A DELPHI STUDY ASSESSING

EFFECTIVE PEER FACULTY E-MENTORING

TO SUPPORT

SCALING DISTANCE EDUCATION PROGRAMS

A Dissertation

by

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ABSTRACT

This research addressed a gap in the literature regarding the use of e-mentoring as a successful infrastructure mechanism to support educators in delivery of higher education and metrics for its use in scaling online education programs.

The methodology applied to this research was a Delphi Study. The Delphi Technique is a qualitative methodology to build a consensus opinion from a panel of experts. This Delphi was based on a series of rounds in which a panel of experts responded to survey questions, each survey item presented as an essentiality statement ranked by a Likert-type scale index from Very Important down to Unimportant. Descriptive statistics were calculated for each survey statement to determine consensus.

This study addressed five research questions in the areas of support for distance education faculty: what attributes of an e-mentoring program for faculty engaged in teaching distance education classes lead to perceived effectiveness by coaches and practitioners (terms introduced to describe the mentoring relationship between peers in a community of practice), what formal and informal activities or processes provide for preparation for teaching online, collegiality, and professional development (previously published operationalized factors) (Velez, 2010), and what metrics can be used to determine that e-mentoring has led to increased spread, depth, sustainability, and sense of ownership in distance education, previously published factors for scaling (Coburn, 2003).

Based on the Delphi results, the highest consensus means concerned the importance of faculty and administrative support of distance education. For example, the study found high consensus that e-mentoring should be encouraged with release time, coaching should be considered in tenure and promotion decisions, and provision for communication allowances and technical support should be provided for e-mentoring sessions. Training topics of greatest interest included accessibility training, content delivery and teaching modalities, and copyright law and intellectual property expectations. Important metrics included the number of "formerly coached" practitioners acting as e-mentoring coaches in the future, the number of semester-hours taught, the number of faculty initiating new practices, and faculty acceptance of delivering education online.

This study is significant because it researched the use of e-mentoring as a support for faculty in scaling online learning programs in higher education and provided expert evaluation of processes and procedures recommended by faculty to support their effort. It also evaluated metrics to assess the scaling of distance education programs.

DEDICATION

To my husband, Robert, for his unfailing belief in my potential and his willingness to see me reach it; and, to my children, Katherine, Robert, and Rebecca, who have brought so much joy to my life, may they be successful in the pursuit of their dreams.

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NOMENCLATURE

Coach	This term is used in conjunction with the term "practitioner" to describe a new type of relationship in a peer faculty environment. Historically, the terms of mentor/mentee or mentor/protégée have held certain connotations that are not appropriate for a peer-mentoring program. Therefore, this dissertation will refer to the coach/practitioner relationship as one in which one peer in the practice of distance education coaches another in a particular skill to enhance the ease of practice for a fellow practitioner.
Communities of Practice	For the purposes of this dissertation, the use of the term communities of practice (CoP) is consistent with that presented by Wenger when he published his conceptual framework for lifelong learning. Wenger's definition of a CoP was based on a three dimensional community comprised of engagement, joint enterprise, and shared repertoire (Wenger, 1998, p. 73). In his most succinct description, Wenger defined CoPs as, "groups of people who share a concern or passion for something they do and learn how to do it better as they interact" (2006, p. 1).
Computer Mediated Communication	The use of computer-mediated technologies such as email, listserv lists, chat, webcam, and conferencing software, among others, to support communication, abbreviated CMC (Bierema & Merriam, 2002).
Delphi Technique	The Delphi Technique is a qualitative methodology to build a consensus opinion from a panel of experts based on a series of rounds in which a panel of experts respond to questionnaires and are provided the results for their review. Their responses are then analyzed and grouped by the researcher. The summary of the results of each round is returned to the panel for their feedback, at which time they are at liberty to change their original responses. This is repeated for three, sometimes four, rounds until a consensus on key topics is achieved. Skulmoski, Hartman and Krahn (2007) described the method as "an iterative process to collect and distill the anonymous judgments of experts using a series of questionnaires interspersed with feedback" (p. 2). An important strength of the Delphi is "its capacity to capture those areas of collective knowledge that are held within professions but not often verbalized" (Stitt-Gohdes & Crew, 2004, p. 58).

E-mentoring	This term refers to a nontraditional form of mentoring, specifically a mentoring relationship that is supported by the use of computer-mediated communication (CMC) (Bierema & Merriam, 2002). Examples of CMC include email, listserv lists, chat, webcam, and conferencing software, among others. For the purposes of this study, this term is used to refer to relationships that are primarily, but not exclusively, supported by CMC. While the literature points out that current traditional mentoring includes some form of CMC support, this term refers to the primary support of the mentoring relationship through electronic means.
Infrastructure	A term advanced by Meyer and Barefield (2009) to represent a multi-faceted support system for faculty engaged in the delivery of distance education, which included such services as readily available assistance when technology glitches occurred, help desk support to respond to a broad range of topics, team-based development of course materials, staff development including peer-to-peer mentoring, and proactive administrative policies.
Memetics	This term is used to explain the transfer of cultural and cognitive behavior based on a 'meme', "a unit of cultural information … that can be transmitted from one individual to another and, like genetic material, may undergo variation and selection" (Giordano, 2004, p. 224).
Practitioner	This term is used in conjunction with the term "coach" to describe a new type of relationship in a peer faculty environment. Historically, the terms of mentor/mentee or mentor/protégée have held certain connotations that are not appropriate for a peer-mentoring program. Therefore, this dissertation will refer to the coach/practitioner relationship as one in which one peer in the practice of distance education coaches another in a particular skill to enhance the ease of practice for a fellow practitioner.
Scaling	As used for the purposes of this research, this term is used in the context of the multi-dimensional conceptualization of *scaling* as published by Coburn (2003). Coburn moved the concept of scale for social and educational projects beyond traditional expansion in the number of units, the dimension that she classified as *Spread* (p.7), to encompass: "deep change" in foundational principles, classified as *Depth (p. 4)*, the capacity to persist changes, classified as *Sustainability* (p.6), and the assumed responsibility to initiate new change, classified as *Shift in Ownership* (p.7).

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CHAPTER I

INTRODUCTION AND RATIONALE

Online delivery of distance education is becoming increasingly widespread. While higher education departments are expanding in an effort to provide more courses to ever increasing student enrollments, little has been published to help them successfully scale their operations. Recent research (Meyer & Barefield, 2009) has begun to investigate the appropriate infrastructure that should be provided for faculty and students engaged in online education. The researchers' recommendations included technology support, faculty and staff development, and appropriate policies to achieve those ends. One recommended infrastructure support mechanism reported was an effective peer-to-peer mentoring program. While much has been written on the merits of traditional mentoring, more recent research in workplace practices has begun to investigate the merits of technology supported mentoring, or e-mentoring (Nafukho, Graham, & Muyia, 2010).

Problem Statement

Advances in communication technologies have provided an ease of access for relationships, both personal and business. Technologies such as e-mail, text messaging, web cameras, social media (e.g. Facebook), chat and conferencing software, referred to as computer mediated communication (CMC), offer an opportunity to extend the benefits of traditional face-to-face mentoring by transcending boundaries that would otherwise limit a more traditional mentoring relationship (Bierema & Merriam, 2002).

Work has been done in business applications of e-mentoring, but far less has been done to investigate its use in higher education. Recent dissertation research is beginning to investigate aspects of this infrastructure through a theoretical framework of Communities of Practice (Velez, 2010). Velez (2010) sought to operationalize specific constructs, namely effective preparation, collegiality, and professional development (p. 6) in virtual communities of practice for faculty engaged in online education. While the Velez research documented a need for infrastructure, including mentoring, it did not investigate e-mentoring topics and, by her own admission, was limited by the choice of her sampling.

Therefore, this researcher was spurred by promising findings for e-mentoring in recent research for both business and higher education applications. As a result of the literature review, the gap in the knowledge regarding e-mentoring as a successful infrastructure mechanism to support scaling online education programs was demonstrated. Given the widespread growth of online education programs, research into e-mentoring in that context presented itself as an intriguing opportunity to address a gap in the current literature.

Purpose of the Study

The purpose of this study was to identify processes and procedures in the context of e-mentoring that would lead to successful scaling of distance education programs by providing faculty support in the following areas operationalized by Velez: preparation, collegiality, and professional development (2010, p. 6).

Significance of the Study

While the advantages of traditional mentoring programs, both formal and informal, have been documented, the use of e-mentoring has only more recently been investigated. While the benefits of e-mentoring in the workplace are beginning to be investigated, very little has been written about using e-mentoring to support faculty engaged in distance education. Therefore, this study sought to address that gap in the research.

Overview of Methodology

The data for this study were obtained through the Delphi technique. Powell (2003) described the strength of the Delphi Technique for "situations where individual judgments must be tapped and combined in order to address...[an] incomplete state of knowledge" (p. 376) and remarked it was "particularly valued for its ability to structure and organize group communication" (p. 376). Stitt-Gohdes and Crews (2004) described this technique as "a structured communication process" (p. 55) and recommended its use for the investigation of research problems in career and technical education that benefit from "subjective judgments on a collective basis" (p. 56). Skulmoski, Hartman and Krahn (2007) commented on the use of the Delphi Method in graduate research and described the method as "an iterative process to collect and distill the anonymous judgments of experts using a series of questionnaires interspersed with feedback" (p. 2). One of the preeminent strengths of the Delphi is "its capacity to capture those areas of collective knowledge that are held within professions but not often verbalized" (Stitt-

Gohdes & Crew, 2004, p. 58). Given that this study was predicated on discovering just such collective expectations, there were many merits to using the Delphi approach.

Objectives and Outcomes

While traditional mentoring has been researched at length, the area of e-mentoring has only more recently been investigated. Especially in the area of peer mentoring for faculty teaching distance education, there has been very little published. Based on the gap in research as demonstrated by this literature review, the researcher saw three main areas to address, which will be stated as the following objectives:

- To determine the characteristics of an effective e-mentoring program for faculty engaged in teaching distance education classes
- To extend previous research in communities of practice to identify specific aspects of e-mentoring that would enhance faculty preparation, collegiality, and professional development (Velez, 2010)
- To extend previous research in scaling distance education programs that concentrated on increasing the number of online classes in a department (Mckenzie, Özkan, & Layton, 2006), to identify those aspects of e-mentoring that go beyond *Spread* to contribute to the *Depth, Sustainability,* and *Shift in reform ownership* of distance education programs (Coburn, 2003)

Research Questions

In order to resolve these objectives, the following questions were addressed:

- What attributes of an e-mentoring program for faculty engaged in teaching distance education classes lead to perceived effectiveness by coaches and practitioners?
- What formal and informal activities or organizational processes related to e-mentoring would provide for preparation for teaching online?
- What formal and informal activities or organizational processes related to e-mentoring would provide for collegiality?
- What formal and informal activities or organizational processes related to e-mentoring would provide for professional development?
- What metrics can be used to determine that e-mentoring has led to increased spread, depth, sustainability, and sense of ownership in the distance education community of practice?

The answers to these questions provide a significant advance in the body of knowledge extant in the literature on this topic.

Assumptions

The intent of this study was to leverage the combined expertise of a panel of distance education faculty to determine the most effective ways to use e-mentoring to support preparation, collegiality, and professional development as a mechanism to successfully scale distance education programs. As such, the researcher assumed that:

1. faculty would provide the best pool of expertise to enlighten this area of study,
2. the Delphi technique would produce the best consensus of those experts.

Limitations of the Study

The small sample size, while considered acceptable in the literature for a valid Delphi study, nonetheless limits the generalizability of the findings. Also, as a result of comments made to this researcher by some of the Delphi panelists, survey findings for the context of five to ten years into the future should be considered conservative estimates. One panelist commented that so much is changing currently that it is hard to predict what the landscape will look like in five to ten years.

Delimitations

The sample chosen for this study was limited by the researcher to a cross-section of higher education (a tier one university, an emerging research institution, campuses of a state university system, a four-year college, and a community college) in the state of Texas. Therefore, the conclusions may not have applicability to every institution of higher education.

CHAPTER II

LITERATURE REVIEW

Introduction to the Literature Review

Online education as a method of delivering higher education is becoming increasingly prevalent. In order to continue to successfully expand online education, sound infrastructure and policy to proactively provide for it must exist. That infrastructure requires several factors, including faculty support and professional development (Meyer & Barefield, 2009). One mechanism to provide these is a peer-to-peer mentoring program. This dissertation explored the use of a new nontraditional form of mentoring, referred to as e-mentoring, as one such mechanism for scaling distance education programs.

History of Distance Education

The Rise of Distance Education

Online programs are expanding to provide more students with increasing online classes. Institutions that offered only a handful of online courses a few years ago are now touting the number of not just courses, but programs and degrees offered entirely online. Shelton and Saltsman (2005) quoted a 2002 survey that reported, "1.6 million students took at least one online course" (p. 2). As reported in the Sloan Consortium report released in 2007, during that fall of 2006 almost 3.5 million students, representing nearly 20% of all those enrolled, took at least one class online (p. 1). Allen and Seaman predicted this trend was expected to continue (2007). In their tenth annual report, Allen

and Seaman validated their earlier prediction with findings that 6.7 million students took at least one course online in 2012. That number equated to an astounding 32.0 percent of all students (Allen & Seaman, 2013, p. 4)

Online education is a mode of distance education, which is believed to have first appeared in England in 1840 (Shelton & Saltsman, 2005). As an historical perspective, Rumble (2001) described four phases of technologically-delivered education. The first came into being in the 1840s when the cheap penny postage stamp in England prompted Sir Isaac Pitman to develop a correspondence course for teaching shorthand. The second major advance occurred when broadcasting education to remote areas of the world via radio was used in the 1940's, followed by the Television Universities in the 1950's and 60's in such places as Mexico, Africa, South America and China. The next advancement came in the 1960's and 1970's as multi-media technology made audiocassettes and videocassettes widely available. The fourth and most recent phase in technologically-assisted education erupted on the scene in the 1970's and 80's as the Internet and powerful PCs made online education possible. Research shows that not just the technology; but, the students are changing, as well.

Digital Immigrants and Digital Natives

In 2001 Marc Prensky introduced the world to the startling difference between "digital natives" and "digital immigrants," claiming that the emerging generation of students was fundamentally different from those of previous generations. Why? Because these digitally-fluent students, who grew up almost completely surrounded by technological advances, think differently than their teachers, the digital immigrants, who

have adopted technology like a second language later in life. Baird and Fisher (2006) reached similar conclusions, claiming the new Net Generation of students was "hardwired" (p. 10) to use digital media. Ian Jukes said much the same, claiming that as a consequence of growing up digital, the Net Generation's brains were wired differently (Jukes & Dosaj, 2006, p. 14). All these authors claimed to support the conclusion that the students entering schools today "are no longer the people our educational system was designed to teach" (Prensky, 2001). These authors assert that the students of today are tech savvy and expect their teachers to use technology in the delivery of their education. While some may not want fully online courses, they do expect that the convenience of technology be part of their educational experience (e.g. online course information and wireless internet) (Oblinger & Oblinger, 2005). Nontraditional students are even more interested in the online aspects of education (Oblinger & Oblinger, 2005).

Oblinger and Oblinger (2005) define the nontraditional student as follows:

- "Delayed enrollment—did not enter postsecondary education in the same year they graduated from high school
- Attend part-time, for all or part of the academic year
- Work fulltime—35 hours or more —while enrolled
- Financially independent as defined by financial aid
- Have dependents, other than a spouse, which may include children or others
- Single parent, having one or more dependents
- Lack of a high school diploma" (Oblinger & Oblinger, 2005, p. 2.8).

These "nontraditional" students are drawn to the delivery of higher education through online classes because of the flexibility it brings to their educational pursuits (Oblinger & Oblinger, 2005).

The Net Generation students bring to higher education an expectation that their learning styles will be accommodated. That coupled with the growing number of nontraditional students entering higher education has led to increased distance education and more technology-assisted classes being offered in higher education. Indeed, the market for technology-assisted distance education is growing and investors are pumping funds into distance education businesses (R. S. Friedman & Deek, 2003).

With its history dating back to the nineteenth century and its market growing in the twenty-first, what is the current definition of *distance education*? The Southern Association of Colleges and Schools stated:

> Distance education is defined, for the purposes of accreditation review, as a formal educational process in which the majority of the instruction occurs when student and instructor are not in the same place. Instruction may be synchronous or asynchronous. Distance education may employ correspondence study, or audio, video, or computer technologies (The Commission on Colleges, 1997 as appears in Shelton & Saltsman, 2005).

Technology now allows distance education to be delivered in many innovative ways. Shelton and Saltsman (2005) proclaim, "What academe is experiencing today is only the beginning of what may be the largest paradigm shift in education during our lifetimes" (p. 2).

Kuhn (1996) concluded that when paradigms shift, the shift provides researchers with a direction for their studies. In the case of technology-assisted education, the technology allows for innovation; but, the technology doesn't do all of the work. As a distance education program grows, how does its administration successfully scale the operations of the original department tasked with its implementation? The topic of the problems facing academic departments in scaling their distance education programs is an

intriguing subject and there is very little published to help direct these growing departments in their endeavors. This dissertation explored one approach to support expanding the scale of distance education programs.

Issues of scaling

Scaling

In order to understand the growth of a system, one must understand what lies at its heart. Shelton and Saltsman (2005) stated, "The heart of any distance education program is its faculty" (p. 63). Their book on administration of online education dedicated almost a full chapter to support for faculty, providing assistance to faculty in the transition to online teaching, and mentoring faculty. In *Scaling Up Success,* the editors stress the importance of faculty development in dealing with "issues of scale" (Dede, Honan, & Peters, 2005, p. 84).

In her recently published article about scaling distance education, Jacqueline Moloney (2010) related the following about Upper Iowa University (UIU), "the main obstacle to continued scaling of online enrollments at UIU is identifying qualified faculty, and hiring and training them" (p. 85). She concluded her paper by saying that obstacles to scaling online education will be overcome by "creating new organizational structures that facilitate growth" (Moloney, 2010, p. 92).

Research published by Coburn (2003) provided a new conceptualization of *scaling* that incorporated additional dimensions to the definition. Coburn moved in concept beyond traditional expansion in the number of units (whether modules or classes or schools), the dimension of scale that she classified as *Spread* (p.7)*,* to encompass:

"deep change" in foundational principles, classified as *Depth (p. 4)*, the capacity to persist changes "in the face of competing priorities", classified as *Sustainability* (p.6), and the assumed responsibility to initiate new change, classified as *Shift in Ownership* (p.7*)*. Cromwell and Kolb (2002) alluded to how important social interaction is to the spread of change and that sustainability is a critical element in scaling reform.

Mentorship could provide that social interaction that leads to all of Coburn's scaling dimensions. In the case of online faculty learning communities, mentorship could provide powerful support for establishing culture and sharing best practices. In 2004, Giordano published a paper on the power of shared values in an engineering learning community and reported how effective memetics is in establishing culture each semester for a new class of engineering design students (Giordano, 2004). The reuse of examples of other works from previous endeavors was found to quickly generate a sense of community and culture. The reuse of exemplars could be a powerful mechanism for a peer faculty community helping each other grow in the distance education modality and helping new members acculturate to the online academic community, extending a sense of community to remote as well as campus faculty.

This is an area of great interest in emerging distance education departments (Meyer & Barefield, 2009; Moloney, 2010). While this dissertation would most probably appeal to new or smaller campuses, the lessons learned may be of interest to larger campuses tweaking their programs. Dede published a treatment of the subject in 2005. His remarks were derived from a grant-based study. He commented, "During phase 2, new forms of interpersonal relationships play a central role in garnering and

maintaining support for the continuation of the challenge grant" (Dede, et al., 2005, p. 86). The purpose of the grant was to scale up a prototype for delivering education in grades K-12. The editors pointed out that professional development was key and "needs to take place within organizational structures that enable teachers to learn with their peers" (Dede, et al., 2005, p. 82). While the Dede study addressed scaling technology in the K-12 classroom, it did not research online or higher education approaches.

Virtual Communities of Practice

More recent research in the form of doctoral dissertations pointed to virtual communities of practice as a means to operationalize support for distance education faculty. For example, Velez (2010) investigated "preparation, collegiality, and professional development" as key constructs for creating successful communities of practice (CoPs) for distance education faculty (p. 5). Velez quoted Won Yoon and Johnson's 2008 publication in saying, "Being part of a community of practice (CoP) is a major form of support for distance faculty" (Velez, 2010, p. 7). Velez echoed the conclusions of Moloney when she wrote, "the most important issues to distance learning administrators are training and support of their online educators" (Velez, 2010, p. 8). Velez went on to elaborate about the university's responsibility to share expectations for quality and culture with new faculty, promoting excellence through "continued professional development" (2010, p. 9).

