unable to Judge
- ❍ Agree
- ❍ Strongly Agree

My provost provides alternate workload or release time to faculty developing distance education.

- ❍ Strongly Disagree
- ❍ Disagree
- ❍ Unable to Judge
- ❍ Agree
- ❍ Strongly Agree

For each of the following items, please type a brief response to the item.

In one or two sentences, briefly describe your general feelings toward distance education.

What is the ***title*** of the individual whom you believe has been most influential in leading distance education at your institution?

Appendix C Email Invitation

[Faculty member name]:

Distance education has become increasingly important to colleges and universities in fulfilling their missions, providing access to education, and remaining competitive in the higher education market. Faculty members, such as yourself, have been identified as key stakeholders in the development of their institution's distance education initiatives. This dissertation research study examines faculty perceptions of provosts' use of distance education planning and implementation strategies.

I invite you to complete the Distance Education Administrator Practices Survey. Your participation will assist in the completion of my degree requirements, as well as provide important insights to the practices and considerations that empower distance education initiatives.

Your participation in the survey is voluntary. AIl information will be kept confidential, and only summary information will be reported.

The survey should take 10-15 minutes to complete and includes items related to your provost's use of distance education planning and implementation strategies. You will also be asked to provide some demographic information.

I hope you will consider participating in the study. Your time and participation are appreciated. Should you have any questions regarding the study, please contact the principal investigator listed below.

Thank you and best regards,

David Bruce Porter
Principal Investigator and Doctoral Candidate
Department of Communications Media
Indiana University of Pennsylvania
950 Grant St. Delaney Hall, Suite G35
Indiana, PA 15705
Phone: 724-357-4743
dporter@iup.edu

Dr. Mary Beth Leidman
Faculty Sponsor
Department of Communications Media
121 Stouffer Hall
1175 Maple Street
Indiana, PA 15705
Phone: 724-357-2492
mbleid@iup.edu

*This project has been reviewed and approved by the Indiana University of Pennsylvania Institutional Review Board for the Protection of Human Subjects (Phone: 724-357-2223).

Follow this link to the Survey:

Take the Survey

Or copy and paste the URL below into your internet browser:

[Survey URL]

Follow the link to opt out of future emails:

Click here to unsubscribe

Appendix D Survey Reminder Message

[Faculty name]:

If you have not yet completed the Distance Education Administrator Practices Survey, I want to again solicit your participation. ***The survey will be available until December 15, 2013.***

This survey is being conducted as part of my doctoral dissertation research project to assess faculty perceptions of the strategies used by provosts in planning and implementing distance education programs.* Both faculty who are involved and not involved in distance education are encouraged to participate. However, your participation in the survey is voluntary.

The survey takes approximately 10-15 minutes to complete. You will be asked to provide some information about yourself and to respond to items regarding your 2011-2012 provost's application of planning and implementation strategies to distance education. All information will be kept confidential, and only summary information will be reported.

Please consider participating in the study. Your time and participation are appreciated. Should you have any questions regarding the study, please feel free to contact principal investigator listed below.

Thank you and best regards,

David Bruce Porter
Principal Investigator and Doctoral Candidate
Department of Communications Media
Indiana University of Pennsylvania
950 Grant St. Delaney Hall, Suite G35
Indiana, PA 15705
Phone: 724-357-4743
dporter@iup.edu

Dr. Mary Beth Leidman
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121 Stouffer Hall
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Follow this link to the Survey:

Take the Survey

Or copy and paste the URL below into your internet browser:

[Survey URL]

Follow the link to opt out of future emails:

Click here to unsubscribe

Appendix E Data Tables for Two-Way ANOVAs

Means and Standard Deviations Level x Gender

Overall Score: Level x Gender

Level x Gender	*n*	*M*	*SD*
High			
Male	80	3.17	0.72
Female	92	3.08	0.62
Moderate			
Male	130	2.99	0.51
Female	123	3.00	0.53
Low			
Male	25	2.94	0.59
Female	30	2.89	0.65

Vision Score: Level x Gender

Level x Gender	*n*	*M*	*SD*
High			
Male	80	2.91	0.80
Female*	92	2.83	0.74
Moderate			
Male*	130	2.72	0.64
Female*	123	2.74	0.67
Low			
Male	25	2.74	0.77
Female*	30	2.71	0.74

Technology Score: Level x Gender

Level x Gender	*n*	*M*	*SD*
High			
Male *	80	3.44	0.84
Female*	92	3.29	0.79
Moderate			
Male*	130	3.14	0.65
Female*	123	3.17	0.42
Low			
Male	25	3.01	0.68
Female	30	3.04	0.90

*Not normally distributed

Support Score: Level x Gender

Level x Gender	*n*	*M*	*SD*
High			
Male	80	3.29	0.87
Female	92	3.21	0.69
Moderate			
Male	130	3.11	0.62
Female*	123	3.12	0.65
Low			
Male*	25	3.00	0.68
Female	30	2.99	0.74

Compensation Score: Level x Gender

Level x Gender	*n*	*M*	*SD*
High			
Male *	80	2.76	0.92
Female*	92	2.65	0.81
Moderate			
Male*	130	2.81	0.74
Female*	123	2.79	0.78
Low			
Male	25	3.02	0.94
Female*	30	2.60	0.87

* Not normally distributed

Overall Score: Level x Gender (Straight-Line Responses Excluded)

Level x Gender	*n*	*M*	*SD*
High			
Male	78	3.17	0.74
Female	83	3.08	0.66
Moderate			
Male	115	2.99	0.55
Female	115	3.00	0.55
Low			
Male	25	2.94	0.59
Female	30	2.89	0.65

Vision Score: Level x Gender (Straight-Line Responses Excluded)

Level x Gender	*n*	*M*	*SD*
High			
Male	78	2.90	0.81
Female	83	2.81	0.78
Moderate			
Male	115	2.69	0.68
Female	115	2.72	0.68
Low			
Male	25	2.74	0.77
Female	30	2.71	0.74

Technology Score: Level x Gender (Straight-Line Responses Excluded)

Level x Gender	*n*	*M*	*SD*
High			
Male *	78	3.45	0.85
Female*	83	3.32	0.82
Moderate			
Male*	115	3.16	0.69
Female*	115	3.19	0.67
Low			
Male	25	3.01	0.68
Female	30	3.04	0.90

*Not normally distributed

Support Score: Level x Gender (Straight-Line Responses Excluded)

Level x Gender	*n*	*M*	*SD*
High			
Male	78	3.29	0.88
Female	83	3.24	0.72
Moderate			
Male	115	3.13	0.65
Female	115	3.13	0.67
Low			
Male*	25	3.00	0.68
Female	30	2.99	0.74

Compensation Score: Level x Gender (Straight-Line Responses Excluded)

Level x Gender	*n*	*M*	*SD*
High			
Male *	78	2.75	0.93
Female*	83	2.61	0.85
Moderate			
Male*	115	2.78	0.78
Female*	115	2.77	0.80
Low			
Male	25	3.02	0.94
Female*	30	2.60	0.87

* Not normally distributed

Means and Standard Deviations for Level x Years of Service

Overall Score: Level x Years of Service

Level x Years	*n*	*M*	*SD*
High			
<15	95	3.19	0.67
16>	77	3.03	0.67
Moderate			
<15	149	2.95	0.54
16>	104	3.07	0.49
Low			
<15	30	2.79	0.64
16>	25	3.06	0.56

Vision Score: Level x Years of Service

Level x Years	*n*	*M*	*SD*
High			
<15	95	2.93	0.79
16>	77	2.78	0.75
Moderate			
<15*	149	2.67	0.67
16>*	104	2.82	0.62
Low			
<15	30	2.59	0.85
16>	25	2.88	0.58

Technology Score: Level x Years of Service

Level x Years	*n*	*M*	*SD*
High			
<15*	95	3.45	0.79
16>*	77	3.24	0.84
Moderate			
<15*	149	3.13	0.67
16>*	104	3.19	0.62
Low			
<15	30	2.87	0.87
16>	25	3.22	0.68

*Not normally distributed

Support Score: Level x Years of Service

Level x Years	*n*	*M*	*SD*
High			
<15	95	3.32	0.79
16>	77	3.16	0.76
Moderate			
<15*	149	3.08	0.64
16>	104	3.17	0.61
Low			
<15	30	2.92	0.87
16>	25	3.08	0.70

Compensation Score: Level x Years of Service

Level x Years	*n*	*M*	*SD*
High			
<15*	95	2.79	0.88
16>*	77	2.59	0.83
Moderate			
<15*	149	2.68	0.77
16>*	104	2.97	0.70
Low			
<15*	30	2.55	0.96
16>	25	3.08	0.80

* Not normally distributed

Overall Score: Level x Years of Service (Straight-Line Responses Excluded)

Level x Years	*n*	*M*	*SD*
High			
<15	88	3.21	0.69
16>	73	3.03	0.69
Moderate			
<15	134	2.94	0.57
16>	96	3.07	0.51
Low			
<15	30	2.79	0.64
16>	25	3.06	0.56

Vision Score: Level x Years of Service (Straight-Line Responses Excluded)

Level x Years	*n*	*M*	*SD*
High			
<15	88	2.92	0.82
16>	73	2.77	0.77
Moderate			
<15	134	2.63	0.70
16>	96	2.80	0.64
Low			
<15	30	2.59	0.85
16>	25	2.88	0.58

Technology Score: Level x Years of Service (Straight-Line Responses Excluded)

Level x Years	*n*	*M*	*SD*
High			
<15*	88	3.49	0.81
16>*	73	3.26	0.86
Moderate			
<15*	134	3.15	0.70
16>*	96	3.21	0.64
Low			
<15	30	2.87	0.85
16>	25	3.22	0.68

*Not normally distributed

Support Score: Level x Years of Service (Straight-Line Responses Excluded)

Level x Years	*n*	*M*	*SD*
High			
<15	88	3.34	0.81
16>	73	3.17	0.78
Moderate			
<15	134	3.09	0.68
16>	96	3.19	0.63
Low			
<15	30	2.92	0.71
16>	25	3.08	0.70

Compensation Score: Level x Years of Service (Straight-Line Responses Excluded)

Level x Years	*n*	*M*	*SD*
High			
<15*	88	2.77	0.91
16>*	73	2.57	0.85
Moderate			
<15*	134	2.64	0.80
16>*	96	2.97	0.73
Low			
<15*	30	2.55	0.96
16>	25	3.08	0.80