Laksov, Mann, & Dahlgren (2008) described an engineering department that embarked on a community of practice to improve its collective teaching skills. The department employed an educational developer to help to act as a broker to catalyze that

effort. Laksov, et al. (2008) were interested in how a CoP changes those who interact through it. The researchers referred to the work of Wenger (1998, as quoted in Laksov, Mann, & Dahlgren) when establishing their three criteria of a successful CoP: mutual engagement, joint enterprise, and shared repertoire (Laksov, et al., 2008, p. 123). These three terms are used to refer to how a CoP community establishes relationships, takes responsibility for its development, and produces shared resources, respectively. Wenger (2004) later published a paper on knowledge management in which he characterized knowledge as a "strategic asset" (p. 1) that "has to be managed like any critical organizational asset" (p. 1). By managed, he meant that knowledge must be cared for and grown to make it more useful to an organization (p. 1) and that there was growing awareness of the importance of accumulated knowledge within a community. Wenger claimed that the accumulated knowledge became a standard by which a community judged the world around itself (p. 1).

In the Laksov et al. (2008) study the motivating question was whether the peripheral broker could influence a CoP to develop a new joint venture (here, teaching in addition to research). Their conclusions were that educational developers, as the peripheral brokers, can influence the development of a joint venture, but should not lead it (p. 130). They concluded that it was critical that internal agents lead and own such a change for the CoP.

Lesser and Storck (2001) incorporated CMC in their research regarding Communities of Practice. They defined a CoP as "a group whose members regularly engage in sharing and learning, based on their common interests" (p. 831). Their paper

indicated that while most previous research has concentrated on the traditional, face-to-face communication, "there is nothing in the classical sociological definition of community of practice that rules out communication media such as e-mail, discussion groups, or chat rooms as support mechanisms for participating in distributed communities of practice" (p. 832). The primary focus of the CoP is that the interaction "emerges from a work-related or interest-related field" (p. 832). They included in their definition the phrase "and that its members volunteer to join" (p. 832). The authors noted that while the members of CoP are often considered the benefactors of their relationship in terms of heightened learning and motivation, it is now becoming recognized that CoPs themselves have value. Their value, which accrues to the organization to which its community members are attached, is manifested in terms of enhanced performance, problem solving, and "a means to developing and maintaining long-term institutional memory" (Lesser & Storck, 2001, p. 832). As such, a CoP becomes not only a repository, but also a wellspring, of organizational social capital (Lesser & Storck, 2001).

Lesser and Storck (2001) referred to the framework developed by Nahapiet at Oxford University and Ghoshal at the London School of Business with the following description of social capital:

> "the sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or social unit" (Nahapiet & Ghoshal, as quoted in Lesser & Storck, 2001, p. 833).

Nahapiet and Ghoshal (1998) described three facets of social capital; namely, *connections*, *sense of trust*, and *common interest*. These terms map very closely to the

criteria (mutual engagement, joint enterprise, and shared repertoire) that Wenger used to describe CoP (1998, p. 73). The Lesser & Storck (2001) research hypothesis was that "the vehicle through which communities [of practice] are able to influence organizational performance is the development and maintenance of social capital among community members" (p. 833). They interviewed five to ten participants in each of the business CoPs at the seven companies engaging in the study. Their research demonstrated significant evidence that CoPs undertake activities in the structural, relational, and cognitive dimensions, which influence the development of social capital (p. 834). Structurally, CoPs create communication channels that result in more rapid and efficient information transfer. The CoP develops relationships and networking connections that articulate *obligations,* share *norms*, express *trust* and interpersonal bonds, which lead to a sense of *identity* for the group; all relational components of social capital according to Nahapiet & Ghoshal (1998). Finally, CoPs share a context through a common language or jargon, which is considered the cognitive dimension of social capital (Lesser & Storck, 2001, p. 834). Of significant importance in building context was the repository of shared artifacts maintained by the CoP for the purpose of reuse by other community members. Lesser & Storck (2001)referred to this as "storing the collective memory" (p. 836) of its members. Decided advantages listed by the researchers were those of enhanced learning curves, increased responsiveness, reduced rework, especially by decreasing "reinvention of the wheel," and increased creativity (p. 836). Significant to the relational connections spawned by CoP is the fostering of mentor-mentee relationships reported by Lesser and Storck, another way the CoP

protects and transfers institutional knowledge. This is an especially important feature for CoPs, as the researchers found they conserve tacit knowledge (p. 837). Lesser and Storck quoted one CoP member, "There was a sense of belonging to a family of like-minded people" (p. 839).

Another framework frequently cited in more recent literature is that of the Community of Inquiry (CoI) advanced by Garrison, Anderson and Archer (2000). Their framework assumed that learning depends on the interaction of three factors: cognitive presence, social presence, and teaching presence (p. 88). Subsequently Garrison and Arbaugh (2007) published a review of earlier works that expanded upon the importance of "the intersection of social and cognitive presence" (p. 159). In that work, the importance of community based on "common purpose and inquiry" is underscored (Garrison & Arbaugh, 2007, p. 159).

Friedman (2008) combined both frameworks, pointing out that in action science the same participants in a community can both produce knowledge and use it. According to Friedman, when practitioners critically examine their own skills with the goal of improvement, the community of inquiry is created within the community of practice.

Faculty Development for Online Teaching

Faculty Development and Mentoring

Research points to the efficacy of a community both producing and leveraging its collective knowledge (V. J. Friedman, 2008; Nahapiet & Ghoshal, 1998; Wenger, 2004, 2006). Traditionally, face-to-face delivery of education has been studied. Now, with

increasing emphasis focused on delivering existing courses online, the need to do so with excellence is gaining attention.

In 2009, Sessums' dissertation outlined the importance of faculty development. Sessums' research indicated that "participants perceived value in the online learning community as a communication medium that supported collaborative learning and knowledge production" (p. 11). His research identified a number of roles that contribute to the online learning community. In particular, the role of the online coach was found to be "critical to the success of the community" (Sessums, 2009, p. 148).

In 2005, researchers at the University of West Georgia (UWG) sought to investigate a program to help face-to-face teachers to transition to teaching online. As part of the traditional orientation program, the faculty members of the College of Education at the UWG were each assigned a distance mentor. The mentor/mentee relationship included input from the mentor to assess the mentee's usual class syllabi and suggest an appropriate course to convert to an online offering. Both the mentor and mentee received a reviewing fee of $100. The mentor could receive up to $600 for assisting a new faculty member in putting a course online. The mentee could receive up to $400 ($200 for up to two classes). The distance mentoring program was so well liked by the faculty that the Dean continued it into the spring of the next year (Mckenzie, et al., 2006). The main challenge to the program was that it was so well regarded that it was difficult to find enough distance mentors to support the number of mentees seeking to join the program.

The use of virtual learning in the workplace was further researched by Nafukho, Graham, and Muyia (2010), who reported, "advances in technology have led to a paradigm shift in the instructional processes for workplace learning and performance" (p. 649). In the area of Human Resource Development (HRD), there is growing awareness of the institutional capital bound within the knowledge assets of organizations (p. 649). With increasing pressure on travel budgets, organizations are investigating the use of technology to enhance their workers' abilities to collaborate, regardless of their geographic separation (p. 655). The authors pointed out that with the advent of new social media, such as blogs, tweets, texts, Skype calls, Chat, and YouTube, to name just a few, knowledge transfer can be accomplished for the worker in myriad of ways (Nafukho, et al., 2010, p. 657).

Traditional Mentoring

Mentoring has shown to be very valuable to career development in many professions (Baiocco & DeWaters, 1998, p. 265). The origins of mentoring have been widely attributed to ancient Greece. The epic Greek poem, the *Odyssey,* is a story about Odysseus, the King of Ithaca. Odysseus left his son Telemachus in Greece while he fought the Trojan Wars. Before his departure, Odysseus asked his friend Mentor to provide counsel for Telemachus during his absence (Kirk & Olinger, 2003). While the origins of the word in western civilization can be traced to Greek literature, scholars have found evidence of this kind of mentorship relationship in Africa long before the dawn of the Greek civilization (Kirk & Olinger, 2003). In short, this type of relationship has had a sustained presence down through the ages.

There are many benefits derived from successful mentoring relationships, not just for the learner but for the mentor and the organization, as well. The mentor enjoys feedback from a fresh perspective and is often able to make his own efforts more productive because of the assistance of the learner. The learner naturally derives benefit from improved skills, career opportunity, and a sense of accomplishment. Finally, the organization achieves immense benefits from successful mentoring relationships. Improved performance, increased organizational intellectual capital, higher retention of qualified individuals, and better understanding of organizational policies are all added benefits. Perhaps the most important organization benefit is a consequence of all the above. Employees that are confident, happy, rewarded, and feel secure in what they are doing are far more committed to their organization (Kirk & Olinger, 2003).

Kirk and Olinger (2003) reported that there are four primary roles in a mentoring relationship: Coach, Facilitator, Counselor, and Network provider. The Coach provides the learner with examples of successful work. The Facilitator creates opportunities for the learner to apply new knowledge and skills. With a Counselor, the learner can explore the ramifications of different approaches. Finally, the mentor provides a network of other experts to continue to grow the skills of the learner when she begins to excel in the area of the mentor's expertise (Kirk & Olinger, 2003).

Mentoring relationships require patience and sensitivity. Baiocco and DeWaters (1998) pointed out that feedback on teaching could be difficult because teaching styles are so personal; therefore, they recommended moving the focus away from improving teaching to one of improving learning. Focusing on solving learning problems allows

faculty to reflect and innovate to develop a solution (Baiocco & DeWaters, 1998, p. 250).

Baiocco and DeWaters (1998) did point out, however, that a mentoring community can prove to be ineffective in higher education if not properly conceived. There have been times when the expert-protégé paradigm may not work, as when the expert, the mentor, is a more junior member of the organization or when the student is already more advanced than the training being delivered. They concluded, "institutional initiatives which offer development options to all faculty based on their career stage needs are most likely to be successful" (p. 266).

Virtual Mentoring

While mentoring in the traditional sense offered many benefits, as universities move into the digital age, mentoring geographically dispersed faculty will require some innovation to be successful. Kirk and Olinger (2003) refer to that less traditional style of mentoring as "virtual Mentoring"(p. 12).

Bierema and Hill (2005) pointed out that "face-to-face mentoring relationships are not always practical in a knowledge society where communication is instantaneous, computer mediated, and global" (p. 557). As a consequence, they reported, virtual mentoring is on the rise (p. 557). One of the main reasons for its interest is because it does not require that the mentor and mentee be co-located, expanding the possibilities of relationships across time and geography (Bierema & Hill, 2005, p. 559).

Virtual mentoring is also referred to as "e-mentoring," "telementoring," and "online mentoring" (Kirk & Olinger, 2003, p. 13), and "cybermentoring" (Kasprisin,

Single, Single, & Muller, 2003, p. 68) and involves a relationship that is supported in a virtual fashion by use of digital media. At the time Kirk and Olinger published their work, the primary channels available were email, asynchronous discussion, and some online virtual mentoring programs. Since then synchronous chat boards, webcams, and SMS texting have joined the possibilities for virtual interaction.

The Kirk and Olinger (2003) article also pointed out that there are pitfalls associated with an approach to mentoring that removes human interaction. Their recommendation was to provide training and encourage preparation. Similarly, the study documented by Kasprisin, Single, Single and Muller (2003) demonstrated that participation in an online tutorial increased involvement in online mentorship programs. While they pointed out that it is sometimes easier to communicate in writing than face-to-face, they also point out that issues of confidentiality need to be understood before engaging in e-mentoring (Kasprisin, et al., 2003).

Some of the advantages of virtual mentoring are the flexibilities in terms of time and space that are afforded by this approach. The mentor and protégé need not be in the same place at the same time for the two to participate. This opens the possibility of faculty in remote areas participating in mentorship programs that ordinarily would not be available to them (Kirk & Olinger, 2003). Knouse (2001) also pointed out that virtual mentoring provided expanded opportunities for women and minorities to find successful mentoring relationships.

The Kirk and Olinger (2003) paper provided several examples of online professional mentorship programs. One example of such a program is the NursingNet,

which is intended to provide nurses anywhere with a venue to discuss current medical issues and obtain answers to nursing questions (Kirk & Olinger, 2003, p. 16).

A singular work regarding memetics provided a striking prospect. Giordano's (2004) research on the power of memetics to quickly bind a new cadre into a culture of accepted standards of best practice and supportive peer collaboration among engineering design students offered promise for investigation in a professional setting. Her research leveraged the theoretical framework of memetics, which explained the transfer of cultural and cognitive behavior based on a 'meme', "a unit of cultural information … that can be transmitted from one individual to another and, like genetic material, may undergo variation and selection" (p. 224). Kaagan and Headley (2010) believe that a culture of collaboration will bind and empower professional learning communities.

Tessmer's research in 2008 investigated "the relationship between a professional learning e-community and transfer rate of learning in new adjunct faculty" (p. 6). She identified several critical insights, one of which was the importance of goal setting and practice to transfer of knowledge (p. 113). Tessmer also discussed a Virtual Adjunct Mentoring program documented by Puzziferro-Schnitzer (2005), which provided individual "collegial support" (p. 119). In that program, the mentors were matched to the new adjuncts "based on software expertise and discipline" and were compensated with a stipend "for each semester of service" (p. 119).

Velez (2010) also advocated for "a solid mentoring program for new faculty members" (p. 127) and "short, periodic online workshops focused on important issues related to online teaching and learning" (p. 127). In addition, she recommended

providing an "online portal" (p. 126). In research published by Sherer, Shea, and Kristensen (2003), the authors described the increasing pressure on faculty to keep ahead of the torrent of new information they must process. They saw a need for the traditionally lone researcher to "become more interdependent and mutually supportive" (p. 184) in that effort. They also felt that CoPs provided an ideal mechanism for faculty to work together to filter that information and make it more useful for their peers. Further, the combination of computer mediated communication (CMC) technology with a CoP afforded faculty the means for enhanced "teaching, learning, research, service and professional development" (p. 184). Referring to the CoPs as Faculty Learning Communities (FLCs), faculty learning groups, and teaching circles, among others (p. 185), Sherer et al. advocated for an online one-stop shop where faculty could find an array of helpful services and information. They referred to that online, customizable center for faculty as an FLC portal. The authors described the effort to design such a portal as "daunting" (p. 191), but well worth it if successfully implemented, for it becomes a university-wide resource for knowledge sharing, best practices, and academic development. One of the main benefits of such a portal, according to Sherer et al. (Kasprisin, et al., 2003), is that the relationships generated through the portal become "a virtual group of experts for colleagues" (p. 190). Purcell (2004) provided a commentary on the benefits of virtual mentor-mentee relationships, recommending that administration provide for the time necessary to build successful mentoring relationships. Velez (2010) claimed that a virtual community of practice provides benefits "far beyond the faculty who participate in it" (Velez, p. 123).

While some of the mentoring programs described in the previous paragraphs were formally established programs with predetermined selection criteria for mentors, a process to match mentors with protégés, and a compensation scheme for the mentors (Mckenzie, et al., 2006), Thompson (2006) pointed out that not all mentoring relations are the result of formal programs. Indeed, her research investigated the informal faculty mentoring that spontaneously developed in one academic department that offered online courses but did not provide formalized faculty development. In that case the mentees sought out more experienced faculty members with whom they were comfortable to obtain mentorship as needed (Thompson, 2006). Bierema and Hill (2005) concluded their publication with the call to more fully investigate the potential, as well as the pitfalls, of this growing career development tool (p. 565). But, questions remained unanswered in the extant literature. One pressing question for administrators is whether faculty will adopt such a support mechanism. Little has been published on the subject. It is logical to ask if faculty will jump onboard. Departments starting or growing a distance offering would want to know if this approach works.

Organizational Implications

Strategic Leadership

Shelton and Saltsman (2005) summed it up, "In comparison to the numerous volumes of materials regarding the teaching and learning aspects of online education, there is substantially less written on the subject of leadership" (p. 10). This is an area that is extremely interesting to this researcher.

Velez (2010) pointed to the importance of nurturing online collegiality by providing "a forum for faculty with an area to interact and get answers to questions" (p. 125). She advocated for encouraging "both new and seasoned instructors" to participate (p. 125). In addition, "easy access to administrators and other support personnel" also play a part in developing an atmosphere of collegiality in an online environment (p. 125).

Similarly, one of Tessmer's (2008) insights centered around the importance of "supervisor support and feedback," which she claimed were "crucial to performance success" (2008, p. 115). Cromwell and Kolb (2002) found that trainees who felt supported at work reported they got more out of their training.

Cunningham and Cordeiro (2009) wrote about the importance of cultural leadership in building a cohesive organization, an organization that is responsive to the environment. They argued that a cohesive organization provides the flexibility and adaptability necessary to elicit solutions to challenges, yet still provides the stability that produces improvements in educational performance. "Leading requires breathing spirit and passion into the life of the organization" (p. 210). That kind of vigor in an organization resonates with Moloney's (2010) call for growth through innovative organizational structures. Wenger (2004) strongly advocated for executive sponsorship, claiming it was critical to the successful establishment of CoPs as strategic sources to grow and protect organizational knowledge.

Cunningham and Cordeiro (2009) carried their treatment of leadership into a discussion of "transactional" versus "transformational" leadership (p. 210). Scaling

distance programs will require transactional leadership in terms of assessment of problems and providing solutions; but, sustainable growth will require transformational leadership. Transformational leadership leads to achievement through elevated goals and common commitments to innovation and continuous improvement (p. 210).

It can be argued, however, that change comes slowly in academia. Baiocco and DeWaters (1998) remarked that select faculty, while spending lifetimes dedicated to advancing new ideas in their own discipline, will resist change in educational delivery. The premise advanced by Baiocco and DeWaters is that academia is slow to accept change because academics are used to challenging new frontiers of knowledge before accepting new ideas. The result is that change is accepted at a much slower pace.

One can attribute this "institutional inertia" (Baiocco & DeWaters, 1998, p. 26) to academia's time-tested traditions from a medieval heritage. However, a closer look at the medieval institution of higher education can be eye opening. Byrd's (2001) research on the topic demonstrated that the medieval university was a response to a need for change in the educational delivery system during the eleventh century. Byrd recounted a medieval system responding to tremendous growth and energy in the trade and finance sectors of Europe at the time and that the medieval system was intended to increase access to education radically. The European university "was organized for the dissemination of many branches of knowledge to a large number of students as cheaply and systematically as possible" (Byrd, 2001, p. 3).

The premise of Byrd's (2001) paper is that the current university system is facing the same pressures of a paradigmatic shift in education. What he referred to as "the

shortened shelf life of knowledge" (p. 5) is motivating corporate universities to grow in delivery of adult education at a phenomenal rate. Byrd pointed to leveraging technology to provide virtual universities as a way for traditional universities to successfully scale to provide the access and affordability required to compete in the new higher education environment.

Technology now offers the promise of a college education to more people than ever. Massachusetts Institute of Technology (MIT) has embraced a new paradigm for delivering higher education. MIT's 2002 initiative to make all their courses available freely and online, called MIT OpenCourseWare, "has attracted 150 million learners worldwide" according to MIT's President L. Rafael Reif (2013). According to Reif, MIT now claims students from every country around the world, including students from every state in the U.S. He outlines many advantages of the digital learning approach, from more effective learning to more cost effective education delivery. MIT faculty, experimenting with course delivery by "strategically" incorporating blended online learning technologies, are finding innovative ways to deliver more engaging and effective course materials (Reif, 2013). As a consequence, they find they are opening time in their schedules "to focus on education: detailed discussions, personal mentorship, project-based learning" (Reif, 2013). MIT is evaluating a new paradigm for a customized model of residential higher education that Reif anticipates could reform higher education delivery in ten to twenty years. Faculty development is the crucial element for educational reform (Baiocco & DeWaters, 1998). If higher education must move to online pedagogy to remain competitive, what would be more natural than to

provide the professional development necessary for that transition via an electronic medium, as well? One mechanism to aid the transition is an e-mentoring program. To quote Bierema and Merriam (2002), "possibilities for e-mentoring are as endless as the Internet" (p. 223).