* Not normally distributed

Means and Standard Deviation for Level x Involvement

Overall Score: Level x Involvement

Level x Involvement	*n*	*M*	*SD*
High			
Involved	130	3.08	0.68
Not Involved*	42	3.23	0.64
Moderate			
Involved	161	3.04	0.56
Not Involved*	92	2.93	0.44
Low			
Involved*	31	2.91	0.69
Not Involved	24	2.91	0.53

Vision Score: Level x Involvement

Level x Involvement	*n*	*M*	*SD*
High			
Involved	130	2.80	0.78
Not Involved*	42	3.07	0.70
Moderate			
Involved	161	2.72	0.72
Not Involved*	92	2.75	0.52
Low			
Involved	31	2.66	0.74
Not Involved	24	2.80	0.76

Technology Score: Level x Involvement

Level x Involvement	*n*	*M*	*SD*
High			
Involved*	130	3.35	0.83
Not Involved*	42	3.40	0.77
Moderate			
Involved*	161	3.21	0.70
Not Involved*	92	3.07	0.54
Low			
Involved	31	3.10	0.95
Not Involved	24	2.94	0.56

*Not normally distributed

Support Score: Level x Involvement

Level x Involvement	*n*	*M*	*SD*
High			
Involved	130	3.23	0.79
Not Involved	42	3.31	0.73
Moderate			
Involved	161	3.20	0.68
Not Involved*	92	2.97	0.50
Low			
Involved	31	3.01	0.81
Not Involved	24	2.97	0.55

Compensation Score: Level x Involvement

Level x Involvement	*n*	*M*	*SD*
High			
Involved*	130	2.61	0.88
Not Involved*	42	2.98	0.73
Moderate			
Involved*	161	2.73	0.80
Not Involved*	92	2.91	0.65
Low			
Involved	31	2.73	0.96
Not Involved*	24	2.88	0.89

* Not normally distributed

Overall Score: Level x Involvement (Straight-Line Responses Excluded)

Level x and Involvement	n	M	SD
High			
Involved	125	3.09	0.69
Not Involved*	36	3.27	0.68
Moderate			
Involved	153	3.04	0.58
Not Involved*	77	2.91	0.48
Low			
Involved*	31	2.91	0.69
Not Involved	24	2.91	0.53

Vision Score: Level x Involvement (Straight-Line Responses Excluded)

Level x Involvement	*n*	*M*	*SD*
High			
Involved	125	2.79	0.80
Not Involved	36	3.08	0.76
Moderate			
Involved	153	2.71	0.73
Not Involved*	77	2.70	0.56
Low			
Involved	31	2.66	0.74
Not Involved	24	2.81	0.76

Technology Scores: Level x Involvement (Straight-Line Responses Excluded)

Level x Involvement	*n*	*M*	*SD*
High			
Involved*	125	3.36	0.85
Not Involved	36	3.47	0.81
Moderate			
Involved*	153	3.22	0.71
Not Involved*	77	3.08	0.60
Low			
Involved	31	3.10	0.95
Not Involved	24	2.94	0.56

*Not normally distributed

Support Scores: Level x Involvement (Straight-Line Responses Excluded)

Level x Involvement	*n*	*M*	*SD*
High			
Involved	125	3.24	0.81
Not Involved	36	3.36	0.78
Moderate			
Involved	153	3.21	0.70
Not Involved*	77	2.96	0.55
Low			
Involved	31	3.01	0.81
Not Involved	24	2.97	0.55

Compensation Scores: Level x Involvement (Straight-Line Responses Excluded)

Level x Involvement	*n*	*M*	*SD*
High			
Involved*	125	2.60	0.90
Not Involved*	36	2.97	0.79
Moderate			
Involved*	153	2.72	0.82
Not Involved	77	2.90	0.71
Low			
Involved	31	2.73	0.96
Not Involved*	24	2.88	0.89

* Not normally distributed

Appendix F Data Tables for Supplemental Analyses

Means and Standard Deviations for Attitude Items by Gender

	Gender			
	Male (n = 235)		Female (n = 245)	
Scale Item	*M*	*SD*	*M*	*SD*
Solicits faculty input in planning	2.95	1.08	2.89	1.11
Solicits student input in planning	2.81	0.80	2.77	0.81
Has clearly defined plan	2.75	0.97	2.82	0.99
Communicates the plan	2.51	1.04	2.51	1.05
Funds distance education	2.91	1.02	2.85	0.99
Ensures a reliable network infrastructure	3.46	0.99	3.30	1.08
Ensures faculty access to technologies	3.19	1.13	3.20	1.04
Ensures student access to technologies	3.30	0.89	3.29	0.96
Ensures a means to evaluate technologies	2.96	1.02	3.02	1.04
Ensures technical support for faculty	3.35	1.10	3.31	1.10
Ensures technical support for students	3.28	0.91	3.32	0.94
Ensures instructional design support	3.11	1.14	3.14	1.13
Ensures faculty access to technology training	3.42	1.11	3.50	1.02
Ensures faculty access to pedagogical training	3.13	1.15	3.10	1.05
Encourages peer support	3.21	0.96	3.11	1.06
Provides channel to address administrative questions	3.04	0.98	2.98	1.04
Ensures a sufficient level of student support services	3.07	0.84	3.05	0.87
Ensures student orientation to online learning	2.83	0. 92	2.73	0.92
Assures faculty are compensated	3.31	1.13	3.33	1.10
Provides altered workload and release time	2.31	0.98	2.10	1.00

Overall Scale and Subscale Means and Standard Deviations

	Gender			
	Male (n = 235)		Female (n = 245)	
Scale/Subscale	*M*	*SD*	*M*	*SD*
Overall	3.05	0.61	3.02	0.58
Vision	2.79	0.72	2.77	0.70
Technology	3.23	0.74	3.20	0.74
Support	3.16	0.72	3.14	0.68
Compensation	2.81	0.82	2.71	0.80

ANOVA for Overall Scores by Gender

Source	*SS*	*df*	*MS*	*F*	*p*
Between	0.10	1	0.10	.29	.59
Within	168.65	478	0.35		
Total	168.75	479			

ANOVA for Vision Scores by Gender

Source	*SS*	*df*	*MS*	*F*	*p*
Between	0.04	1	0.04	.07	.79
Within	241.02	478	0.50		
Total	241.06	478			

ANOVA for Technology Scores by Gender

Source	*SS*	*df*	*MS*	*F*	*p*
Between	0.09	1	0.09	.16	.69
Within	260.61	478	0.55		
Total	260.69	479			

ANOVA for Support Scores by Gender

Source	*SS*	*df*	*MS*	*F*	*p*
Between	0.06	1	.06	.11	.74
Within	232.97	478	.49		
Total	233.02	479			

ANOVA for Compensation Scores by Gender

Source	*SS*	*df*	*MS*	*F*	*p*
Between	1.16	1	1.16	1.76	.19
Within	316.26	478	0.66		
Total	317.43	479			

Means and Standard Deviations for Attitude Items by Gender (Straight-Line Responses Excluded

	Gender			
	Male (n = 218)		Female (n = 228)	
Scale Item	*M*	*SD*	*M*	*SD*
Solicits faculty input in planning	2.95	1.12	2.88	1.15
Solicits student input in planning	2.79	0.83	2.75	0.84
Has clearly defined plan	2.73	1.01	2.81	1.02
Communicates the plan	2.48	1.07	2.48	1.08
Funds distance education	2.90	1.06	2.84	1.03
Ensures a reliable network infrastructure	3.50	1.01	3.32	1.12
Ensures faculty access to technologies	3.21	1.17	3.21	1.08
Ensures student access to technologies	3.32	0.92	3.31	0.99
Ensures a means to evaluate technologies	2.96	1.06	3.02	1.08
Ensures technical support for faculty	3.38	1.14	3.34	1.14
Ensures technical support for students	3.30	0.95	3.34	0.97
Ensures instructional design support	3.12	1.18	3.15	1.17
Ensures faculty access to technology training	3.45	1.14	3.54	1.05
Ensures faculty access to pedagogical training	3.14	1.19	3.11	1.09
Encourages peer support	3.23	0.99	3.12	1.10
Provides channel to address administrative questions	3.04	1.02	2.98	1.07
Ensures a sufficient level of student support services	3.08	0.87	3.05	0.90
Ensures student orientation to online learning	2.82	0.95	2.71	0.96
Assures faculty are compensated	3.34	1.17	3.35	1.14
Provides altered workload and release time	2.26	1.00	2.04	1.00

Overall Scale and Subscale Means and Standard Deviations (Straight-Line Responses Excluded)

	Gender			
	Male (n = 218)		Female (n = 228)	
Scale/Subscale	*M*	*SD*	*M*	*SD*
Overall	3.50	0.63	3.02	0.60
Vision	2.77	0.74	2.75	0.73
Technology	3.25	0.77	3.22	0.76
Support	3.17	0.75	3.15	0.70
Compensation	2.80	0.85	2.69	0.83

ANOVA for Overall Scores by Gender (Straight-Line Responses Excluded)

Source	*SS*	*df*	*MS*	*F*	*p*
Between	.11	1	0.11	.29	.59
Within	168.60	444	0.38		
Total	168.71	445			

ANOVA for Vision Scores by Gender (Straight-Line Responses Excluded)

Source	*SS*	*df*	*MS*	*F*	*p*
Between	.04	1	0.04	.07	.80
Within	239.22	444	0.54		
Total	239.26	445			

ANOVA for Technology Scores by Gender (Straight-Line Responses Excluded)

Source	*SS*	*df*	*MS*	*F*	*p*
Between	.10	1	0.10	.12	.73
Within	258.92	444	0.58		
Total	259.02	445			

ANOVA for Support Scores by Gender (Straight-Line Responses Excluded)

Source	*SS*	*df*	*MS*	*F*	*p*
Between	.06	1	0.06	.12	.73
Within	232.14	444	0.52		
Total	232.20	445			

ANOVA for Compensation Scores by Gender (Straight-Line Responses Excluded)

Source	*SS*	*df*	*MS*	*F*	*p*
Between	1.23	1	1.23	1.74	.19
Within	314.13	444	0.71		
Total	315.36	445			

Means and Standard Deviations for Attitude Items by Years of Service

	Years of Service			
	< 15 years (n = 274)		> 16 years (n = 206)	
Scale Item	*M*	*SD*	*M*	*SD*
Solicits faculty input in planning	2.88	1.12	2.97	1.05
Solicits student input in planning	2.76	0.82	2.83	0.79
Has clearly defined plan	2.76	1.02	2.82	0.93
Communicates the plan	2.51	1.09	2.52	0.99
Funds distance education	2.84	1.03	2.93	0.98
Ensures a reliable network infrastructure	3.37	1.06	3.39	1.01
Ensures faculty access to technologies	3.21	1.10	3.17	1.06
Ensures student access to technologies	3.27	0.95	3.32	0.89
Ensures a means to evaluate technologies	3.00	1.08	2.98	0.97
Ensures technical support for faculty	3.28	1.14	3.40	1.04
Ensures technical support for students	3.31	0.97	3.29	0.87
Ensures instructional design support	3.12	1.17	3.14	1.10
Ensures faculty access to technology training	3.43	1.07	3.50	1.05
Ensures faculty access to pedagogical training	3.08	1.11	3.17	1.08
Encourages peer support	3.18	1.04	3.14	0.96
Provides channel to address administrative questions	3.03	1.02	2.99	1.00
Ensures a sufficient level of student support services	3.09	0.88	3.01	0.82
Ensures student orientation to online learning	2.78	0.94	2.78	0.89
Assures faculty are compensated	3.31	1.15	3.33	1.07
Provides altered workload and release time	2.09	1.00	2.35	0.97

Overall Scale and Subscale Means and Standard Deviations

	Years of Service			
	< 15 years (n = 274)		< 15 years (n = 274)	
Scale/Subscale	*M*	*SD*	*M*	*SD*
Overall	3.02	0.61	3.05	0.57
Vision	2.75	0.74	2.82	0.66
Technology	3.21	0.76	3.21	0.71
Support	3.14	0.71	3.16	0.68
Compensation	2.70	0.83	2.84	0.79

ANOVA for Overall Scores by Years of Service

Source	*SS*	*df*	*MS*	*F*	*p*
Between	0.15	1	0.15	0.44	.51
Within	168.59	478	0.35		
Total	168.75	479			

ANOVA for Vision Scores by Years of Service

Source	*SS*	*df*	*MS*	*F*	*p*
Between	0.50	1	0.50	0.99	.32
Within	240.56	478	0.50		
Total	241.06	479			

ANOVA for Technology Scores by Years of Service

Source	*SS*	*df*	*MS*	*F*	*p*
Between	0.00	1	0.00	0.00	.99
Within	260.69	478	0.55		
Total	260.69	479			

ANOVA for Support Scores by Years of Service

Source	*SS*	*df*	*MS*	*F*	*p*
Between	0.02	1	0.02	0.04	.85
Within	233.01	478	0.49		
Total	233.02	479			

ANOVA for Compensation Scores by Years of Service

Source	*SS*	*df*	*MS*	*F*	*p*
Between	2.29	1	2.29	3.48	.06
Within	315.13	478	0.66		
Total	317.43	479			

Means and Standard Deviations for Attitude Items by Years of Service (Straight-Line Responses Excluded)

	Years of Service			
	< 15 years (n = 252)		> 16 years (n = 194)	
Scale Item	*M*	*SD*	*M*	*SD*
Solicits faculty input in planning	2.87	1.17	2.97	1.09
Solicits student input in planning	2.74	0.85	2.82	0.81
Has clearly defined plan	2.74	1.06	2.81	0.96
Communicates the plan	2.46	1.13	2.49	1.01
Funds distance education	2.83	1.07	2.93	1.01
Ensures a reliable network infrastructure	3.40	1.10	3.41	1.04
Ensures faculty access to technologies	3.23	1.15	3.19	1.09
Ensures student access to technologies	3.29	0.99	3.34	0.92
Ensures a means to evaluate technologies	3.00	1.13	2.97	0.99
Ensures technical support for faculty	3.31	1.18	3.42	1.07
Ensures technical support for students	3.33	1.00	3.30	0.89
Ensures instructional design support	3.13	1.21	3.14	1.13
Ensures faculty access to technology training	3.46	1.11	3.54	1.08
Ensures faculty access to pedagogical training	3.08	1.16	3.18	1.12
Encourages peer support	3.19	1.09	3.15	0.99
Provides channel to address administrative questions	3.03	1.07	2.98	1.03
Ensures a sufficient level of student support services	3.10	0.92	3.02	0.84
Ensures student orientation to online learning	2.77	0.98	2.76	0.92
Assures faculty are compensated	3.34	1.20	3.35	1.10
Provides altered workload and release time	2.01	1.00	2.31	0.99

Overall Scale and Subscale Means and Standard Deviations (Straight-Line Responses Excluded)

	Years of Service			
	< 15 years (n = 274)		< 15 years (n = 274)	
Scale/Subscale	*M*	*SD*	*M*	*SD*
Overall	3.02	0.64	3.05	0.59
Vision	2.73	0.77	2.80	0.58
Technology	3.23	0.79	3.23	0.73
Support	3.16	0.74	3.17	0.70
Compensation	2.68	0.86	2.83	0.81

ANOVA for Overall Scores by Years of Service (Straight-Line Responses Excluded)

Source	*SS*	*df*	*MS*	*F*	*p*
Between	0.16	1	0.16	0.42	.52
Within	168.55	444	0.38		
Total	168.71	445			

ANOVA for Vision Scores by Years of Service (Straight-Line Responses Excluded)

Source	*SS*	*df*	*MS*	*F*	*p*
Between	0.63	1	0.63	1.16	.28
Within	238.63	444	0.54		
Total	239.26	445			

ANOVA for Technology Scores by Years of Service (Straight-Line Responses Excluded)

Source	*SS*	*df*	*MS*	*F*	*p*
Between	0.002	1	0.002	0.003	0.96
Within	259.01	444	0.58		
Total	259.02	445			

ANOVA for Support Scores by Years of Service (Straight-Line Responses Excluded)

Source	*SS*	*df*	*MS*	*F*	*p*
Between	0.10	1	0.10	0.02	.89
Within	232.19	444	0.52		
Total	232.20	445			

ANOVA for Compensation Scores by Years of Service (Straight-Line Responses Excluded)

Source	*SS*	*df*	*MS*	*F*	*p*
Between	2.66	1	2.66	3.78	.05
Within	312.70	444	0.70		
Total	315.36	445			

Means and Standard Deviations for Attitude Items by Involvement

	Involvement			
	Involved (n = 322)		Uninvolved (n = 158)	
Scale Item	*M*	*SD*	*M*	*SD*
Solicits faculty input in planning	2.93	1.15	2.90	0.97
Solicits student input in planning	2.76	0.83	2.84	0.76
Has clearly defined plan	2.75	1.03	2.85	0.88
Communicates the plan	2.46	1.09	2.63	0.93
Funds distance education	2.83	1.13	2.98	0.69
Ensures a reliable network infrastructure	3.47	1.07	3.19	0.93
Ensures faculty access to technologies	3.20	1.15	3.20	0.93
Ensures student access to technologies	3.34	0.98	3.19	0.80
Ensures a means to evaluate technologies	3.00	1.08	2.97	0.92
Ensures technical support for faculty	3.44	1.15	3.11	0.95
Ensures technical support for students	3.38	0.98	3.14	0.78
Ensures instructional design support	3.13	1.22	3.11	0.93
Ensures faculty access to technology training	3.55	1.11	3.28	0.95
Ensures faculty access to pedagogical training	3.17	1.19	3.01	0.90
Encourages peer support	3.13	1.08	3.23	0.84
Provides channel to address administrative questions	3.02	1.09	3.00	0.83
Ensures a sufficient level of student support services	3.11	0.92	2.96	0.71
Ensures student orientation to online learning	2.83	0.97	2.69	0.80
Assures faculty are compensated	3.38	1.20	3.21	0.90
Provides altered workload and release time	1.99	0.98	2.64	0.88

Overall Scale and Subscale Means and Standard Deviations by Involvement

	Involvement			
	Involved (n = 322)		Uninvolved (n = 158)	
Scale/Subscale	*M*	*SD*	*M*	*SD*
Overall	3.04	0.62	3.01	0.53
Vision	2.75	0.75	2.84	0.63
Technology	3.25	0.78	3.14	0.63
Support	3.19	0.74	3.06	0.59
Compensation	2.68	0.85	2.92	0.71

ANOVA Results for Involvement

Scale/Subscale	*Welch F*	*df1*	*df2*	*p*
Overall	0.45	1	362.87	.51
Vision	2.04	1	365.91	.15
Technology	3.05	1	378.00	.81
Support	4.59	1	380.68	.03*
Compensation	10.67	1	367.05	.001**

* $p < .05$. ** $p < .01$

Means and Standard Deviations for Attitude Items by Involvement (Straight-Line Responses Excluded)

	Involvement			
	Involved (n = 309)		Uninvolved (n = 137)	
Scale Item	*M*	*SD*	*M*	*SD*
Solicits faculty input in planning	2.93	1.17	2.88	1.04
Solicits student input in planning	2.75	0.84	2.82	0.82
Has clearly defined plan	2.74	1.05	2.82	0.95
Communicates the plan	2.43	1.11	2.58	0.99
Funds distance education	2.83	1.15	2.98	0.74
Ensures a reliable network infrastructure	3.49	1.09	3.22	1.00
Ensures faculty access to technologies	3.20	1.17	3.23	1.00
Ensures student access to technologies	3.36	1.00	3.22	0.86
Ensures a means to evaluate technologies	3.00	1.11	2.96	1.00
Ensures technical support for faculty	3.46	1.17	3.13	1.02
Ensures technical support for students	3.39	1.00	3.16	0.83
Ensures instructional design support	3.14	1.25	3.13	1.00
Ensures faculty access to technology training	3.57	1.12	3.32	1.01
Ensures faculty access to pedagogical training	3.17	1.21	3.01	0.96
Encourages peer support	3.14	1.11	3.26	0.89
Provides channel to address administrative questions	3.02	1.11	3.00	0.89
Ensures a sufficient level of student support services	3.11	0.94	2.96	0.77
Ensures student orientation to online learning	2.82	0.99	2.64	0.85
Assures faculty are compensated	3.39	1.22	3.24	0.97
Provides altered workload and release time	1.95	0.98	2.58	0.93

Overall Scale and Subscale Means and Standard Deviations (Straight-Line Responses Excluded)

	Involvement			
	Involved (n = 309)		Uninvolved (n = 137)	
Scale/Subscale	*M*	*SD*	*M*	*SD*
Overall	3.04	0.64	3.01	0.57
Vision	2.74	0.76	2.82	0.67
Technology	3.26	0.80	3.16	0.68
Support	3.20	0.75	3.07	0.64
Compensation	2.67	0.87	2.91	0.76

ANOVA for Overall Scores by Involvement (Straight-Line Responses Excluded)

Source	*SS*	*df*	*MS*	*F*	*p*
Between	0.13	1	0.13	0.35	.56
Within	168.58	444	0.38		
Total	168.71	445			

ANOVA for Vision Scores by Involvement (Straight-Line Responses Excluded)