Organizational Policy

With the extension of organizational theory comes the potential for major changes to the policy that directs the activities of the online education department and its interrelationships with other traditional departments. Policy that assists in the scaling of online education departments will impact the traditional academic department. It is also an area that Velez (2010) remarked is of importance to online faculty. "Institutional policies, procedures, faculty expectations, the faculty evaluation policy, and consequences of faculty performance" (p. 123) are important topics to new online instructors, as well as are examples of other online courses and tools, and the advice in handling "typical online student issues" (p. 124). Tessmer (2008) found that "leadership-driven process" was critical in "promoting a culture of accountability" (p. 117). Snyder (2005) commented that "communication in a virtual university is critical to distributing organizational expectations with a physically dispersed faculty" (p. 84), pointing out that a "university needs to recruit, develop, and retain competent faculty"(p. 3).

Leadership and culture are critical to attracting and retaining faculty. These are aspects of socialization. Tierney (1997) pointed out, "socialization involves a give-and-take where new individuals make sense of an organization through their own unique

backgrounds and the current contexts in which the organization resides" (p. 6). Tierney advocated that technology and communication advances would "enable, indeed demand, that an organization's participants work toward innovation and change rather than the status quo" (p. 14). This learning by doing was also researched by Levitt and March (1988) who referred to the effect of this learning as *organizational memory* (p. 327*)*. Their research showed that successful innovations spread like a virus through a susceptible group (p. 330), which they referred to as *diffusion.* Hence, if e-mentoring can be shown to be effective, new ways to handle online education could be communicated from coach to practitioner and shared from practitioner to practitioner, thereby diffusing throughout a supportive, collaborative community. This network could allow for diffusion of creativity, fostering growth and change within an online organization. This could be a very powerful aspect of mentoring and e-mentoring.

There is a wealth of research in organizational theory. Texas A&M is graced by the world's preeminent researchers in this field. Their work is textbook, literally. The online dimension promises to leverage into a new environment the organizational theories that currently explain organizational dynamics. As previously mentioned, Moloney (2010) holds out great promise for organizational theory's impact on the scaling of online education. In keeping with Moloney's statements, Velez (2010) recommended that administrators monitor the turn-around time on support responses to online faculty, advocating that long lapses in responsiveness might provide a trigger to reorganize into "smaller, more manageable departments, or hiring a support person to deal with faculty issues, support, and concerns" (p. 126). Technical support for faculty

is but one of many topics that has recently been researched under the topic of *infrastructure* for distance education programs.

Infrastructure

Meyer and Barefield (2009) advocated that a sound infrastructure be put in place before distance education programs are begun. Their definition of *infrastructure* was multi-faceted and predicated on the need to talk with faculty to discover what would be of most assistance to them. Meyer and Barefield included recommendations for support for faculty when technology glitches occurred, help desk support to respond to a broad range of topics, team-based development of course materials, staff development including peer-to-peer mentoring, and proactive administrative policies.

While mentoring is advocated as but one aspect of the necessary infrastructure for a successful distance education deployment, lessons learned from organizational theory show a technology-supported mentoring program could be an effective mechanism to build the social capital crucial to scaling a distance education program.

Conceptual Framework

There is a growing body of research dedicated to the social and participatory aspects of learning (Tessmer, 2008). Etienne Wenger and Jean Lave authored foundational work for the framework referred to as Community of Practice (CoP). Their framework presented learning as a social mean-making generated as a result of the interactions of organization, learning, and practice. Wenger (1998) presented his conceptual framework for lifelong learning as a three dimensional community comprised of engagement, joint enterprise, and shared repertoire (p. 73). He defined CoPs as,

"groups of people who share a concern or passion for something they do and learn how to do it better as they interact" (p. 1). Wenger used the term *joint enterprise* to represent a common domain of expertise, *mutual engagement* to describe "a network of interpersonal relationships" and *shared repertoire* to represent the artifacts developed as exemplars to save and to disseminate practices within the CoP's domain (p. 74).

The term *collaborative constructivist perspective* was coined by Garrison, Anderson and Archer (2000) to refer to the concept of a necessary combination of individual reflection with shared experience to achieve learning. Similar to the Lave/Wenger model, their work was premised on a framework comprised of three elements the researchers considered crucial to a successful learning experience: social presence, cognitive presence, and teaching presence (p. 89). They referred to this interacting model as a Community of Inquiry (CoI). The researchers considered cognitive aspects of their model to be the most important to higher education learning. By this term, they represented a group's ability to construct meaning through "sustained communication" (p. 89). The social aspect of learning was ranked as second most important and represented the ability of individuals in the group to take on an identity as participants. Finally, the teaching presence represented a combination of presentation and facilitation. The authors indicated that in educational scenarios, a teacher most often fills this role; but stated that any one in a CoI could fill the role.

These works are supported by fundamental organizational theories of social capital as organizational assets. Schein (1990) described organizational culture in this way, "Culture is what a group learns over a period of time as that group solves its

problems of survival in an external environment and its problems of internal integration" (p. 111). It is the dissemination of practices within CoPs that produces socialization of new members. As Tierney (1997) pointed out, "socialization involves a given-and-take where new individuals make sense of an organization through their own unique backgrounds and the current contexts in which the organization resides" (p. 6).

These aspects of learning are directly tied to the conceptualization of scaling. Coburn (2003) presented an elegant treatment of complexities of *scaling* a process or system over time in four interrelated dimensions: *Depth*, *Sustainability*, *Spread*, and *Shift* in ownership (p. 3). By *depth,* Coburn meant the internalization of the goal as manifested in participative behavior (p. 4). *Sustainability* represented that an implementation had taken hold (p. 6). *Spread* was the term Coburn used to refer to the usual connotations of growth in size and outreach (p. 7). Finally, *Shift* represented a change in ownership from an externally motivated behavior to a "self-generative" one (p. 7).

Mentoring has been demonstrated to produce a number of benefits for individuals and organizations. It is within the aspects of social and participative learning as described in these frameworks that the benefits of e-mentoring for scaling online programs would be judged.

Conclusion of the Literature Review

While literature exists in each of these categories, very little research has been done when taken in the context of scaling online education programs or learning communities specific to distance education. As such, application of existing

research, performed in face-to-face classroom environments, to the distance education paradigm may be misleading.

By researching the impact of a peer faculty e-mentoring learning community on the growth of a distance education program, insights in the area of higher education policy and distance education administration may be generated. If faculty members "buy in" to the learning community and foster mentorship and communication of best practices, the efforts of the distance education department are consequently multiplied. If faculty fail to participate, the lessons learned would be equally as important to growing distance education departments.

The approach to researching this study was to do a Delphi study at campuses starting and growing distance education departments. The goal of the study was to determine a consensus of opinion regarding procedures and practices for a peer faculty e-mentoring learning community that would effect scaling by providing support for faculty in areas of preparation, collegiality, and professional development.

CHAPTER III

METHODOLOGY

Introduction

While online programs are growing, little research has been published on ways to successfully support the scaling of those growing departments. The research that is beginning to appear in this area offers interesting propositions to investigate. Fixsen (2009) sought to operationalize the term *scaling* and researched that concept across a number of disciplines. While engineering and computer science disciplines use the concept of scaling a process or a system to describe expanding functionality or the ability to handle throughput for a heavier load, the definition of scalability in education and human services remains more complex (p. 3). Of the frameworks researched by Fixsen, Coburn (2003) elegantly described the service-related complexities over time by use of four interrelated dimensions: *Depth*, *Sustainability*, *Spread*, and *Shift* in ownership (p. 4).

While Coburn's (2003) research was motivated by the challenges of scaling reform in public education; her research synthesized scale literature to form a broader framework. Her concept of scalability went beyond numbers to include the qualitative aspects of success, as reflected in the four dimensions. It is those underlying qualitative aspects of scaling that form a framework that help to establish the metrics for success. By *depth,* Coburn described internalizing the goal as manifested in participative social interaction. The notion that the underlying momentum of the early effort had taken hold

for the long term was referred to as *Sustainability*. The more traditional connotation of scale, that of being related to larger numbers (of students, modules, classes), Coburn denoted by the term *Spread*. Finally, the term *Shift* was used to describe the "self-generative" behavioral change from being an externally motivated process to an internally derived ownership (p. 7). These areas of scale lend themselves well to a qualitative research design.

Meyer and Barefield (2009) advocated for proactive policy and practice in an online education program to promote the proper infrastructure to support scalability. They advocated strongly that the researcher should go to the faculty and ask *them* what they need instead of relying on purported experts to obtain such information.

Alicia Velez did just that. Velez (2010) applied the principles of a Community of Practice (CoP) in her dissertation research. She sought to operationalize the constructs for "preparation, collegiality, and professional development" (p. 5) in virtual communities of practice for faculty engaged in online education. One of the outcomes of the Velez research was to advocate for a strong mentoring program, especially for faculty new to teaching online. Since her research has established these as operational constructs, they inform the research questions for this study and formed the basis for the survey questionnaire for this research.

Literature published to date has begun to include the merits of e-mentoring as a valid form of support for employee development within organizations. However, even the most recently published works have not specifically investigated the use of e-mentoring as a form of support for online faculty. The Velez work did operationalize

three constructs for an effective virtual CoP and advocated for further investigation into the work she began. This has led to focusing on how e-mentoring specifically would contribute to these three constructs. Since current research has not specifically addressed e-mentoring as a support mechanism in these constructs, this study addressed that gap in the literature.

Research Perspective

There is a growing acknowledgement of the social and participatory aspects of learning (Tessmer, 2008). Garrison, Anderson and Archer (2000) coined the term *collaborative constructivist perspective* to refer to the concept of a necessary combination of individual reflection with shared experience to achieve learning.

Research Design: The Delphi Method

Velez (2010) effectively employed the Delphi Method to build a consensus approach to operationalize the characteristics to support preparation, collegiality, and professional development for online faculty. However, more research needed to be done to refine the expectations among online faculty, especially in regard to the merits of e-mentoring, before an intervention program is designed.

Since this is a topic of research that is not well defined, a qualitative approach to studying this problem was desirable. The Delphi method is one form of qualitative research methodology described by Merriam and Simpson (1995). That approach is particularly useful for the following reasons: 1) when the problem under study would benefit from a collective subjective judgment and 2) in cases where face-to-face meetings would be impractical.

While face-to-face interviews garner rich contextual information, the literature pointed out that it fails to generate the interaction between participants that can lead to consensus. Skulmoski, Hartman and Krahn (2007) published an article on the use of the Delphi Method for graduate student research at the University of Calgary. They described the method as "an iterative process to collect and distill the anonymous judgments of experts using a series of questionnaires interspersed with feedback" (p. 2). An important strength of the Delphi is "its capacity to capture those areas of collective knowledge that are held within professions but not often verbalized" (Stitt-Gohdes & Crew, 2004, p. 58).

This research project implemented the Delphi Method through iterative rounds of electronic surveys delivered by email as a Microsoft Word document. The possible rankings (Unimportant, Helpful, Important, Very Important) for each survey question were presented as a dropdown box. In addition to the four-point Likert-type options and consistent with the literature, the choice of "No Judgment" was offered for each survey item (Turoff, Hiltz, Cho, Li, & Wang, 2002).

In subsequent iterations, the Delphi participant was provided with the group mean and their ranking for each survey item from the previous round (Appendix I and Appendix K). The participant was able to change their previous ranking for any item after reviewing the group mean. On those items for which the panelist had previously registered either "No Judgment" or a ranking, the dropdown box also contained the "No Change" option.

The responses from each round were transferred to a spreadsheet and descriptive analyses were performed using the SPSS Statistical package, Version 21.0 with the custom tables module.

Merriam and Simpson included the Delphi technique as one of the descriptive research methods in the form of qualitative research known as *futures* research (1995, p. 65). The traditional Delphi technique has been considered a qualitative methodology but recent literature has presented arguments for using further inquiry, including mixed methods, to enhance validation (Kennedy, 2003). It is primarily qualitative in its first round and employs statistical analysis to evaluate the results of the second and third (or more) rounds. Comments provided by participants to further qualify their responses enhance validity.

Research Questions

Traditional mentoring has been researched at length; however, the area of e-mentoring has only more recently been investigated. In that area, e-mentoring in the workplace and between senior mentors and youth have been more extensively researched. However, the area of peer mentoring for faculty who are teaching in distance education is an emerging area of interest and there has been very little published about it. Based on this gap in the research, this research sought to address the following objectives:

- To determine the characteristics of an effective e-mentoring program for faculty engaged in teaching distance education classes

- To extend previous research in communities of practice to identify specific aspects of e-mentoring that would enhance faculty preparation, collegiality, and professional development (Velez, 2010)
- To extend previous research in scaling distance education programs that concentrate on increasing the number of online classes in a department (Mckenzie, et al., 2006), and to identify those aspects of e-mentoring that go beyond *Spread* to contribute to the *Depth, Sustainability,* and *Shift in reform ownership* of distance education programs (Coburn, 2003)

In order to achieve the objectives of this study, the following questions were addressed:

- What attributes of an e-mentoring program for faculty engaged in teaching distance education classes lead to perceived effectiveness by coaches and practitioners?
- What formal and informal activities or organizational processes related to e-mentoring would provide for preparation for teaching online?
- What formal and informal activities or organizational processes related to e-mentoring would provide for collegiality?
- What formal and informal activities or organizational processes related to e-mentoring would provide for professional development?
- What metrics can be used to determine that e-mentoring has attained increased spread, depth, sustainability, and sense of ownership in the distance education community of practice?

The protocol questions employed in the survey tool were used to determine consensus on what activities and processes are needed at the present time as well as those perceived to be important in the coming years.

Subjects, Participants, Population, and Sample

Velez (2010) focused her study on experienced adjuncts having taught distance education classes at more than one institution. By her admission, this limited the generalizability of her findings. To broaden the generalizability of the study, this researcher sought to obtain information from across a broad spectrum of distance educators and institutions. This researcher incorporated faculty engaged in online education from a tier one university, an emerging research university, a four-year college, a community college, and at emerging state university system campuses.

To obtain sources of information that can provide "information-rich cases" (Merriam, 2009, p. 78), this researcher employed *purposeful sampling*. Since Velez (2010) limited her participant pool to adjunct educators with experience teaching at two or more institutions, the generalizability of her findings were limited by her pool (2010, p. 3). Therefore, this researcher pursued a *typical* purposeful sampling, which included faculty with a wider range of teaching experiences.

The success of the Delphi Technique depends on tapping the expertise of the panelists. Powell (2003) claimed the two critical factors of the panel are the size of the group and the qualifications of the expert panelists. Ziglio (1996) found that good results were documented with expert panels of 10 to 15 participants. He found that more crucial than size was the selection of experts appropriate to the topic under study. While

the nature of the expertise was specific to the study, he found the following criteria critical for the selection of the Delphi participants:

- Knowledge and practical engagement with the issues under discussion;
- Willingness to contribute to the Delphi exercise;
- Commitment to contribute the time necessary to complete the study;
- Skill in written communication and in prioritization (Ziglio, p. 14).

The Delphi Technique requires an immense commitment on the part of the panelist, since the full exercise may take 3 to 4 rounds to complete. Realizing that even the most motivated of panelists may meet with circumstances that prevent participation throughout the full course of questionnaires, this researcher's goal was to obtain a participation commitment from at least 20 but no more than 25 participants.

The IRB boards of all institutions, as well as the institution of the researcher, were consulted and the researcher received approval to contact faculty and provide information and consent forms to the potential participants. At each campus, a contact was established with a faculty member who was willing to suggest interested faculty members to contact. After all consent forms were returned, a pool of 24 panelists had been assembled for the Delphi Study.

The list of the panelists who gave their permission to share their identity as part of this dissertation appears in Appendix A.

Unit of Analysis

The data were evaluated on an individual basis. While it is hopeful that the outcome of this study will be used to establish policy for an organization, the results of the surveys were based upon individual faculty feedback.

Research Variables

This study looked at such attributes as collegiality, professional development, and preparation as researched by Velez (2010) in support of scalability criteria, namely Depth, Sustainability, Spread, and Shift in ownership (Coburn, 2003). As implemented in the survey, in the first round there were a total of 73 survey items, presented in both the present and future context, for a total of 146 items tested. Feedback from the first round resulted in additional items being added. So, there were 93 survey items, presented in both the present and future context, for a total of 186 items tested in the second round. Only items that had not reached consensus were surveyed in third round; so, a total of 40 items were tested on the third round.

Research Instrument: Delphi Study

The methodology used in this research was the Delphi Study, also known as the Delphi Method or Delphi Technique. Merriam and Simpson (1995) categorized the Delphi Method as a qualitative research methodology included in the *Futures Research* techniques (p. 65). They described Futurist research as being predicated on the *Principle of Continuity,* which suggested that observed behavior today would continue into the future. As such, the results of Delphi techniques can be used in long-range planning.

The ‘Delphi’ technique was created by Olaf Helmer and Norman Dalkey for the RAND Corporation in the mid-twentieth century to improve forecasting future uses of technology (Ziglio, 1996). The technique structured group communication, usually geographically dispersed participants, to generate consensus of opinion. As Turoff and Hiltz (1996) remarked, one of the Delphi’s most important properties is that participants can communicate in an asynchronous manner.

The Delphi Method is based on an iterative approach to obtaining consensus (Linstone & Turoff, 1975, p. 5). Often a pilot study is done before beginning the full study (Hasson, Keeney, & McKenna, 2000). The Delphi Study then proceeds through an iterative approach to determine consensus of the experts engaged in the study.

This study followed the methodology of determining consensus by distributing successive rounds of an electronic survey in Microsoft Word format to geographically dispersed individuals. The Delphi Panel participants were asked to rank each survey item as to its level of essentiality. Following each round, the participants were able to reevaluate their responses in light of the mean of the entire panel’s responses. They were then able to change their essentiality rating. The rounds continued until consensus was reached. In most cases, Delphi consensus is reach in three to four rounds. In the case of this research, all questioned had reached consensus by the conclusion of the third round. Consensus was determined by reaching a stability of results between rounds. The stability factor adopted for this study is discussed in the subsection entitled “Consensus for the Delphi Study” later in this chapter.

Pilot Study

A pilot study is often recommended as part of a Delphi study to focus efforts on the goals of the study and to refine the survey questions (Skulmoski, et al., 2007). While drawn from the same sampling pool as the research participants, the Pilot participants did not themselves participate in the research study. Therefore, in considering the number of participants needed for the study, this researcher sought a group large enough to accommodate both the pilot participants in addition to the Delphi Panel participants. Ziglio (1996) found that good results were documented with expert panels of 10 to 15 participants. Therefore, to accommodate published recommendations for the panel size and to include adequate panelists for the Pilot Study, this researcher sought a group with at least 20 participants but no more than 25. The study was begun with 24 participants.

In addition to the asynchronous nature of the communication, another property of the Delphi communication is the anonymous nature in which the surveys are completed. One of the signature benefits of this approach is that it allows the participants to register opinions without the biases that can be so common in face-to-face communication (Turoff & Hiltz, 1996). While some Delphi studies have been administered under strict anonymity, that approach in some studies has been replaced by quasi-anonymity. The term "quasi-anonymity" has been used to designate the arrangement in which the identity of the participants are known to the researcher and the participants may know the identities of others who are engaged in the study; but, the participant responses remain anonymous (Rauch, 1979). The Delphi Study undertaken for this dissertation employed quasi-anonymity.

Three members of the pool were selected to participate in the Pilot Study to refine the original survey instrument. The original survey questions were drawn from an extensive literature review. That survey was distributed to the pilot group of reviewers to provide feedback on the instrument based on their experience as distance education educators and directors. The pilot panelists refined the wording of several survey questions, added questions to reflect areas of interest in the current distance education environment, and provided feedback on the ease of use of the proposed survey tool. The final approved revision to that survey was used as the Round One survey instrument for 21 panelists. The participants of the pilot study did not participate in the final study.

Response Rate

Twenty-four participants signed consent forms. Three experts signed consent forms to participate on the Pilot Panel (Appendix B) and the remaining twenty-one participants signed the consent form for the Delphi Panel participation (Appendix C). While the two forms were very similar and both were approved by the Texas A&M University IRB Board, the participation details were slightly different, so a different form was developed for the members of the different panels. The Pilot panel information and preliminary survey for review can be viewed in Appendix D and E, respectively.