Welch F	*df1*	*df2*	*p*
1.21	1	294.06	.27

ANOVA for Technology Scores by Involvement (Straight-Line Responses Excluded)

Source	*SS*	*df*	*MS*	*F*	*p*
Between	1.07	1	1.07	1.84	.18
Within	257.95	444	0.58		
Total	259.02	445			

ANOVA for Support Scores by Involvement (Straight-Line Responses Excluded)

Welch F	*df1*	*df2*	*p*
3.70	1	306.27	.06

ANOVA for Compensation Scores by Involvement (Straight-Line Responses Excluded)

Welch F	*df1*	*df2*	*p*
8.83	1	293.75	.003*

* $p < .01$

Appendix G Coding Schemes for Attitude Comments

Coding Scheme for Attitude

Code	Attitude
1	Overtly Positive
2	Positive with Qualifications
3	Neutral
4	Negative with Qualifications
5	Overtly Negative

Coding Scheme for Themes

Code	Theme
1	Student concerns
2	Quality
3	Support
4	Technology
5	Institutional Strategy/Competitiveness
6	Time/Effort
7	Teaching Method
8	Appropriate for Subject Area
9	Academic Integrity

Appendix H Attitude Comments

Attitude	Theme	Comment
1		I enjoy teaching online and believe it is the future of higher education
1		It is a good education tool to deliver content to students.
1		I thoroughly enjoy teaching using an online platform.
1		Positive.
1		I love it.
1		Great and the educational model for the future
1		I think online education has a place in higher learning. Personally, I like it and use it every semester.
1		I believe that distance education should be an integral and continuously evolving part of higher education.
1		The motivation for delivering instruction via diatance education is to make a difference; a difference in the way instructors teach and student learn.
1		I think it is a valuable part of a well-rounded university.
1		I support the use of distance education.
1		It's future.
1		It is a necessity and must be supported.
1		It is definitely going to become a much larger part of higher education. I enjoyed developing an online course but since I'm retiring soon I probably will not develop others.
1		It is the wave of the future and should be supported at all levels.
1		iT IS HERE TO STAY. tECHNOLOGY DRIVES EVERYTHING
1		Fuly supported
1		Distance education is the new channel for higher education. It deserves all the attention in the academic world.
1		one of the most important platforms of delivery
1		it is generaly successful
1		I teach many distance education classes and am currently in an online doctoral program so I am found of DE. It is here to stay
1		I am a strong supporter to DE and the benefits it bring to our university
1		Very positive
1		It is a good medium
1		I think it has a place in post-secondary education and that it can be done well.
1		That is the future.
1		It seems to be a fair practice at IUP
1		I have positive feelings toward distance education. It allows creativity in designing and delivering course material, assignments, and exams.

Attitude	Theme	Comment
1		I have been teaching DE classes (at least once a year) for the last 6 years. I have formally evaluated how I can make improvements, attended conferences (on my own dime), and worked with others, as it is am important tool. Teaching DE has helped me becomea better teacher in all of my classes. I am especially a fan of Hybrid classes, though have only taught 1.
1		Love it...taught my first web based course in 1996
1		I feel it is a necessity.
1		I can see a clear benefit to offering distance education. I have been a student in courses that were offered via distance ed.
1		I am going to buy into it.
1		I would like to learn how to facilitate an online class.
1		Distance Education is the future of education.
1		Positive
1		Positive. I look forward to participate in the planning of distance education.
1		Distance education is the future of higher education. It has come to stay.
1	1	I love distance education. I like developing it and teaching it and feel it is necessary for older students who are working and have families.
1	1	It is a very positive way to reach more students in a structured academic environment.
1	1	It works well for students who choose it because it fits their learning styles.
1	1	I enjoy teaching online courses in the summer and winter terms. Students are able to "catch-up" at these times.
1	1	Valuable tool to broaden University's reach of interested students, especially working professionals
1	1	I support distance education because it allows people who are near the college or who may have disabilities to participate in college learning.
1	1	It is a new frontier that will transform the way we offer educational services. I believe in it as a viable means of providing educational programs to students near and far. I am in strong support of Distance Education.
1	1	Useful way to provide classes to students.
1	1	Excellent alternative access to courses for traditional and nontraditional students.
1	1	DE is the future of teaching and reaching out to students who otherwise could not attend traditional classes on campus.
1	1	I think it can be very helpful to students.
1	1	I believe it is a viable option, especially for adult learners.
1	1	I think it's a great idea and useful for a variety of learners.
1	1	Distance education provides an effective method to provide access for students.
1	1	This is the "trend" for future instruction in higher education. Students are far more comfortable with computer learning than many of the older faculty, who still use lectures as their primarly teaching method. I am supportive of this method of reaching mre students into our program.

Attitude	Theme	Comment
1	1	Distance education is a strong tool for supporting candidates' learning needs as well as measuring their learning outcomes.
1	1	It has the potential to meet the changing needs of our student population and can be used to effectively offer quality instruction.
1	1	I find distance education to be an innovative way to expand student enrollment while accommodating the work requirements of traditional and nontraditional students alike.
1	1	I think it is good --- it gives more flexibility both for students and faculty
1	1	I like teaching in distance education. It provides flexibility for both students and for me.
1	1	Distance education provides a viable alternative to face-to-face instruction, especially for graduate education. In some cases, distance education is better than face-to-face instruction.
1	2	I believe that it is the wave of the future. I used to believe that online courses were watered-down F2F courses. Now, I believe that my online students learn as much as students in my F2F courses.
1	2	I support quality efforts to promote options for students to learn online and in hybrid situations.
1	3	I have been involved in distance education since the beginning - first in public schools and then at the University. I have been an advocate for distance education and have told administrators as well as instructors that students and adult learners no loger want to sit in a classroom and be lectured. I am not sure that faculty or administrators saw the value in distance education until the budget situation became crucial.
1	3	I'm a convert. I have been able to create effective online instruction for methods courses that I initially thought a bad fit for distance education. I've received extraordinary assistance and adequate compensation for my efforts.
1	3	Very excited about it. have developed hybrid and DE courses. Wish there was more support from the institution
1	3	Excellent means to educate stundets and needs to be expanded especially in my department. University dedication to the modality of teaching and faculty support is needed.
1	3	I encourage the university to prepare all stakeholders to actively support distance eduTio
1	4	Distance education is supportive for faculty and students. The plat forms have been difficult from administration via D2L and Moodle
1	4	I really enjoy distance education. D2L is a bit diffult to figure out. It is difficult and very timely to create exams It would be nice to have some type of clerical/admin support to input the exam questions and other data.
1	5	A valuable and important large niche in the offerings of the university.
1	5	Positive, believe it is essential to maintain IUP
1	5	I think it is the future of education, if we don't adapt the state system may perish as we know it
1	5	can be the lifesaver of our university

Attitude	Theme	Comment
1	6	I believe distance education is needed in today's marketplace. Teaching a distance education course is considerably more work than teachig a classroom based course.
1	7	I have been teaching via distance education since 1978. It can be done as well or better than traditional classroom education.
1	7	A necessary and growing part of higher education--distance education can be just as effective as in-class delivery.
1	7	I believe that both completely online and blended courses will be the future of education, and we must adapt our instructional methods to these technologies.
1	7	I think it is an effective means of instruction
1	7	In many ways I think the student can learn more in a distance education atmosphere vs. face to face. The distance education format can not only challenge the student to be a responsable learner while taking advantage of on line resources.
1	7	Distance education is an important and immerging means by which there can be vibrant exchange of ideas in the faculty-student learning engagement process.
1	8	I support instructional efforts for distance education, and I would like to pursue library instruction in this area
2		I see the benefits but it is not a panacea.
2		I think it is very important and will be glad when I have done it but I am apprehensive about it.
2		Love the judicious use of distance education
2		I believe it has a place in higher education and have developed DE courses. I just haven't had an opportunity to teach one 100% online yet.
2		Lukewarm positive
2		I feel that it has its place, but that it is generally held in too high esteem.
2		it is useful in some situations, but students have a hard time with distance education courses in Mathematics.
2		i think it's an interesting method of teaching, and possibly will be used a great deal in the future, but it's no panacea.
2		Something that I need to learn how to do
2		I'm still a little afraid of it but I am learning and willing to learn!
2		Has potential
2	1	i think it is a good choice for the right student.
2	1	An excelllent method for adult learners.
2	1	It is useful for some students, an in some situations.
2	1	Distance education allows our nontraditional students an incredible opportunity to continue their education. Students love it.
2	1	I teach graduate and post graduate students. Distance education provides rigorous curriculum with flexibility which meets the needs of adult learners.
2	1	It is a good option for many non-traditional students
2	1	I think distance education is very beneficial for many non-traditional students who can not come to campus.

Attitude	Theme	Comment
2	1	Excellent medium for which to reach mature, mindful students who would not be able/willing to come to campus. Distance Ed is NOT for immature students who have no idea of time management or self motivation.
2	1	I am open to it but students are not prepared in many cases for the rigor and self direction these courses take. I have been teaching online for eight years and I am constantly working on improving the way to receach students.
2	1	It could be an effective way to learn for motivated students.
2	1	I have taught online for 10 years. Most of my work is with grad students, who are self motivated learners. i worry about using it ugrads
2	1	It is useful in specific cases, but should not be used to provide general education to traditional students.
2	1	Well suited to non-traditional students
2	1	I have no trouble with the concept, but the concept only works with motivated learners
2	1	Continuing Dist.Ed works great for motivated and educated adults, but not for young people still learning how to learn. Also, education is not a commodity: rather. a process. It cannot be "delivered".
2	1	enables a broader range of students to learn
2	1	I like on-line courses in terms of its flexibility. However, some students are not suitable for this format as they are not self regulated learners. It is really depending on what type of learners you have in the class.
2	1	Is improving, but many students sign up for DE with little or no understanding of what will expected of them regarding use and access to various technologies. University signs up anyone for DE without consideration of whether the student is appropriate fr DE. Then faculty are left dealing with students who should not be enrolled in DE.
2	1	I generally think distance education is perfect for the motivated, goal oriented learner. My particular population isn't ready for it at 18 and unsure of a major.
2	1	It seems to be an effective instructional approach for highly motivated, well disciplined students; it is not clear that it is very effective with traditional students.
2	1	I think it is useful, flexible. I think it is difficult for some students.
2	1	It is fine for motivated adult learners who need alterantives to traditional face-to-face classes and times. However, for the typical, traditional student I don't think it is as successful
2	1	It is productive in the sense that it helps those who live a great distance from the university.
2	1	I think DE can be beneficial to certain students (such as nontraditional age students, students with mobility issues, students who are highly engaged and organized). For the vast majority of students, however, I believe that lost class time will also be ost time socializing them into a professional adult environment.
2	1	Okay for adults; horrible for traditional age students
2	1	Quality distance education provides a flexible avenue to meet the needs of graduate students with full-time employment.