After the first survey and instructions were distributed to the twenty-one Delphi panelists, one participant chose to provide written comments instead of engaging in the survey rounds and sixteen of the participants returned completed surveys. Four of the participants chose not continue with the study, those responding indicated unanticipated work demands or deciding, upon reflection of the survey questions, not to be a proper

match for the study. The sixteen Delphi Panelists who did submit the First Round survey completed all three rounds. This researcher appreciates the contributions of all the panelists for their interest in the topic and for participating in the effort to the extent their personal circumstances permitted. The panelists, who granted permission, are acknowledged in Appendix A.

Data Collection Procedures

The Delphi Study was implemented as a series of surveys in Microsoft Word format that were emailed to the participants to be completed as their time permitted. The participants were encouraged to save each session's work to the Word document on their hard drive.

The final response sets were submitted by email to this researcher. While hard copy survey instruments and postal mail submission was offered, none of the participants chose to submit surveys by those means.

The refined survey was comprised of 73 questions in 9 survey areas. Assessments for both the present time and future (5 – 10 years in the future) expectations were sought. Therefore, the first survey presented 146 items for study. The Round One Instruction document and survey appear in Appendices F and G, respectively.

To facilitate the ease of valid survey responses, the survey was provided in Microsoft Word format and included a response dropdown with the ranking scale as selectable rankings from "No Judgment" through the four Likert-type scale options for each 146 survey item assessments. The Pilot Panel favored this approach and there were no communicated questions or concerns about its use by the Delphi Panel.

The participants were requested to rank each item as either "No Judgment" or to provide one of the four assessments. The Likert-type scale ranks employed in all the surveys with their accompanying values are listed below:

1 **Unimportant** and should not be included

2 **Helpful** but not very important

3 **Important** but not essential

4 **Very Important**

An example of the dropdown appears in Figure 1.

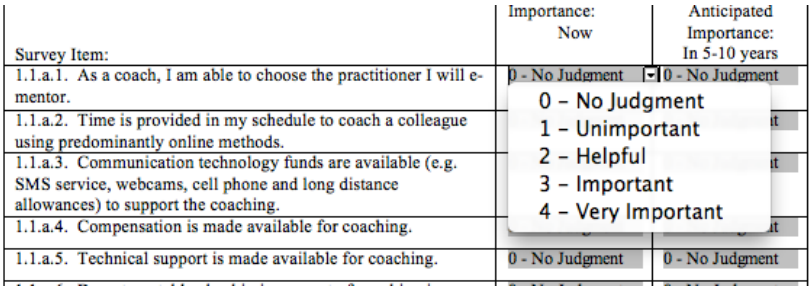

Figure 1. Response Selection Dropdown Object

The Round One survey and instruction document was distributed to 21 panelists, all of whom had provided signed Texas A&M University IRB-approved consent forms. Sixteen participants returned the survey, one panelist withdrew but provided narrative comments, and four other panelists were unable to participate due to unanticipated conflicts or felt, on reflection on the survey, that they were not appropriate candidates to complete the exercise.

In addition to the defined responses, the participants in the first round were invited to refine the wording of the survey and offer survey topics of importance to the subject. As result of the first round survey, 12 questions were added to the existing survey areas, 8 questions were added as a new survey topic, and two questions were refined. The Round Two instruction document and the survey appear in Appendices H and I, respectively.

In subsequent rounds, an additional entry of "No Change" was also included, as shown in Figure 2.

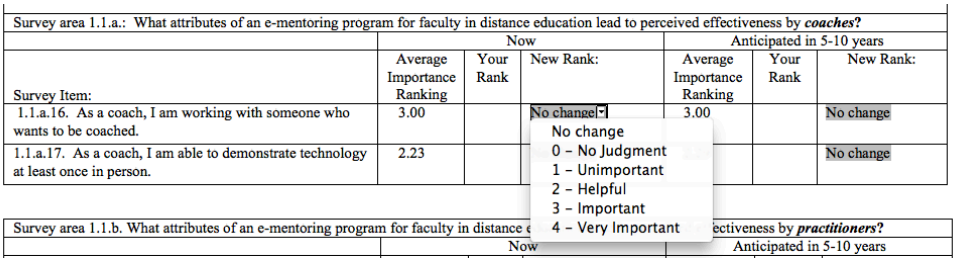

Figure 2. Response Selection Dropdown Object with "No Change" Option

This researcher requested that each round be returned within two weeks of receiving it. However, many of the participants experienced time crunches along the way and requested additional time to complete certain rounds. This researcher is very grateful for the contribution of her panelists and fully appreciated the effort, especially in the earliest rounds, that was required to rank the initial survey items.

Chronologically, the IRB approval process took from August 27, 2012 until November 15, 2012. Once approved, this researcher began the process to acquire the

IRB-approved consents for the Delphi panel. The Pilot Panelists were contacted first. With consents processed, the Pilot period ran from December 9, 2012 to January 2013. However, the holiday and start of classes inhibited the return of many of the consent forms. Therefore, the first survey was not distributed until March 3, 2013 in order to commit enough panelists to begin the study. The Second Round was distributed on April 7, 2013. The Third Round was distributed on June 30th.

As a result of the analysis of the first round comments from the panelists, a total of 20 questions were added to the survey instrument for Round Two. Since each of these questions was posited for assessment in both the current time and in 5-10 years hence, the Second Round surveyed a total of 186 items.

As a result of the analysis of the second round, consensus was achieved for all but twenty survey questions. Therefore, the Round Three survey contained only the remaining 40 items that had not reached consensus.

Consensus for the Delphi Study

The Delphi technique has been demonstrated to successfully employ different group consensus building methods, from face-to-face communication to anonymous interaction at a distance.

Determining consensus is critical to determining the number of rounds necessary for the Delphi Study. The existing literature on consensus calculations offer many approaches (Keeney, Hasson, & McKenna, 2006). This researcher followed the work done by Scheibe, Skutsch, and Schofer (2002), who have been referenced by other researchers (Hsu & Sandford, 2007). The published research of Scheibe, et al.

recommended the use of a 15% stability measure as a consensus criteria (2002, p. 273). Based on their research, Akins (2004) concluded that on a four-point Likert scale ranging from 1 to 4, the use of a 15% stability factor meant that a difference of 0.6 between means of successive rounds represented a 15% change, since .15 of 4 equals 0.6. Consistent with previously published research, this study adopted the 15% stability measure as a difference of 0.6 or less between rounds as an indication of consensus.

The Second Round demonstrated consensus for all but 20 of the items, which were returned to the Delphi Panel in an abbreviated survey instrument. The Round Three survey contained only the items lacking consensus from the previous round.

Data Analysis

While the Delphi Method is listed as a qualitative research method, descriptive statistical analysis of the survey responses was used to determine a consensus. Consensus in the Delphi study was based on Likert-type scale survey responses. The IBM® SPSS® Statistics Premium GradPack 21 computer statistical software for Mac with the Custom Tables extended functionality was used to determine statistics of central tendency, frequency, and mean on these data. This Delphi study used the statistical analysis to determine consensus. Given the small sample size, a non-parametric statistical technique was used to analyze the data. Wilcoxon tests were run to compare the participants' rankings of the survey items between the current and future perspectives.

Setting and Environment

The participants were chosen from faculty teaching in distance education programs. The population was open to both experienced distance education faculty as well as those new to teaching online. In addition to including a wide base of experience in online teaching, this study included a wide array of institutions: a tier one research university, an emerging research university, campuses of a state university system, a four year college, and a community college in the state of Texas.

Bias and Errors

Some of the biases that can be introduced into a consensus-building effort are survey fatigue and opinion domination by strong antagonists in face-to-face interactions. These issues were mediated by the survey being provided in electronic format, so that the participants could respond at their convenience, even saving the results of short sessions for submission at later date. The digital survey provided a support for the quasi-anonymity of the interaction, which itself served to mitigate opinion domination antagonism.

However, some of the limitation of the study rests in the small sample size, restricting the sample pool to Texas institutions, and the mixing of tenure and non-tenure track educators in the study.

Validity

Kerlinger (1986) advocated that the researcher deliver a report that is accurate and documented well enough so the readers can make their own determinations as to the validity and value of the research (p. 645). From a qualitative perspective, Merriam

(2009) stated that for any research to have an effect on practice or theory, the study must be "rigorously conducted" and other researchers must have "confidence in the conduct of the investigation and in the results of a particular study" (p. 210). Merriam quoted Lincoln and Guba in relating "Credibility, transferability, dependability, and confirmability" as substitutes for "internal validity, external validity, reliability, and objectivity" (as cited in Merriam, 2009, p. 211).

A pre-eminent consideration in this regard to credibility was the selection criteria for the Delphi panel. As such, selecting faculty from a range of institutions representative of the Texas education system was important.

The results of this study have been documented fully in order to allow future readers to determine the appropriate transferability of the information to their situation.

Researcher logs were maintained to record decisions made to include or exclude certain areas for consensus so that the final dissertation can provide those contexts as part of the discussion of the data. In that manner, future researchers will be able to rely upon the findings, within the limitation of the study, to extend research and to be able to confirm the results of this study.

Trustworthiness

The researcher has made every effort to faithfully document the study and attests only to conclusions that are supported by the data, with the goal that all results are accurate to the context and limitation established.

Reliability

The Delphi Method employed multiple rounds of surveys. After each round, the participants verified the results of the previous round. This ongoing review and verification of the data is considered critical to the reliability of the results (Skulmoski, et al., 2007).

Human Subjects Consideration

This research project was approved by Texas A&M University's Division of Research Institutional Review Board and was assigned the protocol number 2012-0565. As a student researcher, I am bound by the United States federal guidelines and The University's policies to protect the human subjects participating in my research. The participants in this study were provided information regarding the study through an IRB-approved information and consent form, which outlined the participant's expected contributions to this study and answered questions regarding the minimal risks associated with the participation. While this study engaged human subjects' participation via digital survey to include their subject matter expertise, there were no special classifications of subjects included in this study.

Summary

Kerlinger (1986) claimed that the main purpose of the research design was to answer research questions and that the main function of the research design was to minimize error and control for the effects of extraneous variables. Merriam (2009) advocated for rigor in research so that others may have confidence in the results. This research design utilized the Delphi Method to determine consensus for policies and

practices in connection with e-mentoring. This study leveraged key aspects of virtual communities of practice, as operationalized by Velez (2010), to frame the protocol questions covering areas of preparation, collegiality, and professional development to support scaling (Coburn, 2003). It is with the tenets of Kerlinger (1986) and Bierema and Merriam (2002) as guiding principles that the methodology for pursuing the data for this study was undertaken.

Conclusion

While distance education is growing, research into the policies and practices to successfully scale those operations remain under-investigated. This study sought to investigate the use of e-mentoring as an infrastructure mechanism for faculty engaged in the delivery of higher education to support scaling distance education programs.

CHAPTER IV

ANALYSIS AND PRESENTATION OF FINDINGS

Introduction

The Delphi technique has many strengths, one of which is its usefulness in tapping the combined judgment of a group of experts to build consensus regarding an incomplete state of knowledge (Powell, 2002). This chapter describes the methodology used for this dissertation study.

Description of Delphi Panel

This dissertation study included feedback from twenty participants, three in the Pilot Panel and seventeen participating in the Delphi Panel. One of the seventeen participants submitted a narrative response, which was incorporated into the refinement of the survey for Round Two. The descriptive statistics used for the determination of consensus were based on the survey responses provided by the sixteen participants who completed all three rounds.

The pool of participants was purposefully selected because of their expertise in teaching online courses for higher education. All were actively engaged in delivering online distance education in the state of Texas during their participation in the study. The average number of years of teaching experience represented on the panel was 18 years. However, length of teaching experience ranged from 8 to 35 years. The average length of online teaching experience was 9 years, with a range of 2 to 25 years. Fifteen of the participants had a doctoral degree, one had completed an LLM, and four had

obtained a Master's degree. Thirteen of the participants were women and seven were men. The age distribution is depicted in the bar graph shown in Figure 3.

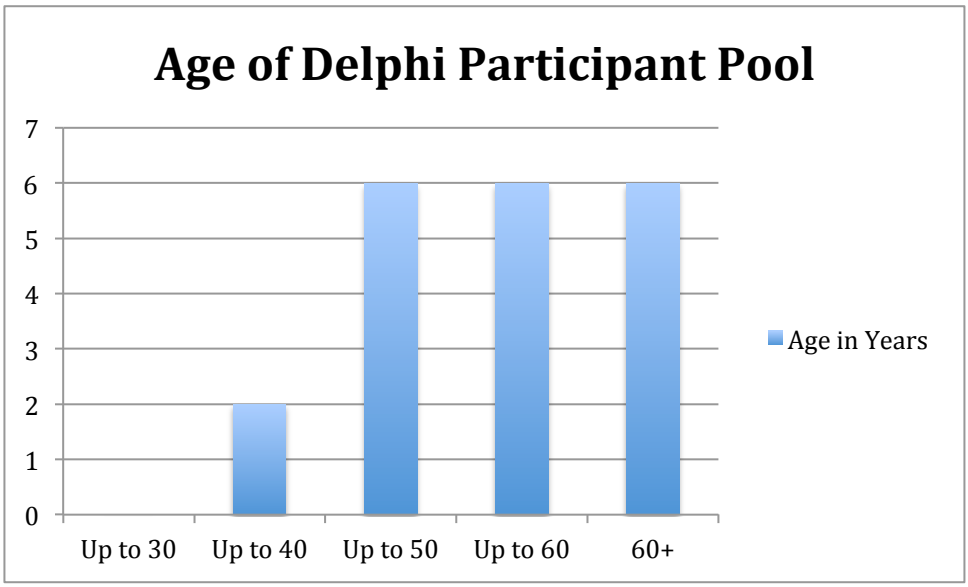

Figure 3. Age Distribution of the Delphi Participant Pool

Description of the Rounds

This Delphi Method sought to derive the consensus of expert opinion of distance education faculty to determine the most effective ways to use e-mentoring to support preparation, collegiality, and professional development as a mechanism to successfully scale distance education programs. This was done through iterative rounds of questions. The survey instrument grouped survey items into categories based on the research questions motivating the study. The initial questions were reviewed and refined by a Pilot Panel. The First Round survey questionnaire submitted to the Delphi panel

consisted of 146 items. A copy of the Round One instructions and survey are provided in Appendix F and Appendix G, respectively.

In addition to ranking the survey questions provided in the Round One survey, the Delphi Panel participants were invited to suggest additional questions and topics germane to the study that would enrich the conclusions. As a result of feedback from the Delphi Participants, 20 questions were added to the survey instrument and the wording of two of the questions was refined. The researcher grouped the panelists' suggestions. Several fit well within the categories already provided in the survey. However, many of the Delphi panelists provided comments indicating that an area of discussion regarding department culture had been overlooked in the original survey. As a result of the panelists' input, a new category was added to the survey. A total of 8 questions were added to the survey to address that topic. Therefore, the Round Two survey included 186 items for participant ranking.

Analysis at the end of Round Two demonstrated that all but 20 of the survey questions (in both Current and Future perspectives), for a total 40 items, had reached consensus. Therefore, for Round Three, an abbreviated survey tool, which included only those questions that had not yet achieved consensus, was emailed to the Delphi Panel. Therefore, there were only 40 items to be ranked in Round Three.

The analysis of the Round Three survey responses demonstrated that the remaining 40 items had reached consensus according to the goal set for this study.

Interpretation of Results

This Delphi Study used descriptive statistical analysis to determine consensus. This approach is well documented in the literature and has been described and referenced in the Methodology section of this dissertation. As a mechanism to aid in the interpretation of the consensus means generated by this study, this researcher utilized a range previously published by Pchenitchnaia, which employed a 4-point Likert scale (2007, p. 107). Those ranges were used to classify the essentiality results generated by this Delphi Study, are listed in Table 1, and appear in summarized form on the data tables in this chapter as a convenience to the reader.

Table 1. Consensus Mean Interpretation Ranges

Consensus Mean	**Interpretation**
3.5 – 4.0	Very important
2.50 – 3.49	Important but not essential
1.50 – 2.49	Helpful but not very important
1.00 – 1.49	Unimportant and should not be included

Research Question One

The survey grouped the questions for the panelists into categories based on the research questions motivating the study. The research questions sought to determine the most effective ways to use e-mentoring to support preparation, collegiality, and professional development as a mechanism to successfully scale distance education programs.

The first research question to be considered was: What attributes of an e-mentoring program for faculty engaged in teaching distance education classes lead to perceived effectiveness by coaches and practitioners? This research question was addressed in Round One by two survey areas:

- Survey area 1.1.a: What attributes of an e-mentoring program for faculty in distance education lead to perceived effectiveness by ***coaches*****?**
- Survey area 1.1.b: What attributes of an e-mentoring program for faculty in distance education lead to perceived effectiveness by ***practitioners*****?**

The Pilot Panel suggested that the difference in perceptions between the coaches and the practitioners should be evaluated separately. As a consequence, these questions were addressed in the survey from the perspective of the coach and also from the perspective of the practitioner.

As recommended in the literature, the Delphi participants were given the option of a "No Judgment" rank (Turoff, et al., 2002). Consistent with other published Delphi findings, "No Judgment" responses were not included in the calculations for the Mean and Standard Deviation (Robinson, 1991). Throughout this dissertation, all the consensus means of the Delphi Panel were reviewed. However, the numbers of non-"No Judgment" replies, *n*, are included in all the .s. Table 2 lists the survey questions provided to the Delphi panel for Round One to address survey area 1.1.a.

Table 2. Round One, Survey Questions in Area 1.1.a: Perceived Effectiveness by Coaches

Item Number	Survey Item
1.1.a.1	As a coach, I am able to choose the practitioner I will e-mentor.
1.1.a.2	Time is provided in my schedule to coach a colleague using predominantly online methods.
1.1.a.3	Communication technology funds are available (e.g. SMS service, webcams, cell phone and long distance allowances) to support the coaching.
1.1.a.4	Compensation is made available for coaching.
1.1.a.5	Technical support is made available for coaching.
1.1.a.6	Departmental leadership in support of coaching is evident.
1.1.a.7	The coach evaluates the progress of a practitioner's e-mentoring efforts.
1.1.a.8	If the coach evaluates e-mentoring efforts, the results are reported to the department administration.
1.1.a.9	If the coach evaluates e-mentoring efforts, the results are reported *only* to the participating practitioner.
1.1.a.11	Multiple technology channels (e.g. SMS, webcam, cell phone) are available to faculty to support online coaching.
1.1.a.12	A member of the department administration has responsibility for the success of the e-mentoring program.
1.1.a.13	A member of the faculty has responsibility for the success of the e-mentoring program.
1.1.a.14	A minimum duration to provide *coaching* is established.
1.1.a.15	The minimum duration to provide coaching is a semester.

The panelists were asked to rank these statements in importance in the current environment and again from perceived importance in 5 to 10 years. Consistently, throughout this dissertation, those two contexts will be referred to as "Now" (or "Current") and "Future," respectively.

The essentiality of the second survey area was ranked from the perspective of the practitioner being coached. Table 3 lists the survey questions provided to the Delphi panel for Round One to address survey area 1.1.b.

Table 3. Round One, Survey Questions in Area 1.1.b: Perceived Effectiveness by Practitioners

Item Number	Survey Item
1.1.b.1	As a practitioner participating in an e-mentoring relationship, I am able to choose my e-mentoring coach.
1.1.b.2	Time is provided in my schedule to participate with my coach in e-mentoring sessions.
1.1.b.3	Communication technology funds are available (e.g. SMS service, webcams, cell phone and long distance allowances) to use to participate in e-mentoring sessions.
1.1.b.4	Compensation is made available for participation in e-mentoring sessions.
1.1.b.5	Technical support is made available to support the participant in an e-mentoring session.
1.1.b.6	Departmental leadership in support of e-mentoring participation is evident.
1.1.b.7	The practitioner evaluates the effectiveness of a coach's e-mentoring efforts.
1.1.b.8	If e-mentoring efforts are evaluated by the practitioner, the results are reported the department administration.
1.1.b.9	If the participating practitioner evaluates e-mentoring efforts, the results are reported only to the practitioner's coach.
1.1.b.10	If the practitioner evaluates e-mentoring efforts, a standardized rubric will be employed.
1.1.b.11	There should be multiple technology channels (e.g. SMS, webcam, cell phone) available to faculty to support practitioner participation during e-mentoring.
1.1.b.12	A member of the department administration has responsibility for the success of the e-mentoring program.
1.1.b.13	A member of the faculty has responsibility for the success of the e-mentoring program.
1.1.b.14	A minimum *duration for the practitioner to participate* in coaching is established.
1.1.b.15	The minimum duration for the practitioner to participate in a coaching period is a semester.

The Delphi panelists were asked to also provide their expert opinion as to the essentiality of each of those statements in 5 to 10 years hence.

In addition to ranking the questions on the survey that originated from the literature review and Pilot Panel, the Delphi participants were asked to provide narrative comments and suggest additional items to explore related to the study underway. As a result of the panel feedback, the survey for Round Two was modified to include 20 new survey items, 13 of which related to the Research Question One. The five new questions added to Survey area 1.1.a and 1.1.b appear in Table 4.

Table 4. Round Two, New Survey Items for Areas 1.1.a and 1.1.b

Item Number	Survey Item
1.1.a.16	As a coach, I am working with someone who wants to be coached.
1.1.a.17	As a coach, I am able to demonstrate technology at least once in person.
1.1.b.16	Being coached will positively impact decisions regarding my tenure and promotion.
1.1.b.17	As a practitioner, I am able to see a demonstration of the technology in person at least once.
1.1.b.18	As a practitioner, I am able to view examples from a cohort of practitioners.

Of those 13 survey items, the other 8 items related to a topic not previously covered on the survey. Due to the overwhelming interest in that topic amongst panelists, a third section was added to the survey to incorporate suggested survey items related to that topic. The new section was titled: Survey area 1.1.c. What department attributes would lead to an effective e-mentoring program for faculty in distance education? The new survey items for that topic appear in Table 5.

Table 5. Round Two, New Survey Items for Area 1.1.c

Item Number	Survey Item
1.1.c.1	The department administration is trained in how to deliver an effective e-mentoring program.
1.1.c.2	The department provides training and resources (books, articles, online forums) on how to be an effective coach.
1.1.c.3	The department values online teaching in tenure and promotion decisions.
1.1.c.4	The culture of faculty and administration within the department values distance education.
1.1.c.5	The department offers training on topics such as content delivery, teaching modalities, and online instructional strategies.
1.1.c.6	The department values mentorship (in person and by technology).
1.1.c.7	Coaches should be required to train on the interactive technologies they must utilize in coaching and teaching online before they mentor online.
1.1.c.8	The department provides a clear rationale for the coach/practitioner relationship (why this mentor was chosen/what the mentored person can expect from the being coached).

A complete copy of the Round Two instructions to the participants and the survey as distributed to the Delphi Panel appears in Appendix H and Appendix I, respectively.

Analysis of Round Two results showed that the original survey items in Survey 1.1.1 and 1.1.b had reached consensus. Therefore, the Round Three survey instrument included only the questions that had not reached consensus. Detailed discussions of consensus values for each survey area are presented later in this chapter. A complete copy of the Round Three instructions and survey as distributed to the Delphi Panel appears in Appendix J and Appendix K. The original and consensus means and standard deviations for all the items related to Survey Area 1.1.a (Now) appear in Table 6.

Based on the consensus means, none of the survey questions in area 1.1.a were found to be Very Important at the current time, "Now," and none of the items in this group were considered Unimportant. The majority of the items in this category were considered to be Important, but not Very Important. Highest ranked items in the "Important" category were providing time, channels, funds, and leadership in the department for an e-mentoring program. It was considered Important that a member of the administration be responsible for the success of the e-mentoring program. Based on relative means, it was more important to the group to have good technical support and administrative leadership than it was to be compensated for participation in e-mentoring as a coach.

Table 6. Consensus Data for Research Question One, Survey Area 1.1.a (Now)

Survey area 1.1.a.: What attributes of an e-mentoring program for faculty in distance education lead to perceived effectiveness by ***coaches*****?**							
Item Number	Survey Item	Initial			Consensus		
		n	Mean	SD	*n*	Mean	SD
1.1.a.1	As a coach, I am able to choose the practitioner I will e-mentor.	14	1.93	1.072	15	1.80	1.014
1.1.a.2	Time is provided in my schedule to coach a colleague using predominantly online methods.	16	3.25	.856	16	3.25	.856
1.1.a.3	Communication technology funds are available (e.g. SMS service, webcams, cell phone and long distance allowances) to support the coaching.	15	3.20	.775	16	3.25	.683
1.1.a.4	Compensation is made available for coaching.	16	2.69	1.195	16	2.88	.957
1.1.a.5	Technical support is made available for coaching.	15	3.27	.884	16	3.31	.793
1.1.a.6	Departmental leadership in support of coaching is evident.	16	3.19	.981	16	3.31	.793
1.1.a.7	The coach evaluates the progress of a practitioner's e-mentoring efforts.	16	2.69	1.014	16	2.69	.873
1.1.a.8	If the coach evaluates e-mentoring efforts, the results are reported to the department administration.	14	1.93	1.141	16	1.88	1.088
1.1.a.9	If the coach evaluates e-mentoring efforts, the results are reported *only* to the participating practitioner.	13	2.46	1.266	15	2.20	1.014
1.1.a.10	If the coach evaluates e-mentoring efforts, a standardized rubric will be employed.	15	2.87	.990	16	2.88	.806
1.1.a.11	Multiple technology channels (e.g. SMS, webcam, cell phone) are available to faculty to support online coaching.	15	2.93	.961	16	3.06	.772
1.1.a.12	A member of the department administration has responsibility for the success of the e-mentoring program.	15	2.53	1.246	15	2.73	1.100
1.1.a.13	A member of the faculty has responsibility for the success of the e-mentoring program.	15	2.40	1.183	15	2.47	1.125
1.1.a.14	A minimum duration to provide *coaching* is established.	15	2.40	1.242	16	2.50	.966
1.1.a.15	The minimum duration to provide coaching is a semester.	13	2.15	1.144	14	2.14	1.099
1.1.a.16	As a coach, I am working with someone who wants to be coached.	13	3.00	0.707	15	3.27	0.704
1.1.a.17	As a coach, I am able to demonstrate technology at least once in person.	13	2.23	0.927	14	2.29	0.825
Mean: 3.5 – 4.0 Very Important, 2.5 – 3.49 Important, 1.50 – 2.49 Helpful, 1.00 – 1.49 Unimportant							

Less highly ranked, and considered to be Helpful, was that a minimum duration be established for coaching. The group considered it Helpful that the minimum period established be set at a semester.

The original versus consensus means are displayed as a bar chart shown in Figure 4.

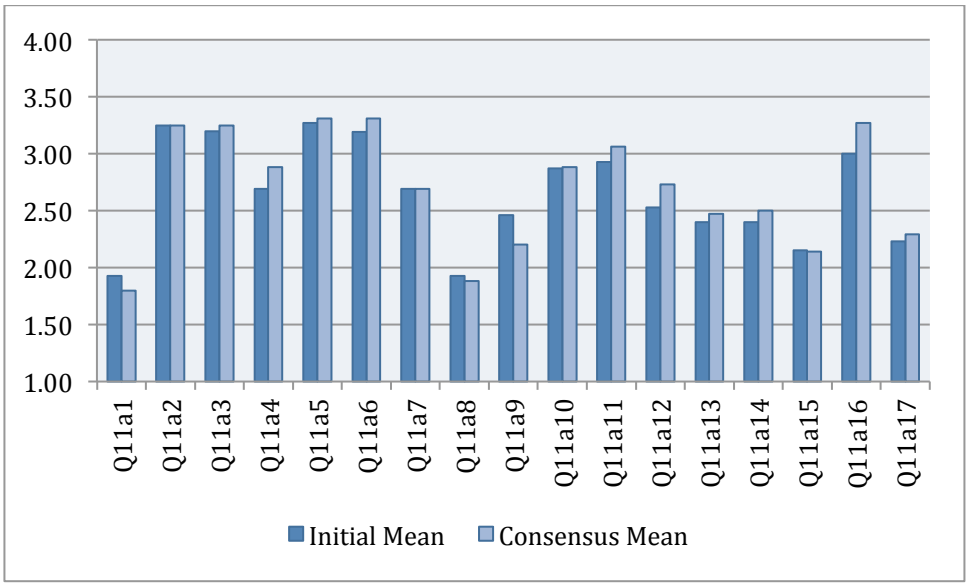

Figure 4. The Original Versus Consensus Means for Survey Area 1.1.a (Now)

The Delphi panel was asked to evaluate the same statements from the perspective of five to ten years into the future to determine if the experts expected any change in essentiality in the future. The original and consensus means and standard deviations for all the items related to Survey Area 1.1.a (Future) appear in Table 7.

Table 7. Consensus Data for Research Question One, Survey Area 1.1.a (Future)

Survey area 1.1.a.: What attributes of an e-mentoring program for faculty in distance education lead to perceived effectiveness by ***coaches*****?**							
Item Number	Survey Item	Initial			Consensus		
		n	Mean	SD	*n*	Mean	SD
1.1.a.1	As a coach, I am able to choose the practitioner I will e-mentor.	13	1.85	.987	15	1.87	.915
1.1.a.2	Time is provided in my schedule to coach a colleague using predominantly online methods.	16	3.19	.750	16	3.19	.750
1.1.a.3	Communication technology funds are available (e.g. SMS service, webcams, cell phone and long distance allowances) to support the coaching.	15	3.20	.941	16	3.25	.775
1.1.a.4	Compensation is made available for coaching.	15	2.80	1.146	16	2.88	.957
1.1.a.5	Technical support is made available for coaching.	14	3.43	.646	16	3.31	.704
1.1.a.6	Departmental leadership in support of coaching is evident.	16	3.31	.704	16	3.31	.704
1.1.a.7	The coach evaluates the progress of a practitioner's e-mentoring efforts.	15	2.53	.990	16	2.56	.814
1.1.a.8	If the coach evaluates e-mentoring efforts, the results are reported to the department administration.	14	1.93	.997	16	2.00	.966
1.1.a.9	If the coach evaluates e-mentoring efforts, the results are reported *only* to the participating practitioner.	13	2.38	1.261	15	2.20	1.014
1.1.a.10	If the coach evaluates e-mentoring efforts, a standardized rubric will be employed.	14	2.79	1.051	15	2.80	.862
1.1.a.11	Multiple technology channels (e.g. SMS, webcam, cell phone) are available to faculty to support online coaching.	15	2.93	.884	16	3.06	.680
1.1.a.12	A member of the department administration has responsibility for the success of the e-mentoring program.	16	2.56	1.209	16	2.69	1.078
1.1.a.13	A member of the faculty has responsibility for the success of the e-mentoring program.	16	2.44	1.153	16	2.50	1.095
1.1.a.14	A minimum duration to provide *coaching* is established.	15	2.47	1.125	16	2.56	.814
1.1.a.15	The minimum duration to provide coaching is a semester.	13	2.23	1.235	14	2.29	1.204
1.1.a.16	As a coach, I am working with someone who wants to be coached.	14	3	0.784	15	2.8	0.775
1.1.a.17	As a coach, I am able to demonstrate technology at least once in person.	14	2.29	0.994	14	2.07	0.829
Mean: 3.5 – 4.0 Very Important, 2.5 – 3.49 Important, 1.50 – 2.49 Helpful, 1.00 – 1.49 Unimportant							

The experts predicted that there would be no change in the essentiality for six of the seventeen items. The following items had the same consensus means for both the essentiality "Now" versus that of the "Future":

- 1.1.a.3, *Communication technology funds are available (e.g. SMS service, webcams, cell phone and long distance allowances) to support the coaching.*
- 1.1.a.4, *Compensation is made available for coaching.*
- 1.1.a.5, *Technical support is made available for coaching.*
- 1.1.a.6, *Departmental leadership in support of coaching is evident.*
- 1.1.a.9, *If the coach evaluates e-mentoring efforts, the results are reported only to the participating practitioner.*
- 1.1.a.11, *Multiple technology channels (e.g. SMS, webcam, cell phone) are available to faculty to support online coaching.*

All of these items were ranked as Important.

The experts returned a change in consensus means in eleven of the seventeen items evaluated. Only one of the means changed enough to move the item to a different essentiality category. Item 1.1.a.13, *A member of the faculty has responsibility for the success of the e-mentoring program*, increased its consensus mean from Helpful (Consensus mean of 2.47) to Important (Consensus mean of 2.50) in the "Future."

For four other survey items the panel returned a higher essentiality consensus mean for the Future context. One of those items, 1.1.a.14: *A minimum duration to provide coaching is established*, was ranked in the Important category, but its mean was somewhat higher (Consensus mean of 2.50 "Now" as compared with a consensus mean of 2.56 "Future"). The three other items remained ranked in the Helpful category. Item 1.1.a.1, *As a coach, I am able to choose the practitioner I will e-mentor,* moved from a consensus mean of 1.80 "Now" to 1.87 in the "Future." Item 1.1.a.8, *If the coach evaluates the progress of a practitioner's e-mentoring efforts, the results are reported to*

the department administration, moved from a consensus mean of 1.88 "Now" to a consensus mean of 2.00 for the "Future." Item 1.1.a.15, *The minimum duration to provide coaching is a semester,* increased from a consensus mean of 2.14 "Now" to a consensus mean of 2.29 for the "Future."

The consensus means of six of the survey items decreased in essentiality when the means for "Now" were compared to those of "Future" expectations:

- 1.1.a.2, *Time is provided in my schedule to coach a colleague using predominantly online methods.*
- 1.1.a.7, *The coach evaluates the progress of a practitioner's e-mentoring efforts.*
- 1.1.a.10, *If the coach evaluates e-mentoring efforts, a standardized rubric will be employed.*
- 1.1.a.12, *A member of the department* administration has responsibility for the success of the e-mentoring program.
- 1.1.a.16, *As a coach, I am working with someone who wants to be coached.*
- 1.1.a.17, *As a coach, I am able to demonstrate technology at least once in person.*

The original versus consensus means for Survey Area 1.1.a (Future) are displayed as a bar chart shown in Figure 5.

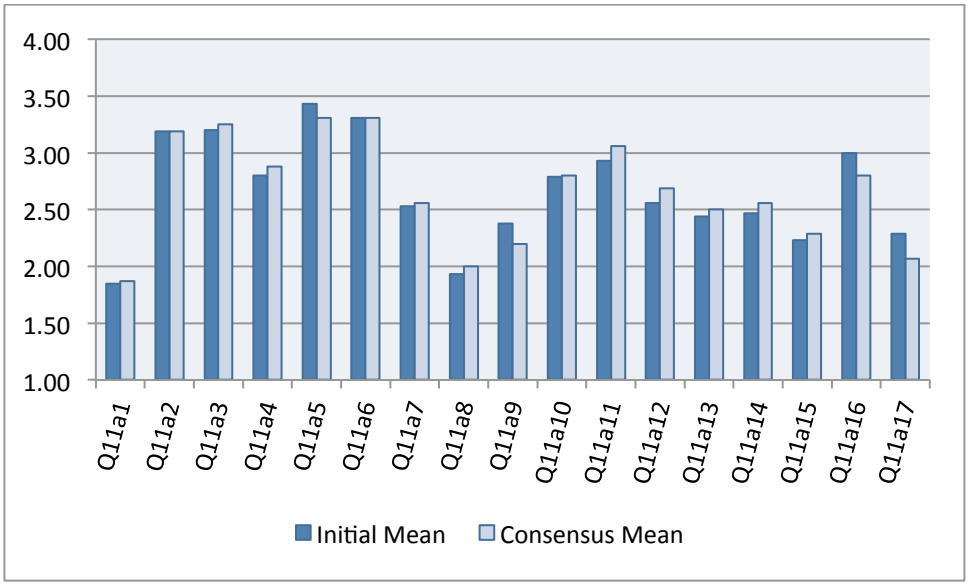

Figure 5. The Original Versus Consensus Means for Survey Area 1.1.a (Future)

While there was some change in the means for Survey Area 1.1.a, a nonparametric Related-Samples Wilcoxon Signed Rank Test was run on the means for the "Now" findings versus the "Future" means. A null hypothesis that the median of differences between Means (Future) and Means (Now) is equal to zero was adopted. The Wilcoxon was not statistically significant, as $p = .649$ with a specified alpha level of 0.05. Therefore, the null hypothesis is retained. The SPSS Hypothesis Test Summary appears in Appendix M.

The consensus means, displayed in the context of Now versus Future values, for all the items related to Survey Area 1.1.a appear in Figure 6.

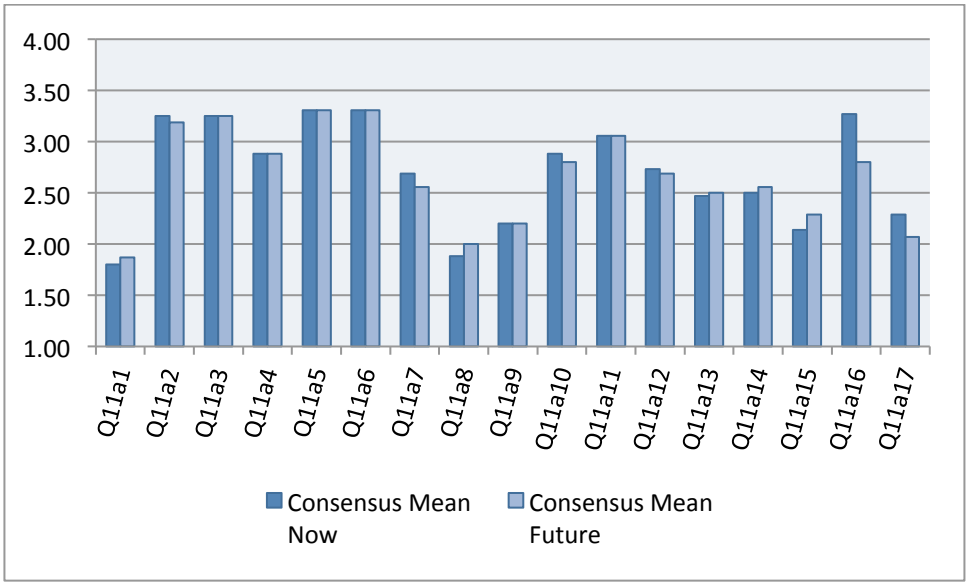

Figure 6. The Now Versus Future Consensus Means for Survey Area 1.1.a

The next survey area presented the same items as in Survey 1.1.a; however, those questions were presented from the standpoint of the practitioner rather than the coach. The original and consensus means and standard deviations for all the items related to Survey Area 1.1.b (Now) appear in Table 8.

Table 8. Consensus Data for Research Question One, Survey Area 1.1.b (Now)

Survey area 1.1.b. What attributes of an e-mentoring program for faculty in distance education lead to perceived effectiveness by ***practitioners***?							
Item Number	Survey Item	Initial			Consensus		
		n	Mean	SD	*n*	Mean	SD
1.1.b.1	As a practitioner participating in an e-mentoring relationship, I am able to choose my e-mentoring coach.	16	2.50	1.033	16	2.56	.964
1.1.b.2	Time is provided in my schedule to participate with my coach in e-mentoring sessions.	16	3.06	.998	16	3.13	.806
1.1.b.3	Communication technology funds are available (e.g. SMS service, webcams, cell phone and long distance allowances) to use to participate in e-mentoring sessions.	16	3.00	.730	16	3.19	.544
1.1.b.4	Compensation is made available for participation in e-mentoring sessions.	16	2.38	1.147	16	2.38	1.025
1.1.b.5	Technical support is made available to support the participant in an e-mentoring session.	16	3.56	.629	16	3.75	.447
1.1.b.6	Departmental leadership in support of e-mentoring participation is evident.	16	3.31	.873	16	3.50	.632
1.1.b.7	The practitioner evaluates the effectiveness of a coach's e-mentoring efforts.	15	2.67	.724	15	2.67	.724
1.1.b.8	If e-mentoring efforts are evaluated by the practitioner, the results are reported the department administration.	14	2.00	.961	15	2.13	.834
1.1.b.9	If the participating practitioner evaluates e-mentoring efforts, the results are reported only to the practitioner's coach.	14	2.43	1.284	14	2.50	1.092
1.1.b.10	If the practitioner evaluates e-mentoring efforts, a standardized rubric will be employed.	15	2.73	1.100	15	2.93	.799
1.1.b.11	There should be multiple technology channels (e.g. SMS, webcam, cell phone) available to faculty to support practitioner participation during e-mentoring.	16	2.81	.834	16	3.00	.730
1.1.b.12	A member of the department administration has responsibility for the success of the e-mentoring program.	15	2.60	1.183	15	2.80	.862
1.1.b.13	A member of the faculty has responsibility for the success of the e-mentoring program.	14	2.21	1.122	14	2.14	1.027
1.1.b.14	A minimum *duration for the practitioner to participate* in coaching is established.	15	2.53	.915	15	2.73	.884
1.1.b.15	The minimum duration for the practitioner to participate in a coaching period is a semester.	11	2.18	1.168	12	2.25	1.138
Mean: 3.5 – 4.0 Very Important, 2.5 – 3.49 Important, 1.50 – 2.49 Helpful, 1.00 – 1.49 Unimportant							

Table 8 Continued

Survey area 1.1.b. What attributes of an e-mentoring program for faculty in distance education lead to perceived effectiveness by ***practitioners*****?**							
Item Number	Survey Item	Initial			Consensus		
		n	Mean	SD	*n*	Mean	SD
1.1.b.16	Being coached will positively impact decisions regarding my tenure and promotion.	12	2.25	1.055	13	2.23	0.832
1.1.b.17	As a practitioner, I am able to see a demonstration of the technology in person at least once.	12	2.42	0.9	14	2.57	0.756
1.1.b.18	As a practitioner, I am able to view examples from a cohort of practitioners.	12	2.92	0.793	15	2.93	0.704
Mean: 3.5 – 4.0 Very Important, 2.5 – 3.49 Important, 1.50 – 2.49 Helpful, 1.00 – 1.49 Unimportant							

The highest two consensus means in this survey area were for the following items, both of which achieved consensus means in the Very Important range:

- 1.1.b.5, *Technical support is made available to support the participant in an e-mentoring session.* (*M* = 3.75)
- 1.1.b.6, *Departmental leadership in support of e-mentoring participation is evident.* (*M* = 3.50)

Eleven of the survey items in this survey area achieved consensus means in the Important range.