Attitude	Theme	Comment
2	1	Distance education provides the flexibility for working students to complete their education. Developed correctly, distance education promotes deep learning.
2	1	DE has advantages, but its value depends on (1) the students effort in connecting with the online material, and (2) the instructor's ability to make online material interesting
2	1	It provides needed flexibility for students. Development is driven by concern for earnings, not quality, and assessment is inadequate.
2	1	I feel like Distance Education has its place, but there are serious and impossible to overcome limitations to its use in certain disciplines and course formats. Unfortunately, there are many that see distance education as the solution to a lot of financil and logistical problems in higher education. So there seems to be a push to fit square pegs (classes and formats that require face-to-face and field components) into round holes (fully on-line courses).
2	1	It serves some purpose for some students, but I consider it a very poor substitute for a traditional classroom education.
2	1	potentially useful at a graduate level but typically inferior to face to face instruction for undergraduates in the PASSHE system
2	1	I think it has a place in higher ed, for non-traditional students and for some courses, especially over intersessions. I do not think that it should or can replace the traditional classroom for most of our students.
2	1	Distance education seems best suited to students who are self-directed. Probably helpful for students who don't have flexible schedules. Generally think face to face is better delivery method for most students.
2	1	Useful for students who cannot travel to a class every week especially at the graduate level. No substitute for in-person courses at the undergraduate level. Better for some subjects than others.
2	1	DE has its place for certain courses and students. I find that the motivated student gets the most out of DE education.
2	1	Online courses are not ideal for teaching skills classes, especially to entering, traditional-aged students, but they can be a great resource for non-traditional students and for reaching out to those students.
2	1	Has benefits for many students but not applicable to every course or student
2	2	When done correctly, distance education can be beneficial
2	2	It allows students to persist more rapidly through their degrees, it provides additional income to faculty and the University, if we do it ourselves rather then send students elsewhere we can maintain the quality of the offerings.
2	2	I believe that distance education has a place in academia as long as quality can be assured.
2	2	A good mode of teaching but has to be more effective
2	2	I think it is beneficial, but too often professors use rote memorization assessments that do not really challenge their students to learn.
2	2	I am warming to it for some courses and understand the attractiveness to students. I feel I am facilitating not teaching but I have been amazed by the quality of guided discussions and richness of information shared at the graduate level.

Attitude	Theme	Comment
2	2	I support online instruction, and hybrid instructionsl programming. Evaluation of teaching via distance education needs to be addressed.
2	2	I feel distance education is both essential and valuable as a means of providing instruction to students. However, I believe that in some instances the quality of instruction is not up to standards. This lower standard is driven by student, faculty, and aminstration expectations of the online learning environment.
2	2	When done well it's a good thing.
2	2	It works in several areas, not all...and if classes are too large it is horrific. No clue as to our current Provost thus, unable to judge...
2	2	If implemented with integrity, distance education can be a valuable alternative to the classroom. However, without oversight, in some cases it lends itself to mediocre teaching methods and superficial learning.
2	2	I think that it is good if it is designed with effective pedagogy in mind.
2	2	It's the wave of the future. But I have major concerns because there is a lot of crazy stuff going on out there, and the rules are being made up as we go.
2	2	It is here to stay, therefore, we need to be certain that courses offered via distance education are of the highest quality and meet the changing needs of our students.
2	2	A lof of DE is undefined opportunity. While my experience is limited, I do know that like traditional education opportunities there is potential for good and bad teaching. Careful monitoring of all teaching remains.
2	2	Distance ed can have a role in the education of students if done correctly.
2	2	It is here to stay, so we should embrace it without sacrificing quality.
2	2	If quality, provides an alternative for students that meets their learning needs.
2	2	ITV delivery forces teachers back to old pedagogy (lectures). Online course are great but only with a class of self-motivated students.
2	2	Very good education platform when used appropriately and technology at each venue is synchronized. Should be used connecting different campuses, etc. and not for connecting classrooms on the same campus (therefore significantly increasing class sizes withut compensating the faculty member).
2	2	DE is very important to our university and faculty input should be valued. We should remain committed to providing QUALITY courses not just increasing numbers.
2	2	If used in a correct manner, distance education can be effective. If time/effort are not put into developing, etc. a course then it is not an effective way to deliver education.
2	2	It can be helpful to students needing credits for gen ed or their major as long as the material covered includes interaction with the professor and other students. But we can't completely replace classroom education with distance education unless we wantto devolve into something linke Phoenix U.
2	2	Distance Education, when proerly desgined and implemented can have excellent results inmost areas.
2	2	Distance education should be more than powerpoint presentations and chat rooms. I believe some disciplines benefit by distance education more than others.

Attitude	Theme	Comment
2	3	It is strongly discouraged. I teach courses online that consistently fill. These same exact courses have been denied being offered online and switched to a traditional classroom, that holds LESS STUDENTS than what I carry in an online class. It makes n sense. The little bit of money that is paid to me to teach an online class is far less than the tuition gained from the extra students, online, and with no overhead costs to heat/cool/light the classroom.
2	3	A colleague and I developed an ITV course exchange program with other PASSHE institution to help bolster our German and French programs. In spite of our valiant efforts, all German courses, and the French BA and BS in French Ed majors were eliminated at Carion University. I will be losing my job at the end of the 2014-15 academic year. I actually love teaching ITV and online courses!
2	3	Have not taught in a classroom in four years. We deliver strong distance ed, but need better support.
2	3	I believe distance education can greatly benefit the University and be a rewarding way to teach if administration provided the appropriate support.
2	3	it can be effective. technological support, pedagogical support and compensation are all sub-par at my institution.
2	3	DE is a promising delivery mode for serving the needs of many students and enhancing enrollment; however, I do not believe administration provides adequate resources for distace distance education technology
2	3	I believe in DE and have taught many courses in the past. I have not always found consistent, adequate support for faculty who teach DE, either from Administrators or many other faculty.
2	3	When done right, it can be effective and in some cases can be superior to other delivery forms. However few if any faculty have sufficient training to do it right and often have negative views of it without it. There is also NO support to make it happen
2	3	Absolutely necessary in today's world to remain competitive in recruiting students. Support must be more evident.
2	3	Distance education is a tremendous tool that has expanded the classroom beyond its walls. However, the tedium and repetition of uploading and changing files , along with developing online quizzes, makes the faculty member a data entry person versus a schlar.
2	3	Distance Education provides a great way to meet learners needs. It would be great if properly supported.
2	3	An essential delivery system of the future; teaching faculty are unprepared for and do not fully undersant nor implement new and effective ways of teaching material in this new environment.
2	3	I have taken classes via distance education and in my opinion, our administrators do little to nothing to encourage faculty to develop online courses.
2	3	I love teaching online but I believe that most professors do not have adequate training and or support and that we do not have a policy that supports excellence in online teaaching. I believe we need to articulate a moral obigation to provide excellence i teaching online courses.

Attitude	Theme	Comment
2	3	Distance education is a growing educational delivery modality. There will be growing pains. Thus far, resources to support distance education have not been exceptional, but have seemingly been adequate, but this area needs continued attention and contined resources to ensure its success and its pedagogical soundness.
2	3	I am one of the early adopters but have become disillusioned due to lack of technical support. I don't think we can just put powepoint and multiple choice tests and call it a distance ed course
2	3	I am a proponent. I create courses. However, my dean requires loads that are the same as face to face, which is ridiculous. Also, there is no evaluation form for distance education. They provide the same form as face to face which is unacceptable. Thre is no strategic plan or organization of distance education at Bloom. We are help yourself and figure it out.
2	3	The waive of the future and should receive support and funding equal to that of teaching a course.
2	3	The idea is good but I think there needs to be more support for distance eduation in any institution in order to achieve the same results with traditional classroom.
2	3	It is a necessary option that is possible to do well in many but not all courses/disciplines. Faculty are well intentioned but there is a huge need to increase IT support so that faculty can be CONTENT experts and have others with the expertise to load cntent on the LMS. Also, better support in developing good student evaluation metrics in the online learning environment.
2	4	I am a proponent of Distance Ed. I think, with adequate technology, it is an effective means of offering cousres.
2	4	It's ok; but we continue to struggle with technology compatibility between the two schools.
2	4	I think distance education is a great tool that is being used profoundly inconsistently across the campus. There are so many powerful options to use in distance learning which professors are unaware of or are not trained on. We know about these "special things when we contact the distance learning IT assistants on a one-to-one basis.
2	4	It has great potential, however the ifrastructure of the state system is still catching up so the potential is unrealized as of yet.
2	4	I feel that it is a very convenient alternative to the traditional classroom learning, but only if all technology is working properly.
2	4	An option for teaching only if the technology works and is supported.
2	5	It's an important part of our university's present and future, but I have no sense that it has been or is being deliberately and carefully planned by administration or faculty. All efforts seem piecemeal, of the moment ... and that' s not good.
2	5	I think distance education is critical to the future of the PASSHE System and believe the administration does not understand nor have any vision of the future for the PASSHE System as well as distance education.
2	5	It is encouraged as a means to cut costs at the expsence of learning (even though I believe it can be done well).

Attitude	Theme	Comment
2	5	Distance education is a set of tools that has potential for extending higher educational opportunities and supplementing classroom instruction. It is sometimes promoted for the wrong reasons (a search for "efficiency" or a value placed on technology for is own sake).
2	5	High Quality online/blended degree programs is critical for the future of IUP. We have a long way to go in preparing/marketing/implementing online degree programs.
2	5	Useful alternative for 5-10% of the population; otherwise a money grab by colleges and universities.
2	5	It will growin availability and sophistication...the university must move aggressively to bolster its DE efforts or run the risk of losing enrollment to institutions who have invested in DE infrastructure and expertise.
2	5	I enjoy designing asynchrounous online courses. We should be compensated for developing distance education. Because we are not being compensated past fall 2014, I will not develope anymore courses in DE.
2	5	I completed my entire doctoral program online and support distance education. I do not feel our administration effectively communicates any educational principles to faculty, distance or otherwise.
2	5	I am concerned that in chasing distance education dollars, PASSHE institutions will lose their core characteristic. This does not imply that that I think distance education is always bad, but our institutions seemingly have no comparative advantage in thi field.
2	5	It's a necessary and growing component of higher ed. However, I think administrative entities view it as a revenue-enhancing delivery system primarily, and no longer care about effective education in any form.
2	6	I enjoy teaching online, however to be effective it takes a large committment
2	6	I feel it is generally a good system, but the compensation is inadequate considering the many extra hours that go into teaching a distance course.
2	6	I feel distance education is a key component of university training and should be encouraged and developed. I believe it is labor intensive for faculty, but is generally very high in service to students.
2	6	I would teach courses online again, but it is twice as much work
2	6	It's okay. Labor intensive, but also with interesting benefits and possibilities.
2	6	It has the potential to be effective, not sure how to do that without investing inifinite person-hours in design and student interaction/online assistance. Seems like you could devote 24/7 to answering questions/proctoring discussions
2	6	I think distance education provides students opportunities to access educational programs. In this way, it can make education more accessible to a larger group of people, but this needs to be balanced with the quality of work lives of faculty members.
2	6	I would not mind developing an online course, but do not have the time to do so.
2	6	Administration sees it principally as a cost-saving measure and will not generally acknowledge limitations or development costs or student disinterest. I think it can be useful in limited roles but can be very time-and-personnel intensive when done fruitflly.