The three highest consensus means in this survey area were for the following items, both of which achieved consensus means at or above 3.0:

- 1.1.b.2, *Time is provided in my schedule to participate with my coach in e-mentoring sessions.* (*M* = 3.13)
- 1.1.b.3, *Communication technology funds are available (e.g. SMS service, webcams, cell phone and long distance allowances) to use to participate in e-mentoring sessions.* (*M* = 3.19)
- 1.1.b.11, *There should be multiple technology channels (e.g. SMS, webcam, cell phone) available to faculty to support practitioner participation during e-mentoring.* (*M* = 3.00)

The remaining eight items ranked in the Important range are the following, in descending order of consensus means:

- 1.1.b.10, *If the practitioner evaluates e-mentoring efforts, a standardized rubric will be employed.* (*M* = 2.93)
- 1.1.b.18, *As a practitioner, I am able to view examples from a cohort of practitioners.* (*M* = 2.93)
- 1.1.b.12, *A member of the department administration has responsibility for the success of the e-mentoring program.* (*M* = 2.80)
- 1.1.b.14, *A minimum duration for the practitioner to participate in coaching is established.* (*M* = 2.73)
- 1.1.b.7, *The practitioner evaluates the effectiveness of a coach's e-mentoring efforts.* (*M* = 2.67)
- 1.1.b.17, *As a practitioner, I am able to see a demonstration of the technology in person at least once.* (*M* = 2.57)
- 1.1.b.1, *As a practitioner participating in an e-mentoring relationship, I am able to choose my e-mentoring coach.* (*M* =2.56)
- 1.1.b.9, *If the participating practitioner evaluates e-mentoring efforts, the results are reported only to the practitioner's coach.* (*M* =2.50)

Five of the survey items in the area were considered to be Helpful: that compensation be made available for participating in an e-mentoring relationship, that the practitioner's evaluation results of the coaches' efforts be made available to the department, that a member of the faculty has responsibility for the success of the e-mentoring program, that the minimum duration for the coaching period be set at a semester, and that being coached would positively impact decisions regarding tenure and promotion.

The original versus consensus means for Survey Area 1.1.b (Now) are displayed as a bar chart shown in Figure 7.

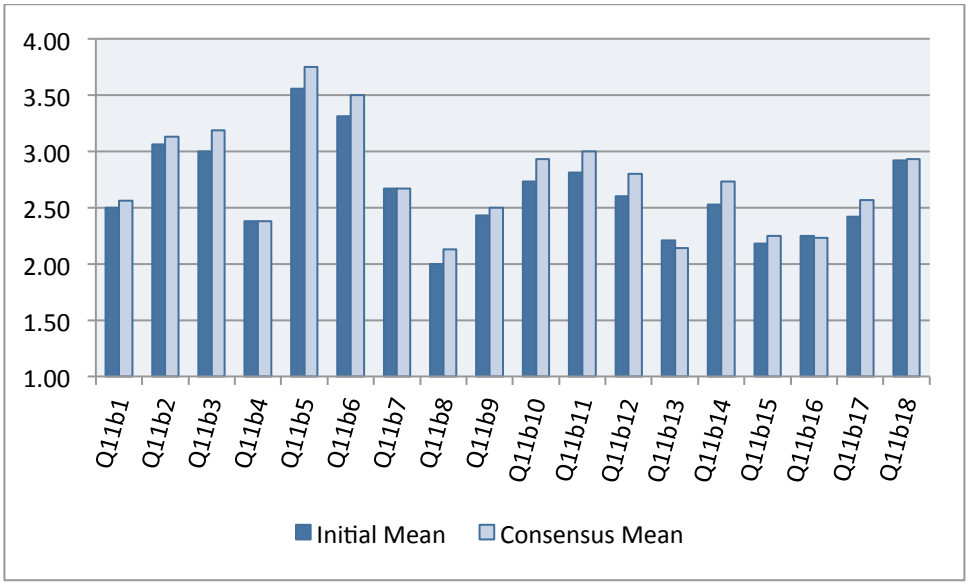

Figure 7. The Original Versus Consensus Means for Survey Area 1.1.b (Now)

These questions were also ranked for their essentiality in five to ten years hence. The original and consensus means and standard deviations for all the items related to Survey Area 1.1.b (Future) appear in Table 9.

Table 9. Consensus Data for Research Question One, Survey Area 1.1.b (Future)

Survey area 1.1.b. What attributes of an e-mentoring program for faculty in distance education lead to perceived effectiveness by ***practitioners***?							
Item Number	Survey Item	Initial			Consensus		
		n	Mean	SD	*n*	Mean	SD
1.1.b.1	As a practitioner participating in an e-mentoring relationship, I am able to choose my e-mentoring coach.	16	2.44	1.094	16	2.56	.964
1.1.b.2	Time is provided in my schedule to participate with my coach in e-mentoring sessions.	15	3.07	.799	16	3.13	.619
1.1.b.3	Communication technology funds are available (e.g. SMS service, webcams, cell phone and long distance allowances) to use to participate in e-mentoring sessions.	16	3.00	.730	16	3.13	.500
1.1.b.4	Compensation is made available for participation in e-mentoring sessions.	16	2.19	.911	16	2.31	.946
1.1.b.5	Technical support is made available to support the participant in an e-mentoring session.	16	3.44	.629	16	3.56	.512
1.1.b.6	Departmental leadership in support of e-mentoring participation is evident.	16	3.25	.856	16	3.44	.629
1.1.b.7	The practitioner evaluates the effectiveness of a coach's e-mentoring efforts.	15	2.67	.724	16	2.63	.719
1.1.b.8	If e-mentoring efforts are evaluated by the practitioner, the results are reported the department administration.	13	2.08	1.038	15	2.27	.884
1.1.b.9	If the participating practitioner evaluates e-mentoring efforts, the results are reported only to the practitioner's coach.	15	2.40	1.183	15	2.47	.990
1.1.b.10	If the practitioner evaluates e-mentoring efforts, a standardized rubric will be employed.	16	2.88	1.204	16	3.06	.854
1.1.b.11	There should be multiple technology channels (e.g. SMS, webcam, cell phone) available to faculty to support practitioner participation during e-mentoring.	16	3.00	.730	16	3.19	.544
1.1.b.12	A member of the department administration has responsibility for the success of the e-mentoring program.	16	2.63	1.147	16	2.81	.834
1.1.b.13	A member of the faculty has responsibility for the success of the e-mentoring program.	15	2.27	1.100	15	2.20	1.014
Mean: 3.5 – 4.0 Very Important, 2.5 – 3.49 Important, 1.50 – 2.49 Helpful, 1.00 – 1.49 Unimportant							

Table 9 Continued

Survey area 1.1.b. What attributes of an e-mentoring program for faculty in distance education lead to perceived effectiveness by ***practitioners*****?**							
Item Number	Survey Item	Initial			Consensus		
		n	Mean	SD	*n*	Mean	SD
1.1.b.14	A minimum *duration for the practitioner to participate* in coaching is established.	16	2.56	.892	16	2.75	.856
1.1.b.15	The minimum duration for the practitioner to participate in a coaching period is a semester.	11	2.18	1.168	13	2.23	1.092
1.1.b.16	Being coached will positively impact decisions regarding my tenure and promotion.	12	2.5	1.087	13	2.46	0.877
1.1.b.17	As a practitioner, I am able to see a demonstration of the technology in person at least once.	12	2.42	0.9	13	2.46	0.776
1.1.b.18	As a practitioner, I am able to view examples from a cohort of practitioners.	13	2.77	0.725	15	2.73	0.704
Mean: 3.5 – 4.0 Very Important, 2.5 – 3.49 Important, 1.50 – 2.49 Helpful, 1.00 – 1.49 Unimportant							

In comparing the survey means for 1.1.b (Now) to 1.1.b. (Future), the survey participants returned changes in consensus means for several of the items; and three items changed means enough to change in rank. The Delphi Panel consensus showed that one survey item's mean moved from the Very Important range to Important. Item 1.1.b.6, *Departmental leadership in support of e-mentoring participation is evident,* changed from Very Important to Important. Its consensus mean moved from $M = 3.50$ to $M = 3.44$. Two items moved from the lower range of Important to fall with in the Helpful range. Survey items 1.1.b.9, reporting evaluation results to the department administration (M = 2.47, Future) and 1.1.b.17, the practitioner being able to see a demonstration of technology in person at least once (M = 2.46, Future), were the other two items to change rank.

Ten of the survey items in this group were ranked as Important. Of those, one survey item stood out as the highest with a mean of 3.44. That item was 1.1.b.6, *Departmental leadership in support of e-mentoring participation is evident.* The other items in the Important rank ranged from $M = 2.20$ to $M = 3.19$. Those survey items appear below with their consensus means, in decreasing order of the means:

- 1.1.b.6, Departmental *leadership in support of e-mentoring participation is evident.* ($M = 3.44$)
- 1.1.b.11, There *should be multiple technology channels (e.g. SMS, webcam, cell phone) available to faculty to support practitioner participation during e-mentoring.* ($M = 3.19$)
- 1.1.b.2, *Time is provided in my schedule to participate with my coach in e-mentoring sessions.* ($M = 3.13$)
- 1.1.b.3, *Communication technology funds are available (e.g. SMS service, webcams, cell phone and long distance allowances) to use to participate in e-mentoring sessions.* ($M = 3.13$)
- 1.1.b.10, *If the practitioner evaluates e-mentoring efforts, a standardized rubric will be employed.* ($M = 3.06$)
- 1.1.b.12, *A member of the department administration has responsibility for the success of the e-mentoring program.* ($M = 2.81$)
- 1.1.b.14, *A minimum duration for the practitioner to participate in coaching is established. (*$M = 2.75$)
- 1.1.b.18, *As a practitioner, I am able to view examples from a cohort of practitioners.* ($M = 2.73$)
- 1.1.b.7, *The practitioner evaluates the effectiveness of a coach's e-mentoring efforts.* ($M = 2.63$)
- 1.1.b.1, *As a practitioner participating in an e-mentoring relationship, I am able to choose my e-mentoring coach.* ($M = 2.56$)

The remaining seven items were ranked only as Helpful. Of these items, three had a mean of 2.46 or higher, almost high enough to be considered important. Those survey areas include the following items:

- 1.1.b.9, *If the participating practitioner evaluates e-mentoring efforts, the results are reported only to the practitioner's coach.*

- 1.1.b.16, *Being coached will positively impact decisions regarding my tenure and promotion.*
- 1.1.b.17, *As a practitioner, I am able to see a demonstration of the technology in person at least once.*

The remaining survey topics having a rank of Helpful included compensation for participation in e-mentoring sessions (1.1.b.4), effectiveness of e-mentoring effort of coach reported to department administration (1.1.b.8), a member of faculty having responsibility for the success of the e-mentoring program (1.1.b.13), and that the minimum duration of the coaching period be a semester (1.1.b.15).

The original versus consensus means for Survey Area 1.1.b (Future) are displayed as a bar chart shown in Figure 8.

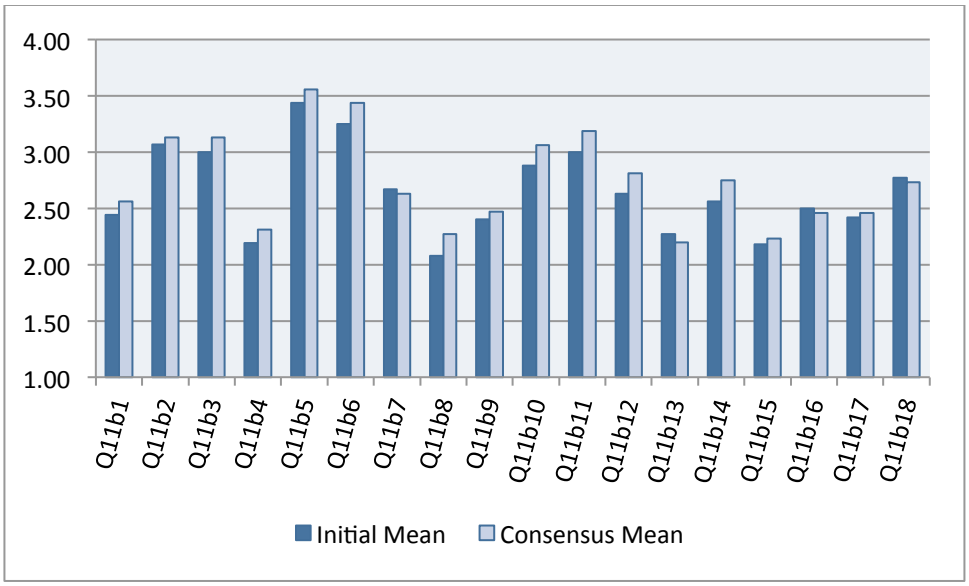

Figure 8. The Original Versus Consensus Means for Survey Area 1.1.b (Future)

While there was some change in the means for Survey Area 1.1.b, a nonparametric Related-Samples Wilcoxon Signed Rank Test was run on the means for the "Now" findings versus the "Future" means. A null hypothesis that the median of differences between Means (Future) and Means (Now) is equal to zero was adopted. The Wilcoxon was not statistically significant, as $p = .663$ with a specified alpha level of 0.05. Therefore, the null hypothesis is retained. The SPSS Hypothesis Test Summary appears in Appendix M.

The consensus means, displayed in the context of Now versus Future values, for all the items related to Survey Area 1.1.b appear in Figure 9.

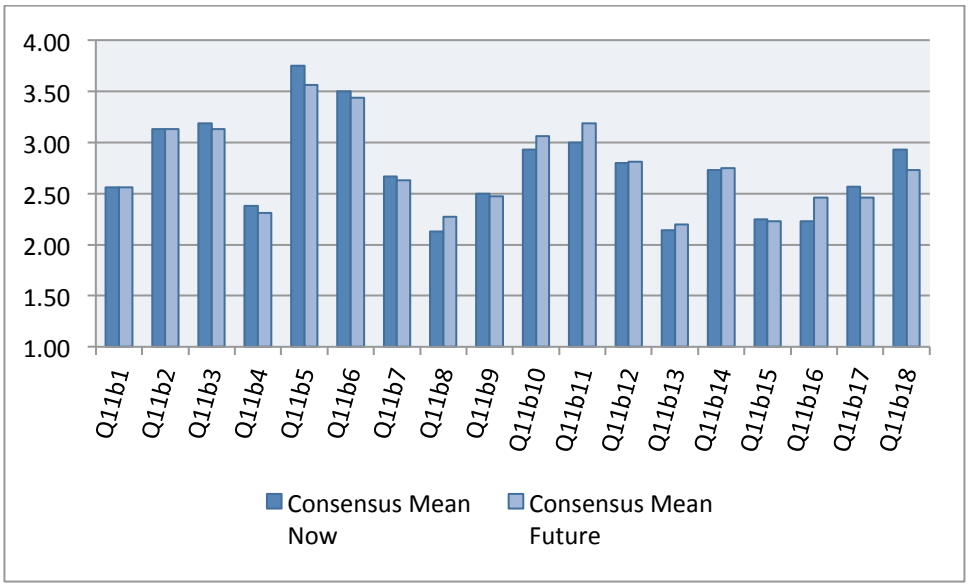

Figure 9. The Now Versus Future Consensus Means for Survey Area 1.1.b

The next survey area presented to the Delphi Panel covered topics that were introduced as a result of the responses provided by the panel participants themselves to the first round of the survey. The topics presented in this section followed a common theme and pointed to an area not covered in the original survey as a result of the literature review. When the panelists surveyed these topics, all the consensus means were in the Important and Very Important rankings. The original and consensus means and standard deviations for all the items related to Survey Area 1.1.c (Now) appear in Table 10.

Two items had consensus means ranked as Very Important. They were 1.1.c.4, *The culture of faculty and administration within the department values distance education,* and 1.1.c.5, *The department offers training on topics such as content delivery, teaching modalities, and online instructional strategies.*

Of the Important items, one survey item was very close to the top of the Important range. That item was 1.1.c.3, *The department values online teaching in tenure and promotion decisions*, which had a consensus mean of 3.44.

Table 10. Consensus Data for Research Question One, Survey Area 1.1.c (Now)

NEW: Survey area 1.1.c. What attributes of a department would lead to an effective e-mentoring program for faculty in distance education**?**							
Item Number	Survey Item	Initial			Consensus		
		n	Mean	SD	*n*	Mean	SD
1.1.c.1	The department administration is trained in how to deliver an effective e-mentoring program.	13	2.77	1.013	16	2.94	0.854
1.1.c.2	The department provides training and resources (books, articles, online forums) on how to be an effective coach.	13	3.15	0.689	16	3.25	0.577
1.1.c.3	The department values online teaching in tenure and promotion decisions.	13	3.54	0.776	16	3.44	0.727
1.1.c.4	The culture of faculty and administration within the department values distance education.	13	3.54	0.519	16	3.56	0.512
1.1.c.5	The department offers training on topics such as content delivery, teaching modalities, and online instructional strategies.	13	3.54	0.519	16	3.50	0.516
1.1.c.6	The department values mentorship (in person and by technology).	13	3.08	0.641	16	3.00	0.632
1.1.c.7	Coaches should be required to train on the interactive technologies they must utilize in coaching and teaching online before they mentor online.	13	2.85	1.068	16	2.94	0.929
1.1.c.8	The department provides a clear rationale for the coach/practitioner relationship (why this mentor was chosen/what the mentored person can expect from the being coached).	13	2.69	0.855	16	2.75	0.775
Mean: 3.5 – 4.0 Very Important, 2.5 – 3.49 Important, 1.50 – 2.49 Helpful, 1.00 – 1.49 Unimportant							

The remaining five survey items that were ranked by the panel as Important included the following topics: department administration is trained to deliver an e-mentoring program (1.1.c.1), the department provides training on effective coaching (1.1.c.2), the department values mentorship (1.1.c.6), coaches should be required to train in interactive technologies before mentoring (1.1.c.7), and the department should provide a clear rationale for the coach/practitioner relationship (1.1.c.8). The original

versus consensus means for Survey Area 1.1.c (Now) are displayed as a bar chart shown in Figure 10.