Attitude	Theme	Comment
2	6	Can be effective especially at graduate level, but the time consuming nature of offering DE courses is not recognized by University
2	6	I think that, if done effectively, distance education has a lot of promise. However, it is extremely difficulty and time-consuming to do effectively.
2	6	It saved our program by broadening our market, but we have paid a stiff price in terms of the time and effort required. The administration is clueless as to what DE involves and does not even understand that faculty teaching it may need superior hardware nd software.
2	7	It has potential but does not meet the in-person quality of my course.
2	7	I think there is enormous potential in distance learning when used appropriately. There should be a mix of online and face-to-face experiences designed to meet a range of needs (of both faculty and students)
2	7	Generally very positive. Although the attrition rate is often high, I feel that some students have an even better experience in distance education than they would in the same class delivered face-to-face.
2	7	I believe it can supplement but not replace classroom instruction.
2	7	I believe that it has a place in higher education. However, it is not equivalent or isomorphic to traditional approaches.
2	7	It has it's place as an a course delivery option.
2	7	hybrid courserooms are more effective than full online
2	7	I think distance education is a valuable method but that it should only be used when necessary and is not a substitute for the traditional classroom experience.
2	7	it has its place... for content delivery...i prefer a hybrid model since i teach a professional counseling curriculum
2	7	If done well it can be a good medium but I prefer at least some residency with it.
2	7	I have taught DE for several years and plan to continue to do so. Nonetheless I believe it is generally not asgood a means of presenting information as is face to face instrution.
2	7	I love teaching it! I feel it can be a great way to reach out to non-traditional students but it should never be used as the core of a student's college education. Being present and sharing ideas (in person) is part of a strong liberal arts education.
2	7	distance education is an essential part of the social fabric and must be offered in today's economy and society, however; hybrid learning is a better course of action.
2	7	concerned about overuse; okay in some circumstances
2	7	I support its use. It's simply a different venue, which has some similar and some different strengths and limitations compared with podium-based education. I particularly prefer to offer podium-based courses that incorporate course websites, resources nd activities - using the strengths of each venue.
2	7	Distance education is necessary in today's world, but is usually not the most effective method for delivering instruction.
2	7	It has its place, but is not comparable to face to face instruction for courses of teaching methods.

Attitude	Theme	Comment
2	7	Good supplement to traditional education. Should NOT replace traditional education.
2	7	It has a purpose, my preference though is to teach in the classroom
2	7	I support distance education for specific educational purposes, but I more strongly support face-to-face learning environments.
2	7	I believe it can be a useful tool but should not replace the classroom experience. If used at all, I believe it should be a "hybrid" experience.
2	7	I would consider using distance education in certain circumstances. I view it as a tool that neither universally detracts from nor ensures more effective teaching and learning practices.
2	7	I believe it has a place in education today but should NEVER completely replace face-to-face teaching and learning.
2	7	I think it is appropriate for limited, well defined purposes.
2	7	Distance education is a necessity for universities to compete in the current educational climate, however, I prefer a blended approach to toal distance education.
2	7	I support a blended (hybrid) education model for undergraduate students
2	7	Although this form of educational delivery may work for some classes and some students, I prefer face-to-face teaching. Students tend not to like online classes, but take them for convenience or because they perceive the class to be easier online.
2	7	It has its place, but it's should not be pushed simply as an economic decision... some education requires face-to-face versus threaded discussion, which can lead to students learning opinion versus truth. Also, a difference exists between education and imply learning facts. Also, real-time distance ed (ex. using ITV technology) is very different and requires different treatment. If the equipment in the classroom was specified and setup correctly, it's as good as being there. I do not believe a one-polcy or one-process fits all. The space to comment is far too short… FYI: I may have goofed on your survey since you "flipped" my brain going from adequate to inadequate. Consistency breeds reliability, so why do that? It doesn't really make for beter responses; it only creates opportunity for increased error (poor reliability).
2	7	It works adequately most times for lecture classes but diminishes the personal interaction between the students and instructor. It is very frustrating when the technology fails for both the students in the actual classroom and those in the distance site.
2	7	I believe it is a potentially useful adjunct to face-to-face instruction but it should never be relied upon as a replacement for that instruction. I am concerned that our response to distance education is characterized by a "ready, fire, aim" mentality..we do it because we think we must (for financial reasons) but we have not carefully considered the implications for increased use on the academic mission or the culture of this campus.
2	7	It is not the same as the classroom experience, but it does allow for creative and rigorous instrtuction if faculty learn how to use the various available methods.
2	8	It is not the answer to effective pedagogical instructional practices for higher education but can be a great supplement to traditional courses as well as can be taught as a part of the entire curriculum in academic programs.

Attitude	Theme	Comment
2	8	I think distance education can be effective for some aspects of my degree, but I have reservations about the effectiveness to teach hands-on, interactive methodologies -- especially those used by education majors.
2	8	I think there is value in it but for the right courses. Most of my course work revolves around our television studio and editing labs which does not seem to me to be appropriate for distance education. On the other hand, the mass lecture course I teach wold be well suited to distance education.
2	8	Useful/appropriate for certain populations and certain disciplines/programs, but not all.
2	8	So-so, I can see its value for theory courses but not clinically based ons (I am in psychology)
2	8	Distance education is beneficial for the right type of classes, but it is very difficult to inspire students through distance education.
2	8	distance education can benefit students who need to take courses during the summer to complete their degrees in a more timely way. It is not suitable for all courses.
2	8	From having taught 2 online courses I feel that online teaching is best suited to particular kinds of courses and not to all courses
2	8	Some classes work well in a distance ed setting while others do not. It is essential that we put some of our course offerings online for the well being of the institution.
2	8	I believe there is a place for distance education in the early level general education courses, I definately see hybrid in upper leverl professional courses.
2	8	I feel it is appropriate for some departments adn subjects, but not all.
2	8	I am open to distance learning where appropriate, but it has very limited application for the classes that I teach.
2	8	I am open to it in some situations. Not all courses can be taught distance ed.
2	8	Students need to learn how to do academic research online.
2	8	I think it is fine for some areas of some disciplines but not appropriate for all subjects.
2	8	For some classes it is appropriate, but not all types of classes. It is very useful for students in isolated locations or needs flexible class times.
2	8	I think it can be very effective, but not for all courses/fields. Additionally, it takes extensive re-training and pedagogical change to do well. Why do it any other way than well?
2	8	I believe that although distance education is necessary and useful in this day and time it cannot replace a face to face teaching / learning environment in all academic courses or programs of study
2	8	I think it might be ok for some subjects. In general, I think in-person interaction is important.
2	8	suitable for some / selected subject matter areas; sometimes best viable option, though face to face is most effective intellectually and with respect to being at a "university"

Attitude	Theme	Comment
2	9	Online courses make it convenient for students to attend courses the would not otherwise be able to attend. PASSHE should adopt a systemwide practice of proctoring online tests. WVU has done this.
2	9	Most in my department have a negative veiw of distance education. I think it has positive elements - the biggest concern is authnentication of student work.
2	9	Properly used, with bio-metric verification of students, DE offers an opportunity greatly increased levels of student learning.
2	9	I think that it is an important part of an educational institution, but more effort needs to be placed on quality and academic integratity.
3		It is inevitable that this is the direction of education's future.
3		here to stay...
3		It has been a powerful tool to increase enrollment in summer and winter sessions.
3		I think it is a necessity today.
3		I believe it will be increasingly adopted into the main stream of higher education.
3		Distance education is increasing in my university.
3		Distance Education is the platform that will be used more frequently in the next ten years. .
3		I am unable to judge an have never taught a distance education class
3		Ambivalence. I do not plan to teach distance education courses and know very little about them.
3	1	Students are voting with their feet that they prefer on-line classes in summer.
3	1	I think it offers another dimension for student learning. More students require options because of the multiple demands on their time.
3	1	Some kinds of individuals learn effectively from distance educaton . . . but this is not the best option for many.
3	1	Student advisees are very interested in seeking online course work. I think more would be welcomed by them.
3	1	workd only in rare instances for exceptional faculty and on some special students
3	1	For the self-motivated and interested interested in learning, distance education is a viable option. For those who are unmotivated or without direction, it is a waste of time.
3	1	There are students who find DE helpful and useful, and there are faculty who deliver online learning well. Those students who don't want to complete courses through distance learning shoulldn't have to, and likewise faculty who are uncomfortable teaching ia DE shouldn't be required to do so. It has a place in higher education but it isn't for everyone.
3	1	It can be effective and provide access to a larger pool of students with adequate preparation and orientation.
3	1	OK (perhaps) on a graduate level, OK (perhaps) in a mixed class where students have live, face-to-face access to the instructor, but otherwise a glorified correspondence course.

Attitude	Theme	Comment
3	2	I am ambivalent about it. Done well, it has the potential to increase the number of students with access to various courses. Done poorly, it is a disaster - and we aren't being prepared to do it well as faculty.
3	2	The impetus for distance education is an effort to increase revenue. However, not much emphasis is placed on the pedagogy.
3	2	It is here to daty so we should try to improve the instruction and student ratio.
3	2	It's not going away so we need to accept it and learn how to deliver the best course possible through distance education.
3	2	I realize that it is a fct of education today but i still think it is far from a mature form of instruction and administrators and policy makers have unrealiatic expectations of it or just plain do not care if it delivers good quality instruction.
3	2	distance ed can be as good as or worse than face to face education; success is faculty-dependent
3	2	When faculty are creative and careful it can be successful and rewarding for students who have time constraints on attending regular classes. Sometimes ineffective instruction lures teachers and students who are seeking an easy class.
3	2	It is inevitable, so we have to learn to make it work.
3	2	The quality of our offerings is uneven.
3	2	There will be more of it in future. It is important to maintain integrity of the delivery method.
3	2	I have had students tell me that some faculty just have them complete quizzes and tests from textbook test bank. In some of these courses, the content lends itself to allowing students to be reflective and creative. Facutly need to be active in their teching and not be paid to for a "programmed text." It is a shame that students aren't asked to use the information rather than jjust learn "facts."
3	2	When done well it is an excellent tool, but when done poorly it can ruin a schools reputation.
3	2	I have mixed feelings. On one hand, it gives students opportunities. However academic integrity is a big issue. Also, right now there is no requirement of faculty to have student evaluations completed. Unfortunately I feel there are several instructors wh do less work with distance education classes than face-to-face. This is to the detriment of the student and not fair to faculty who have face-to-face classes.
3	2	It's like a correspondence course in that it can be good or horrible, depending on what the instructor puts into it.
3	2	It is difficult to assess the quality of knowledge transfer from educators to the students. University administration use distance education to increase students cheaply and use distance education to screen whose faculty receive more/less compensation.
3	2	The quality of distance education requires disciplined instructors who are not lazy because it involve a lot of work to produce quality education.
3	2	To be done well, requires focused, intensive start up costs. As increasing numbers of faculty begin to teach online, they are not adequately preparing their courses; there is no accountability for outcomes.

Attitude	Theme	Comment
3	3	I teach in a program that is totally online and it is basically successful. More technology support is greatly needed.
3	3	Due to union animosity distance education is not viewed favorably.
3	3	The faculty need more support and a tech team to create modules for faculty to use in online courses.
3	3	We do not have the resources to support distance education.
3	3	There is little to no support by my univeristy in the development and delivery of my online courses.
3	3	There is very little suport for DE. When designing a DE course, faculty are mostly on their own. IUP scheduling does not provide time for videoconferencing during DE class sessions. It's a struggle to educate students before a DE class begins. The facultyhave to do it all: train students, design the course, deal with problems. IT support is available but not on a scale to even begin solving these problems.
3	3	I have not received training in how to teach on-line. I think that this is necessary before teaching on-line.
3	3	There is not enough support in design and developement of these courses.
3	3	Faculty have not been adequately trained to design and to implement effective distance education courses.
3	4	My institution needs to settle on an LMS and then stick with it. WebCT then Moodle and now D2L in a very short time. I've heard that the D2L contract will be up soon and I won't be suprised to hear we switch again.
3	4	It is probably nothing to do with provost but we have gone through WebCT, Two different Moodle versions and D2L and I hope that one system will last longer than a few years
3	4	Eliminating Moodle will be extremely detrimental to distance education at IUP. Faculty are not aware of nor participate in developin distance education plans.
3	5	The provost is interested in providing D.E. opportunities with as little money and effort as possible.
3	5	I do not think there has been any plan or serious thought given to the role of distance education and how it fits with the on-campus delivery of courses. It is liked i think becuase of the freeing of classroom space.
3	5	Future of Education. What many students and non-traditional students are looking for. Only way to keep MS programs
3	5	It is a necessity for IUP to be a leader in a number of fields in the future. I don't know the role(s) the provost plays in DE versus Deans, Dept. Chairs, etc. My involvement in DE is really with the Dept Chair.
3	5	It is the trend of the future. Follow it or be left behind.
3	5	It is viewed by administration as a cash cow. There is no clear vision for the role of DE or its relationship to traditional offerings.
3	5	it has been developed on this campus as a means to gather more FTE for funding purposes and without much planning. It was the "how can we beat Cal U or any other insituttions efforts.
3	5	I fee enrollment that faculty are presured to teach online in order to increase courses enrolment and to save faculty positions

Attitude	Theme	Comment
3	5	We need to have a well-thought strategy to embrace this new mode which is here to stay. No one talks about efforts to enahnce our market internationally using distance education.
3	5	The market demand it, we have to offer it
3	5	It needs to be funded better. There needs to be better compensation for developing and maintaining courses. Students need better guidance. We need to not use DE as a way of turning education into a business.
3	5	I believe there should be more communication with the faculty to ensure the courses selected to be offered via distance education are appropriate and able to be properly developed to ensure the students receive the knowledge and skills required. I also fel there should be more consideration/compensation to the time and commitment a faculty member must invest to properly offer distance education.
3	5	Necessary; produces needed revenue; I miss the face-to-face teaching
3	6	It takes a lot of work to develop an effective distance education course. There is plenty of room for improvement.
3	6	It is much more difficult than teaching in a live classroom - students expect 24/7 answers from faculty - expecting live office hours for distance ed faculty is nuts! forcing us to put more and more students in the class each semester only decreases qualiy of instruction in the major. each faculty member teaching a distance ed course should have at least 1 hour per course per week with instructional design expert. all online faculty should have laptops supplied by the university.
3	6	I have mixed feelings. It is convenient, but also more time intensive to deliver a DE course. Tech support on campus is highly responsive, which makes the teaching aspect easier and more managable.
3	7	will never replace face to face insruction
3	7	I understand that it appears to be the direction learning is moving; however, I prefer traditional on campus learning.
3	7	For quantatative disciplines a 3-week course is not conducive to learning.
3	7	I think distance education should be more than a text-based endeavor. We should be using Blackboard Collaborate and online Presentation Software.
3	7	It is not as effective as classroom/hands on training, but I realize that it is needed by many students in order for them to manage work and school
3	7	Apples and oranges. We teach in the classroom. We teach on-line. There are pros and cons for both and a combination of the two might be the best option.
3	7	I like the personal interaction with students
3	7	Subject to many of the same strengths and weaknesses of face-to-face classes. However, only "strong" students benefit.
3	7	I haven't used it. I think face to face instruction is better, but distance education is helpful for students who can't take a course in person.
3	7	ambivalent, good for some students, not for others; need to guide students to whichever means of education is best for them
3	8	I have mixed feelings toward instance education. For some courses, I do not think DE will work; for other courses, DE makes courses more accessible.

Attitude	Theme	Comment
3	8	Will not work for a performance class like band, choir, orchestra. Will also not work well for individual lessons on instruments.
3	8	In my area of teaching, distance education is very difficult to be effective
3	8	Not enough information in science available to judge
3	8	Not appropriate for my discipline, perhaps a blended learning might be more appropriate
3	8	Ambivalent. At this point we don't see any real use or application for our program
3	8	appropriate for some disciplines, not all
3	8	I find it inadequate for the teaching of languages.
3	8	It would not work to teach lower level Spanish classes
3	8	Hesitant; skeptical, probably inevitable to some degree. Not suitable for clinical courses in my discipline
3	8	I, personally, have a hard time learning via distance education. I want to attempt teaching online in summer 2014, but only certain courses in our major. I don't think EVERY course can be taught effectively online.
3	8	I'm not too sure what place distance education has in my discipline and I have certain reservations in its ability to service the 'hands on' learning that I promote.
3	8	We are exploring possiblites. No appropriate for all preserive and inservice learning.
3	8	In my discipline of chemistry, I find it very hard to believe that distance education is equivalent to in-person education, especially as it relates to laboratory courses. I do NOT think that computer simulations are an acceptable replacement for "real" lbs!
3	8	Does not work for teaching trumpet or directing an ensemble
3	8	For my discipline, I think most courses are better taught in a face to face format. I have not been happy with how my institution had changed the distance ed platforms. I have used Moodle to supplement instruction and and I liked it. I was unhappy when tey suddenly decided to take this away but later allowed continued access.
3	9	Not enough support given to proctoring exams.
3	9	Lacks the ability to truly know you are getting work from the student who is registered for the class.
4		it is a necessary evil in the arts.
4		I feel that it is a necessary evil.
4		Skeptical
4		Not a fan. Student feedback has been that they don't learn much or it is too easy. Really good students don't want to take Major classes online.
4		I wouldn't want to teach a distance ed course, but I have no problem with those who do.
4		Although I haven't done a distance ed course, I have used (and still use) a lot of distance ed technologies. Yet, I'm still uncomfortable doing an entire course with those technologies.

Attitude	Theme	Comment
4		I am grave reservations butr recognize that there is no holding it back.
4		The jury is still out on its effectiveness with undergraduate education.
4	1	A poor substitue for face-to-face in-class learning. Students taking the classes must be highly motivated, have personal integrity, and be highly organized to keep up with the weekly assingments.
4	1	I am not in favor of distance learning for traditional aged students enrolled in a University full time. i recognize the value of distance education for nontraditional students who have personal circumstances that make attending on site courses difficult I don't think the average student learns as much in a distance class as in a face-to-face class.
4	1	Electronic "interactions" do not allow students and faculty to develop personalized professional relationships to the same degree as face-to-face (hence why we have such things as emoticons and the like). I am concerned that too much reliance on distanceed will limit faculty ability to recognize those students who are in trouble, not merely numerically in a grade book, but with life skills or life events.
4	1	It's not for everyone or for every student. I have some concerns. It is another way for the university to make money.
4	1	It is not a good alternative for most students. Nothing can replace actual interactions between people.
4	2	I believe it is not adequately assessed in terms of meeting course goals. Pedagocially speaking, I believe many professors do not create as rigorous a class as they would have face-to-face.
4	2	Ambivalent. It may be convenient (for all involved); but I doubt it provides equal value in terms of learning.
4	2	It seems needed in this society but results are questionable.
4	2	It is blindly being integrated into the university with no pedagogical concern. No student or faculty feedback or review exists.
4	2	Generally, distance education is not an optimal form of instruction. However, market forces are pushing us to include online offerings, and we have been adequate in our response- not great, but adequate.
4	2	I am not certain of the rigor associated with on line education.
4	2	Distance courses and the faculty who teaches them should be evaluated with the same standard as face-to-face courses. The quality of distance education , in general, is much lower.
4	2	I think that distance education is generally a poor substitute for traditional classroom instruction. However, I realize that it is a direction that my university needs to pursue given its need for revenue streams. I also think that quality control is a cncern with distance education. Some faculty members do an excellent job while others do a very poor job with their distance education courses.
4	2	a necessary evil that can be effective if done well, but it's a lot of work to make a good course.
4	2	I do not believe that it will ever be of the same quaility as face to face instruction. If done well distance education is time consuming for the faculty and rewarding for the student. Many faculty do not put the necessary time or effort into it.