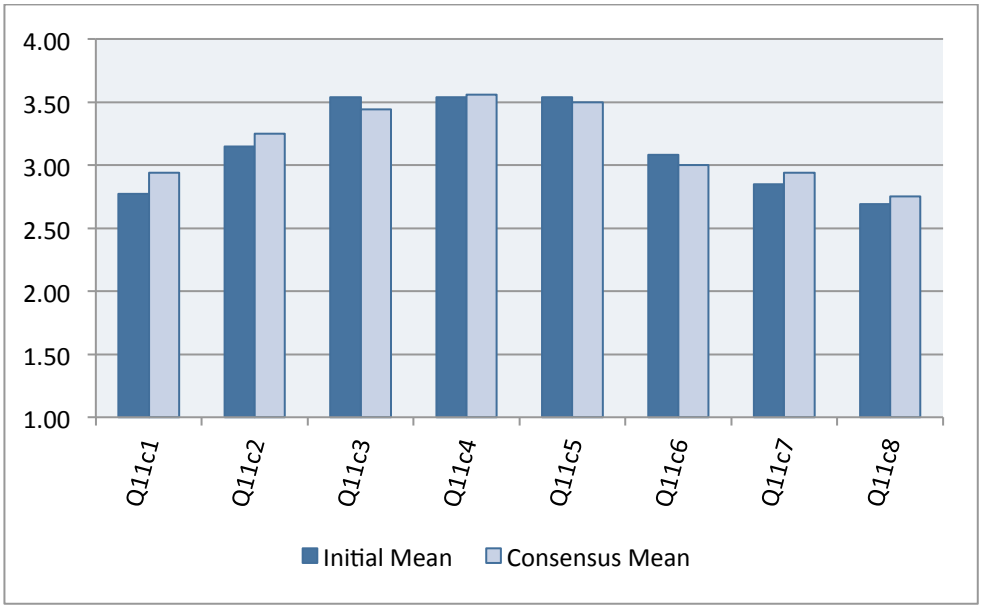

Figure 10. The Original Versus Consensus Means for Survey Area 1.1.c (Now)

The survey questions for Area 1.1.c were presented to the panel for consideration as to the essentiality of the topics in the context of five to ten years in the future. Again, all the survey items returned a consensus mean with Important or Very Important ranks. None were considered Helpful or Unimportant. The original and consensus means and standard deviations for all the items related to Survey Area 1.1.c (Future) appear in Table 11.

Table 11. Consensus Data for Research Question One, Survey Area 1.1.c (Future)

NEW: Survey area 1.1.c. What attributes of a department would lead to an effective e-mentoring program for faculty in distance education**?**							
Item Number	Survey Item	Initial			Consensus		
		n	Mean	SD	*n*	Mean	SD
1.1.c.1	The department administration is trained in how to deliver an effective e-mentoring program.	14	2.93	0.917	16	3	0.73
1.1.c.2	The department provides training and resources (books, articles, online forums) on how to be an effective coach.	14	3.21	0.699	16	3.31	0.602
1.1.c.3	The department values online teaching in tenure and promotion decisions.	13	3.54	0.776	16	3.38	0.806
1.1.c.4	The culture of faculty and administration within the department values distance education.	14	3.5	0.65	16	3.56	0.629
1.1.c.5	The department offers training on topics such as content delivery, teaching modalities, and online instructional strategies.	13	3.62	0.506	16	3.5	0.632
1.1.c.6	The department values mentorship (in person and by technology).	13	3.15	0.689	16	3.06	0.68
1.1.c.7	Coaches should be required to train on the interactive technologies they must utilize in coaching and teaching online before they mentor online.	14	3	1.038	16	3.13	0.885
1.1.c.8	The department provides a clear rationale for the coach/practitioner relationship (why this mentor was chosen/what the mentored person can expect from the being coached).	13	2.77	0.927	16	2.88	0.806
Mean: 3.5 – 4.0 Very Important, 2.5 – 3.49 Important, 1.50 – 2.49 Helpful, 1.00 – 1.49 Unimportant							

As was the case with Survey Area 1.1.c (Now), the consensus means for the Future context for 1.1.c.4 and 1.1.c.5 were found to be Very Important. None of the survey items were found to be merely Helpful or Unimportant. As compared to the consensus means for the Now context, almost all of the survey items as ranked in the Future had higher consensus means. The two highest values, ranked at Very Important, did not change consensus means. The only item to slightly decrease the consensus

means from $M = 3.44$ to $M = 3.38$ was 1.1.c.3, *The department values online teaching in tenure and promotion decisions.* The original versus consensus means for Survey Area 1.1.c (Future) are displayed as a bar chart shown in Figure 11.

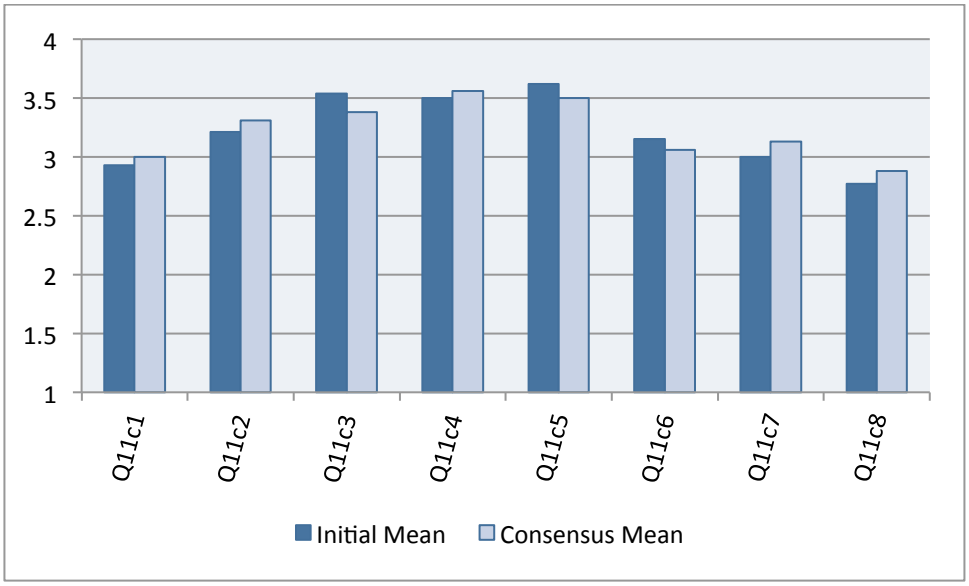

Figure 11. The Original Versus Consensus Means for Survey area 1.1.c (Future)

This survey area showed consistently high essentiality rankings. There were some changes in the means for Survey Area 1.1.c. A nonparametric Related-Samples Wilcoxon Signed Rank Test was run on the means for the "Now" findings versus the "Future" means. A null hypothesis that the median of differences between Means (Future) and Means (Now) is equal to zero was adopted. The Wilcoxon was not statistically significant, as $p = .084$ with a specified alpha level of 0.05. Therefore, the

null hypothesis is retained. The SPSS Hypothesis Test Summary appears in Appendix M.

The consensus means, displayed in the context of Now versus Future values, for all the items related to Survey Area 1.1.c appear in Figure 12.

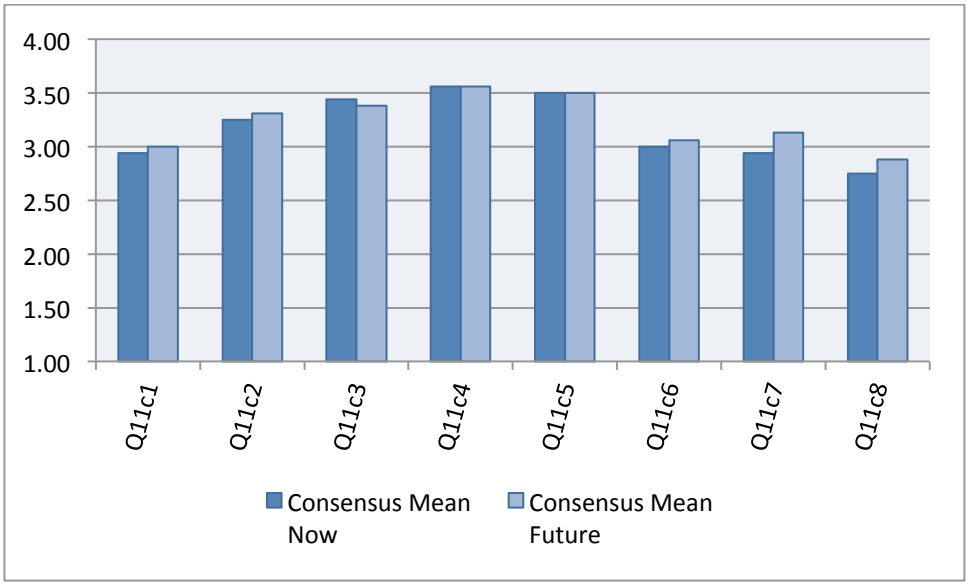

Figure 12. The Now Versus Future Consensus Means for Survey Area 1.1.c

Research Question Two

The second research question addressed by this Delphi Study was: What formal and informal activities or organizational processes related to e-mentoring would provide for preparation for teaching online? In Round One, the seven survey questions that addressed this area are listed in Table 12.

Table 12. Round One, Survey Questions in area 2.1: Formal or Informal Activities or Processes Related to E-Mentoring that Would Provide Preparation for Teaching Online

Item Number	Survey Item
2.1.1	A process exists to assign a coach to an individual practitioner.
2.1.2	A process exists whereby the practitioner chooses a dedicated coach.
2.1.3	A practitioner can choose a coach for a particular project because that coach has known talent in a desired skill.
2.1.4	A standard, prescribed set of activities is documented for the practitioner to complete, which the coach reviews.
2.1.5	Formal processes exist to educate faculty about copyright law regarding online delivery of education.
2.1.6	Formal processes exist to educate faculty about accessibility issues regarding online delivery of education.
2.1.7	Formal processes exist to educate faculty about institutional intellectual property expectations.

As a result of the feedback from Round One, one additional survey question was added to the survey in this area for Round Two, which is listed in Table 13.

Table 13. Round Two, New Survey Items for Area 2.1

Item Number	Survey Item
2.1.8.	The department provides other resources to learn about the online delivery of education (e.g. books, articles, best practices, online forums).

Analysis of Round Two for this survey area demonstrated that the original survey items in Survey area 2.1 had reached consensus. Therefore, the Round Three survey instrument included only the questions that had not reached consensus. A complete copy of the Round Three survey as distributed to the Delphi Panel appears in Appendix K. The original and consensus means and standard deviations for all the items related to Research Question Two appear in Table 14.

Table 14. Consensus Data for Research Question Two, Survey Area 2.1 (Now)

Survey area 2.1. What formal or informal activities or organizational processes related to e-mentoring would provide **preparation for teaching online**?							
Item Number	Survey Item	Initial			Consensus		
		n	Mean	SD	*n*	Mean	SD
2.1.1	A process exists to assign a coach to an individual practitioner.	15	2.60	.986	15	2.73	.884
2.1.2	A process exists whereby the practitioner chooses a dedicated coach.	14	2.86	.864	14	2.79	.893
2.1.3	A practitioner can choose a coach for a particular project because that coach has known talent in a desired skill.	15	3.07	.799	15	3.00	.756
2.1.4	A standard, prescribed set of activities is documented for the practitioner to complete, which the coach reviews.	14	2.57	1.089	14	2.71	1.069
2.1.5	Formal processes exist to educate faculty about copyright law regarding online delivery of education.	15	3.40	.828	15	3.47	.743
2.1.6	Formal processes exist to educate faculty about accessibility issues regarding online delivery of education.	15	3.47	.743	15	3.53	.640
2.1.7	Formal processes exist to educate faculty about institutional intellectual property expectations.	15	3.27	.799	15	3.40	.632
2.1.8.	The department provides other resources to learn about the online delivery of education (e.g. books, articles, best practices, online forums).	13	2.38	0.768	15	2.40	0.632
Mean: 3.5 – 4.0 Very Important, 2.5 – 3.49 Important, 1.50 – 2.49 Helpful, 1.00 – 1.49 Unimportant							

In this set of survey questions, the Delphi Panel returned only one item that was Very Important: 2.1.6, *Formal processes exist to educate faculty about accessibility issues regarding online delivery of education.* Six of the survey items were considered Important. Two of the survey items in consensus were very close to the top of the Important range. Those items were item 2.1.5, *Formal processes exist to educate faculty about copyright law regarding online delivery of education* with $M = 3.47$, and survey item 2.1.7, *Formal processes exist to educate faculty about institutional intellectual property expectations* with $M = 3.40$. At the middle of the Important range, survey item

2.1.3, *A practitioner can choose a coach for a particular project because that coach has known talent in a desired skill,* had a consensus mean of 3.00.

The following survey items were closely tied for consensus values, also within the Important range. Those three were:

- 2.1.3, A *process exists to assign a coach to an individual practitioner.* (*M* = 3.00)
- 2.1.2, *A process exists whereby the practitioner chooses a dedicated coach.* (*M* = 2.79)
- 2.1.4, *A standard, prescribed set of activities is documented for the practitioner to complete, which the coach reviews.* (*M* = 2.73)

The only survey item considered Helpful by the panel concerned resources being provided by the department to learn about online delivery of education. The consensus means for that item was *M* = 2.40. The original versus consensus means for Survey Area 2.1 (Now) are displayed as a bar chart shown in Figure 13.

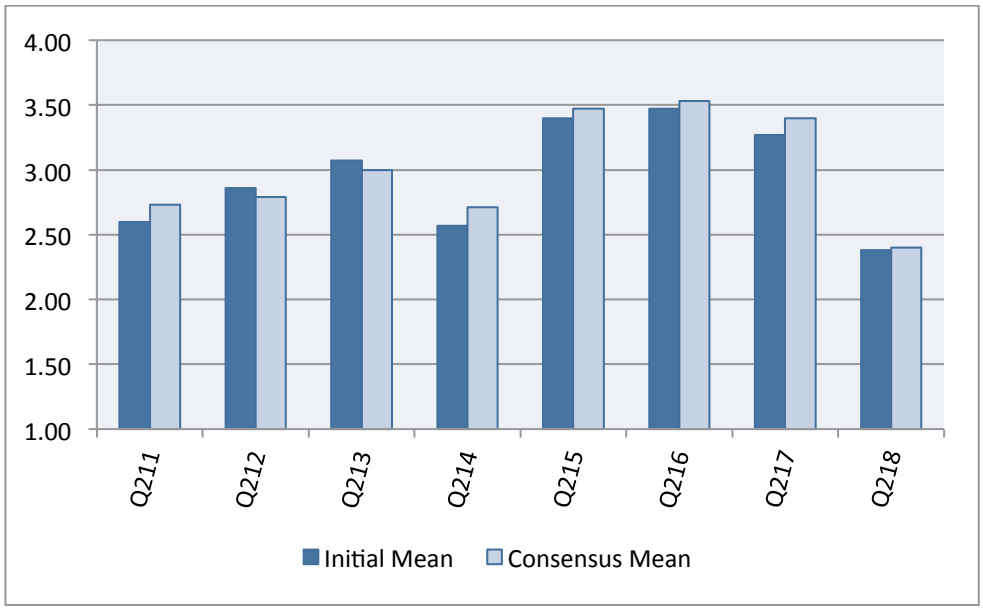

Figure 13. The Original Versus Consensus Means for Survey Area 2.1 (Now)

The same set of survey questions was ranked by the Delphi Panel in the context of five to ten years into the future. The original and consensus means and standard deviations for all the items related to Survey Area 2.1 (Future) appear in Table 15.

Table 15. Consensus Data for Research Question Two, Survey Area 2.1 (Future)

Survey area 2.1. What formal or informal activities or organizational processes related to e-mentoring would provide **preparation for teaching online**?							
Item Number	Survey Item	Initial			Consensus		
		n	Mean	SD	*n*	Mean	SD
2.1.1	A process exists to assign a coach to an individual practitioner.	14	2.71	.825	15	2.80	.676
2.1.2	A process exists whereby the practitioner chooses a dedicated coach.	14	2.86	.770	15	2.73	.799
2.1.3	A practitioner can choose a coach for a particular project because that coach has known talent in a desired skill.	14	3.07	.616	15	3.00	.655
2.1.4	A standard, prescribed set of activities is documented for the practitioner to complete, which the coach reviews.	14	2.57	1.158	15	2.67	1.113
2.1.5	Formal processes exist to educate faculty about copyright law regarding online delivery of education.	15	3.53	.640	15	3.53	.640
2.1.6	Formal processes exist to educate faculty about accessibility issues regarding online delivery of education.	14	3.21	.699	14	3.21	.579
2.1.7	Formal processes exist to educate faculty about institutional intellectual property expectations.	15	3.33	.617	15	3.40	.507
2.1.8.	The department provides other resources to learn about the online delivery of education (e.g. books, articles, best practices, online forums).	13	2.54	0.877	15	2.4	0.828
Mean: 3.5 – 4.0 Very Important, 2.5 – 3.49 Important, 1.50 – 2.49 Helpful, 1.00 – 1.49 Unimportant							

The results of that analyses showed the three of the survey items did not change their consensus means from the Now to the Future contexts. Two of the items had a ranking of Important in the survey for Now and their ranking showed it was expected to remain Important in the future. Those items were 2.1.3, regarding choosing a coach for

a particular skill, and. 2.1.7, regarding a processes to educate faculty about intellectual property. The third item which did not change means between Now and Future was the item ranked as Helpful, survey item 2.1.8, which asked about the essentiality of the department providing resources to learn about the delivery of online education.

Of the remaining five survey items that did change means, only one changed ranks. Survey item 2.1.6, *Formal processes exist to educate faculty about accessibility issues regarding online delivery of education,* decreased its rank from Very Important to Important. The other four survey items showed very little shift in means between the Current and Future contexts. The original versus consensus means for Survey Area 2.1 (Future) are displayed as a bar chart shown in Figure 14.

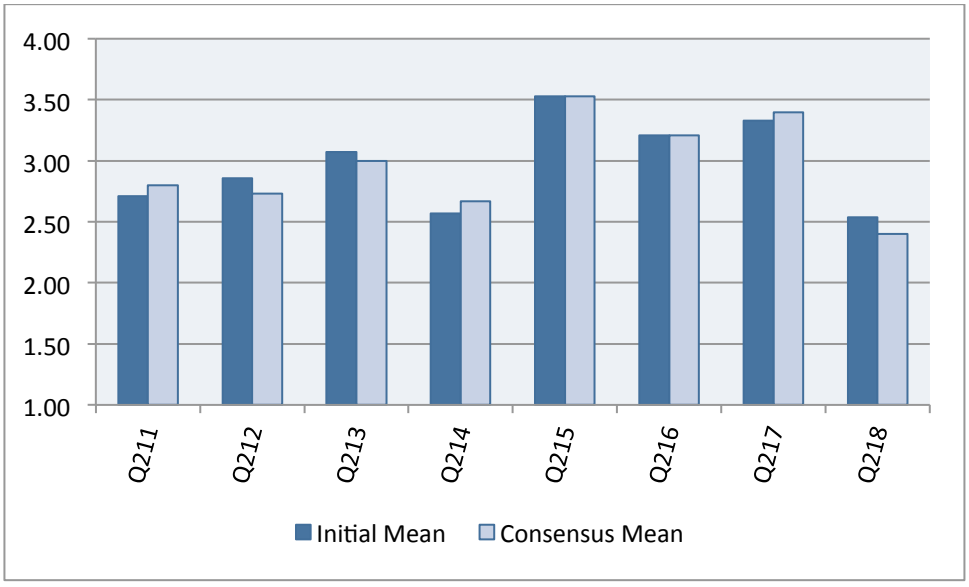

Figure 14. The Original Versus Consensus Means for Survey Area 2.1 (Future)

A nonparametric Related-Samples Wilcoxon Signed Rank Test was run on the means for the "Now" findings versus the "Future" consensus means for Survey Area 2.1. A null hypothesis that the median of differences between Means (Future) and Means (Now) is equal to zero was adopted. The Wilcoxon was not statistically significant, as p = .752 with a specified alpha level of 0.05. Therefore, the null hypothesis was retained. The SPSS Hypothesis Test Summary appears in Appendix M.

The consensus means, displayed in the context of Now versus Future values, for all the items related to Survey Area 2.1 appear in Figure 15.