Attitude	Theme	Comment
4	3	I tried it. I was hugely disappointed in tech support - the "supporters" didn't know enough about DE to either train me, keep up with problems I was having, or solve a couple of huge issues I had (such as the course "closing" early, locking out all the tudents who were trying to turn in their final papers -- that snafu, on the last day of class, took more than three weeks to sort out, and did not sort out to my satisfaction). I do not plan to teach online again anytime soon.
4	3	I would be more enthusiastic if IUP developed a program to help students learn how to be better distance learners. I would be more enthusiastic if Distance Education was more rigorous and if there was greater accountability for ensuring that courses are igorous.
4	3	Necessary evil. Good for students not in area BUT SHOULD NOT BE USED FOR STUDENTS LIVING ON OR NEAR THE CAMPUS. NO RELEASE TIME to develop/teach but expects 'experience to be the same' which is hard to interact via e-mail with 25 students at once. '
4	5	It's misguided, the fault, perhaps, of the useless provost we had. We are so far behind and our expectations do match our resources or the resources at students' disposal.
4	5	I am extremely wary about the prospect, especially the winter session, for which I feel that money-making and expediency is being ranked higher than learning.
4	5	I feel it is a necessary evil for academics in a profession quickly being highjacked by myopic business models, under-worked and non-scientific scholars of education, and cash-centered administrative philosophies.
4	6	I nolonger teach because it takes away from my professional development also the pay is too little
4	6	It is cumbersome and a great deal more work than traditional classroom teaching. It is an format that is appropriate for adult learners who are motivated.
4	6	Not as good in providing studnets with the skills or knowledge they need to be successful. It is time consuming and still at the mercy of technology that may fail. Students are often frustrated by it .
4	7	I think that it is less effective than regular teaching, but it seems to be where the focus is. Many students want it and administration seems to see it as cost effective.
4	7	necessary evil. We have to offer it, but I don't think it is the same quality as F-to-F.
4	7	It is being used too often. It is a nice supplement to the face-to-face classroom, but should not be used to manage insufficient class availability during the regular semester or to replace face-to-face options.
4	7	Students do not benefit from it to the degree they can benefit from the traditional classroom experience. It should NOT be made more.
4	7	100% per the literature/outcomes is obviously ineffective. Hybrid courses will likely work within alternative scenarios and spacial concerns and budgets grow tighter.
4	7	Not the best format - more convenience best format is hybrid
4	7	I'm sure that distance education has some advantages, but overall I think it provides students with a woefully inferior substitute for in-class learning. Overall, I despise distance education.

Attitude	Theme	Comment
4	7	I think it has its merits, but something about the whole college experience is lost when the student has too many/all on-line courses. Discourse with other students and feedback from the prof cannot be the same. Some students may do well at essentially teching themselves, but others learn better with a live person with whome they can communicate directly. I fear the latter may soon be lost. I don't believe brick and mortar institutions of learning should be lost but fear they may.
4	7	Distance learning is not a substitute for classroom learning.
4	7	Its use is not pedagogically sound. Interaction is a must when it comes to teaching and learning. Furthermore, I should not have to be technically expert at using convoluted learning management systems in order to deliver such a course.
4	7	I thrive on face-to-face interaction with my students. I have no interest at all in teaching online or in any other distance education venue.
4	7	I think it is generally worthless. Hybrid classes can work, especially at the master's level, but I think distance-only programs have little educational value at the undergraduate level.
4	7	Not the same as face-to-face (in fact, inferior), but technology is allowing close and valid substitutes to this and many other experiences.
4	7	I acknowledge it is a necessary evil. I maintain that the best learning happens in a seminar classroom. There's plenty of cheating going on among distance learners.
4	8	While it has its place for certain classes, I feel it is being forced on us at the expense of students here in person.
4	8	I am not in favor of distance education but I teach one class during winter and summer session to ease the demand for a highly needed course.
4	8	For my field, is not the most appropriate format for education - however, it is the "trend" in today's educational environment.
4	8	It is not applicable to all fields. The emphasis is taking away resources from REAL education.
4	8	In some fields it is more useful than others. Overall, I think it has more "hype" than practical utility.
4	8	Upper division courses in my discipline should not be taught by distance ed
4	8	It is directly in opposition to my academic discipline which focuses on actual community and being in the physical presence of others
4	8	Not acceptable to most medical professional schools, so it should not be a driving force in the sciences, except General Ed non major courses
4	8	I think it works well for some content area - math, science perhpas. I do not think it works in the professions (education, counseling, social work, psychology) because competency (which we are required to measure) is too hard to evaluate. In the professins, we are gatekeepers for the safety of the public and we need to have and use every oppportunity to get to know students on an interpersonal level. Distance ed does not afford the same access to knowing a student as does in-person assessment of the profssional behaviors required of that student.
4	8	It is not an effective way to teach all subject matters.
4	9	Initially I thought distance education was a positive way to teach students. Over the years I have become disillusioned about the possibilities of distance education, particulary as security/identity verification is concerned.

Attitude	Theme	Comment
5		Do not like it.
5		I hate it. It's inhuman. People have bodies as well as minds and we ought to meet in person for full and wholistic education.
5		hate it
5		I have tried it and don't like it. The university wants it, but I don't think it is a good thing for the university.
5		I believe distance education is contrary to the intent, pedagogy, and comradery indiciative of higher educagtion.
5		It is not a very successful mode of education. Students feel online courses should be less demanding or less work but they should get the credits for just enrolling.
5		Don't do it. Don't plan to do it.
5		Its an inadequite way to educate students, I would be very leary of hiring any graduate with to many distance eduation courses.
5		I hate it. I do not feel it is an effective way of teaching. It enables poor studying habits and allows students to continue to direct their attention in too many different areas (creates poor attention spans).
5		A poor replacement for the real thing.
5		It does not foster creative thinking
5		Unfortunately, it is the wave of the future, less personal interaction with our students and therefore less education on their part.
5		I do not think it is the best way to learn.
5		Not interested
5		wary.
5		I am not a proponent of distance education.
5		I think it is a fad that will diminish over time.
5		It is a poor substitute for traditional face-to-face instruction that shortchanges students.
5		Not a fan. Universities are a place where, ideally, mentoring relationships can be established easily between faculty and students. Distance diminishes the chance for this type of bind to form. Also, if what we do can be reduced to presentations on lin, my job is quite different from the one I thought I was supposed to be doing.
5		theubniversity might as well be a telemarketer
5		I generally oppose distance education.
5		What is the point of on campus education in we increase use of distance education?
5		I'm opposed to distance education.
5		Distance education is an oxymoron
5		I think that it is a waste of time.
5		It is an adulteration of higher education.
5		It's bogus.

Attitude	Theme	Comment
5		It is a terrible idea for higher education. It will never replace real interaction between faculty and students in a classroom. It's a sham.
5	2	it is not as demanding and leaves a lot to desire regarding personal relations.
5	2	I'm very negative towards distance learning. we have almost all students who live within commuting distance of our institution and the loss of face-to-face contact is a major problem. The interaction I've seen with distance learning is primitive. I see itmostly as a the universities wanting to save money and raid other institutions students.
5	2	The quality of education has been damaged a lot.
5	2	I really dislike it. It is the worst form of teaching (unless it is contemporaneous). Too many faculty simply do narrated powerpoint slides. Our dept uses 'Media Site' to tape lectures. This is OK, but many students have troubles watching them, or othrwise do not watch them.
5	5	The latest money making venture in education and everyone is trying to jump on that band-wagon. For a univ who says 1-on-1 interaction with students is important, distance ed is contrary to that belief!
5	7	too many courses online already. many of them are not fit for online.
5	7	I feel it is inferior to live in-class meetings and waters down the education experience.
5	7	It drastically reduces the quality of education that we provide students and is not equivalent to traditional courses. Some aspects (discussions in particular) of the experience simply cannot be reproduced adequately without a classroom experience.
5	7	I'm not a fan. I think we need more face to face contact, not less
5	8	Students are not learning. Mathematics and other mat sciences should never be put on distance learning.
5	8	don't like it, can't see it use in classes that I teach, lectures with difficult material which I need to be able to see student reactions to questions. Also, tough to perform labs.

Appendix I Coding Scheme for Leaders

Code	Title
1	Chancellor
2	President
3	Provost
4	Vice President
5	Associate Provost
6	Dean
7	Chief Information Officer
8	Director Teaching and Learning
9	Director Distance Education/Instructional Technology
10	Director Continuing Education/Extended Programs
11	Instructional Designer
12	Tech Support Staff
13	Committee
14	Faculty
15	Unknown
16	No One
17	Department Chair
18	Other

Appendix J Frequencies for Influential Individuals

Frequency of Titles of Individuals Perceived as Leaders

Title	Frequency	Percent
Unknown	118	27.8%
Director Distance Education/Instructional Technology	36	8.5%
Dean	34	8.0%
Provost	32	7.5%
Instructional Design Staff	31	7.3%
Faculty	29	6.8%
Other	27	6.4%
No One	24	5.7%
Technical Support Staff	17	4.0%
President	16	3.8%
Director of Teaching and Learning	14	3.3%
Director of Continuing Education/Extended Programs	13	3.1%
Department Chair	10	2.4%
Chief Information Officer	9	2.1%
Vice President	6	1.4%
Associate Provost	5	1.2%
University Committee	2	0.5%
Chancellor	1	0.2%
Total	424	100.0%

Leader Frequencies by High-Implementation Institutions

Title	Frequency	Percent
Director	41	26.6%
Unknown	33	21.4%
Other	17	11.0%
Provost	14	9.1%
Dean	10	6.5%
Instructional Designer/Technology Staff	10	6.5%
President	7	4.5%
No One	7	4.5%
Faculty	5	3.2%
Department Chair	4	2.6%
Vice President	3	1.9%
Chief Information Officer	3	1.9%
Total	154	100.0%

Leader Frequencies by Moderate-Implementation Institutions

Title	Frequency	Percent
Unknown	68	31.3%
Instructional Designer/Technology Staff	35	16.1%
Dean	22	10.1%
Faculty	21	9.7%
No One	17	7.8%
Director	13	6.0%
Other	12	5.5%
Provost	10	4.6%
Chief Information Officer	6	2.8%
Department Chair	6	2.8%
Associate Provost	4	1.8%
President	3	1.4%
Total	217	100.0%

Leader Frequencies by Low-Implementation Institutions

Title	Frequency	Percent
Unknown	17	32.0%
Director	9	17.0%
Provost	8	15.1%
President	6	11.3%
Vice President	3	5..7%
Instructional Design/ Technology Staff	3	5.7%
Faculty	3	5.7%
Dean	2	3.8%
Associate Provost	1	1.9%
Other	1	1.9%
Total	53	100.0%