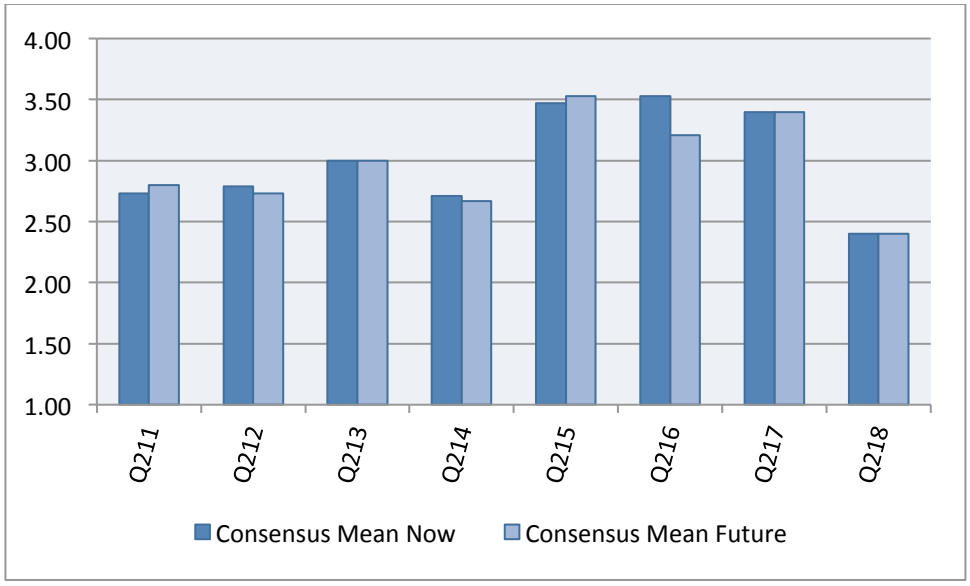

Figure 15. The Now Versus Future Consensus Means for Survey Area 2.1

Research Question Three

The third research question addressed by this study was: What formal and informal activities or organizational processes related to e-mentoring would provide for

collegiality? On Round One of the survey, six questions were supplied to the Delphi Panel for their essentiality ranking. Those six questions appear in Table 16.

Table 16. Round One, Survey Questions for Area 2.2: Formal or Informal Activities or Processes Related to E-Mentoring that Would Provide Collegiality

Item Number	Survey Item
2.2.1	All faculty new to online teaching participate with a coach in an e-mentoring relationship for some period of time.
2.2.2	All faculty are encouraged to participate as practitioners in a Community of Practice. That is, their participation is voluntary but it is viewed as beneficial to the Community of Practice.
2.2.3	All faculty with skills desired by the Community of Practice are encouraged to participate as coaches.
2.2.4	A formal opportunity for practitioners to meet and greet *online at the start* of the academic period should be provided.
2.2.5	A formal opportunity for practitioners to meet and greet *in person at the start* of the academic period should be provided.
2.2.6	An opportunity for practitioners to meet and greet *periodically online* during the academic period should be provided.

As a result of the feedback from Round One, one additional survey question was added to the survey in this area for Round Two, which is listed in Table 17.

Table 17. Round Two, New Survey Items for Area 2.2

Item Number	Survey Item
2.2.2.a	All faculty are required to participate as practitioners in a Community of Practice.

Analysis of Round Two for this survey area demonstrated that the original survey items in Survey area 2.1 had reached consensus. Therefore, the Round Three survey

instrument included only the question 2.2.2.a from this Research Question, because it had not reached consensus. A complete copy of the Round Three survey as distributed to the Delphi Panel appears in Appendix K. The original and consensus means and standard deviations for all the items related to Survey Area 2.2 appear in Table 18.

Table 18. Consensus Data for Research Question Three, Survey Area 2.2 (Now)

Survey area 2.2. What formal and informal activities or organizational processes related to e-mentoring would provide: **collegiality?**							
Item Number	Survey Item	Initial			Consensus		
		n	Mean	SD	*n*	Mean	SD
2.2.1	All faculty new to online teaching participate with a coach in an e-mentoring relationship for some period of time.	16	2.75	.856	16	2.88	.806
2.2.2	All faculty are encouraged to participate as practitioners in a Community of Practice. That is, their participation is voluntary but it is viewed as beneficial to the Community of Practice.	14	2.64	1.151	15	2.73	1.033
2.2.2.a	All faculty are required to participate as practitioners in a Community of Practice.	13	1.77	0.927	15	1.80	0.862
2.2.3	All faculty with skills desired by the Community of Practice are encouraged to participate as coaches.	16	2.63	.885	16	2.69	.793
2.2.4	A formal opportunity for practitioners to meet and greet *online at the start* of the academic period should be provided.	16	2.63	.885	16	2.56	.727
2.2.5	A formal opportunity for practitioners to meet and greet *in person at the start* of the academic period should be provided.	16	2.25	1.000	16	2.25	.931
2.2.6	An opportunity for practitioners to meet and greet *periodically online* during the academic period should be provided.	14	2.79	.699	14	2.71	.726
Mean: 3.5 – 4.0 Very Important, 2.5 – 3.49 Important, 1.50 – 2.49 Helpful, 1.00 – 1.49 Unimportant							

None of the survey items in area 2.2 were ranked Very Important by the Delphi Panel. The following five survey items were ranked as Important:

- 2.2.1, *All faculty new to online teaching participate with a coach in an e-mentoring relationship for some period of time.*

- 2.2.2, *All faculty are encouraged to participate as practitioners in a Community of Practice. That is, their participation is voluntary but it is viewed as beneficial to the Community of Practice.*
- 2.2.3, *All faculty with skills desired by the Community of Practice are encouraged to participate as coaches.*
- 2.2.4, *A formal opportunity for practitioners to meet and greet* ***online at the start*** *of the academic period should be provided.*
- 2.2.6, *An opportunity for practitioners to meet and greet* ***periodically online*** *during the academic period should be provided*.

As can be seen by the bar graph in Figure 16, the means for these five survey items were clustered very close together between a range of $M = 2.56$ and $M = 2.88$.

It is interesting to note that of the above five survey items, three (2.2.4, 2.2.5, and 2.2.6) related to a similar topic. All dealt with the opportunities for practitioners to meet. While the above three survey items were ranked as Important, opportunities for practitioners to meet and greet *periodically online* during the academic period was ranked higher than either formal opportunities to meet and greet *online* or in person at the *start* of the academic period, and much higher than to meet *in person*.

Two of the items were ranked as Helpful. Those items referred to all faculty being *required* to participate as practitioners in a Community of Practice and for a formal opportunity for practitioners to meet and greet *in person at the start of the semester.*

The original versus consensus means for Survey Area 2.2 (Now) are displayed as a bar chart shown in Figure 16.

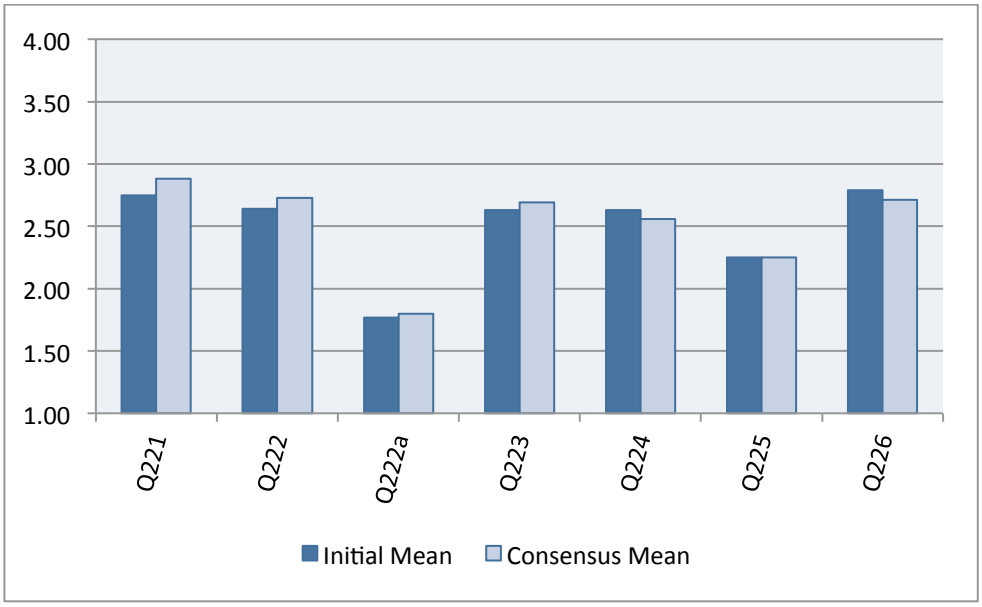

Figure 16. The Original Versus Consensus Means for Survey Area 2.2 (Now)

As in previous survey areas, the same questions for Survey Area 2.2 were presented to the Delphi Panel in the context of five to ten years hence. The original and consensus means and standard deviations for all the items related to Survey Area 2.2 (Future) appear in Table 19.

Table 19. Consensus Data for Research Question Three, Survey Area 2.2 (Future)

Survey area 2.2. What formal and informal activities or organizational processes related to e-mentoring would provide: **collegiality?**							
Item Number	Survey Item	Initial			Consensus		
		n	Mean	SD	*n*	Mean	SD
2.2.1	All faculty new to online teaching participate with a coach in an e-mentoring relationship for some period of time.	16	2.81	.834	16	2.94	.772
2.2.2	All faculty are encouraged to participate as practitioners in a Community of Practice. That is, their participation is voluntary but it is viewed as beneficial to the Community of Practice.	14	2.71	.994	15	2.80	.862
2.2.2.a	All faculty are required to participate as practitioners in a Community of Practice.	13	2.15	0.987	15	2.2	0.862
2.2.3	All faculty with skills desired by the Community of Practice are encouraged to participate as coaches.	16	2.63	.806	16	2.69	.704
2.2.4	A formal opportunity for practitioners to meet and greet *online at the start* of the academic period should be provided.	16	2.75	.931	16	2.75	.856
2.2.5	A formal opportunity for practitioners to meet and greet *in person at the start* of the academic period should be provided.	15	2.13	1.060	15	2.13	.990
2.2.6	An opportunity for practitioners to meet and greet *periodically online* during the academic period should be provided.	15	2.80	.775	15	2.73	.799
Mean: 3.5 – 4.0 Very Important, 2.5 – 3.49 Important, 1.50 – 2.49 Helpful, 1.00 – 1.49 Unimportant							

The following five survey items were again ranked as Important in the Future context:

- 2.2.1, *All faculty new to online teaching participate with a coach in an e-mentoring relationship for some period of time.*
- 2.2.2, *All faculty are encouraged to participate as practitioners in a Community of Practice. That is, their participation is voluntary but it is viewed as beneficial to the Community of Practice.*
- 2.2.3, *All faculty with skills desired by the Community of Practice are encouraged to participate as coaches.*
- 2.2.4, *A formal opportunity for practitioners to meet and greet online at the start of the academic period should be provided.*
- 2.2.6, *An opportunity for practitioners to meet and greet periodically online during the academic period should be provided.*

As can be seen by the bar graph in Figure 17, the means for these five survey items were clustered very close together between a range of $M = 2.73$ and $M = 2.94$.

The same two items, that of all faculty being *required* to participate as practitioners in a Community of Practice (2.2.a) and for a formal opportunity for practitioners to meet and greet *in person at the start of the semester* (2.2.5), were ranked as Helpful in the Future context.

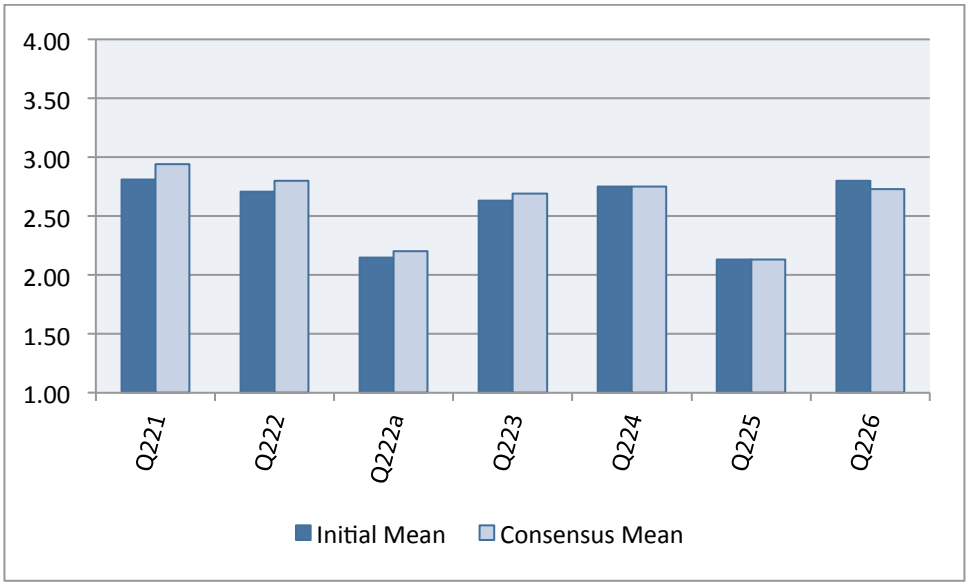

Figure 17. The Original Versus Consensus Means for Survey Area 2.2 (Future)

The differences between consensus means for the Now versus Future items in Survey Area 2.2 were very similar. A nonparametric Related-Samples Wilcoxon Signed Rank Test was run on the means for the "Now" findings versus the "Future" means. A null hypothesis that the median of differences between Means (Future) and Means (Now) is equal to zero was adopted. The Wilcoxon result was reported as $p =$

.128, with a specified alpha level of 0.05, which is not statistically significant. Therefore, the results indicated that one should fail to reject the null hypothesis. The SPSS Hypothesis Test Summary appears in Appendix M.

The consensus means, displayed in the context of Now versus Future values, for all the items related to Survey Area 2.2 appear in Figure 18.

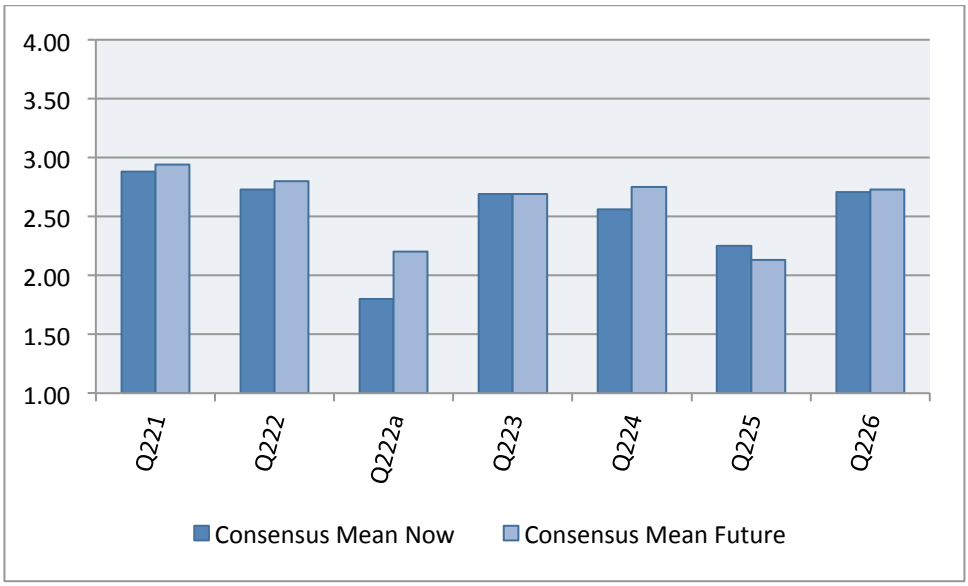

Figure 18. The Now Versus Future Consensus Means for Survey Area 2.2.a

Research Question Four

The fourth research question for this Delphi Study was: What formal and informal activities or organizational processes related to e-mentoring would provide for professional development? On Round One of the survey six questions, which are listed in Table 20, were included the survey for essentiality ranking.

Table 20. Round One, Survey Questions for Area 2.3: Formal or Informal Activities or Processes Related to E-Mentoring that Would Provide for Professional Development

Item Number	Survey Item
2.3.1	Open sharing of exemplars of work is encouraged.
2.3.2	Acting as a coach will positively impact my tenure and promotion chances.
2.3.3	Innovation in teaching online is incentivized monetarily.
2.3.4	Innovation in teaching online is incentivized by way of course releases.
2.3.5	Applying new tools and skills as a practitioner will positively impact my tenure and promotion chances.
2.3.6	Online training materials are provided.

As a result of the feedback from Round One, one additional survey question was added to the survey in this area for Round Two. That new survey item appears in Table 21.

Table 21. Round Two, New Survey Items for Area 2.3

Item Number	Survey Item
2.3.7	Incentives are offered to faculty already tenured and a full professor to participate in an e-mentoring relationship.

Analysis of Round Two for this survey area demonstrated that the original survey items in Survey area 2.3 had reached consensus. Therefore, the Round Three survey instrument included only the question 2.3.7 from this Research Question, because it had not reached consensus. A complete copy of the Round Three survey as distributed to the Delphi Panel appears in Appendix K. The original and consensus means and standard deviations for all the items related to Survey Item 2.3 (Now) appear in Table 22.

Table 22. Consensus Data for Research Question Four, Survey Area 2.3 (Now)

Survey area: 2.3. What formal and informal activities or organizational processes related to e-mentoring would provide: **professional development**							
Item Number	Survey Item	Initial			Consensus		
		n	Mean	SD	*n*	Mean	SD
2.3.1	Open sharing of exemplars of work is encouraged.	16	3.31	1.078	16	3.38	1.025
2.3.2	Acting as a coach will positively impact my tenure and promotion chances.	14	2.86	1.231	14	3.07	.917
2.3.3	Innovation in teaching online is incentivized monetarily.	16	2.44	.814	16	2.38	.806
2.3.4	Innovation in teaching online is incentivized by way of course releases.	15	2.47	1.187	16	2.56	1.094
2.3.5	Applying new tools and skills as a practitioner will positively impact my tenure and promotion chances.	15	2.60	1.056	15	2.73	.961
2.3.6	Online training materials are provided.	16	3.25	.683	16	3.31	.479
2.3.7	Incentives are offered to faculty already tenured and a full professor to participate in an e-mentoring relationship.	14	2.21	0.802	16	2.19	0.75
Mean: 3.5 – 4.0 Very Important, 2.5 – 3.49 Important, 1.50 – 2.49 Helpful, 1.00 – 1.49 Unimportant							

Based on the consensus means, all of the survey items were ranked as either Important or Helpful. None of the items were ranked in either the Very Important of Unimportant ranges.

Of the items ranked Important for this survey topic in the Current context, the three items with the highest ranking were:

- 2.3.1, *Open sharing of exemplars of work is encouraged.* (*M* = 3.38)
- 2.3.6, *Online training materials are provided.* (*M* = 3.31)
- 2.3.2, *Acting as a coach will positively impact my tenure and promotion chances*. (*M* = 3.07)

The other two survey items that were ranked as Important but whose consensus means were less that 3.0 were:

- 2.3.4, *Innovation in teaching online is incentivized by way of course releases.* (*M* = 2.56)

- 2.3.5, *Applying new tools and skills as a practitioner will positively impact my tenure and promotion chances*. (*M* = 2.73)

The remaining two survey items, regarding incentivizing innovation monetarily and incentivizing tenured faculty, were ranked as Helpful.

The original versus consensus means for Survey Area 2.3 (Now) are displayed as a bar chart shown in Figure 19.

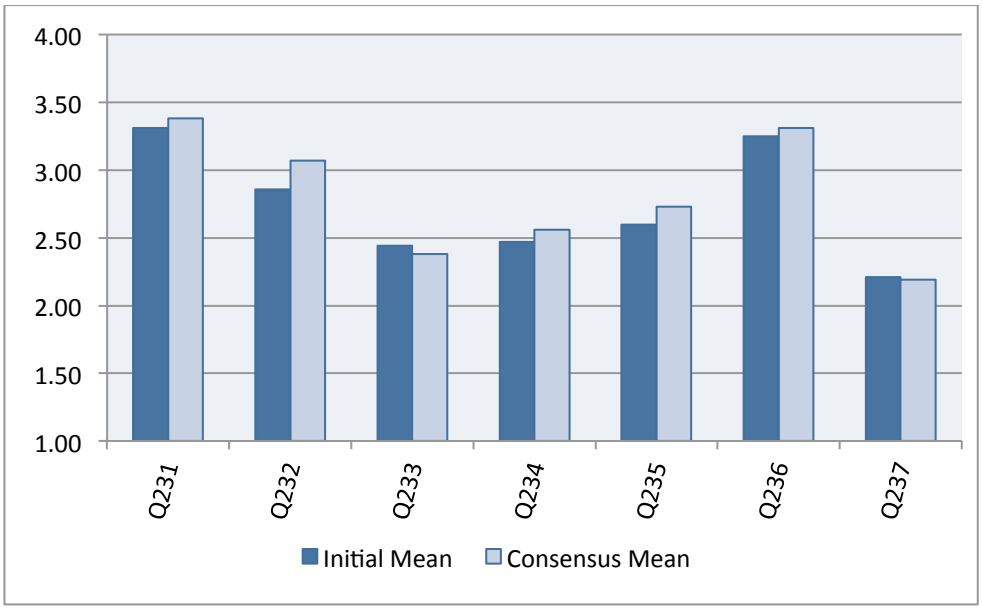

Figure 19. The Original Versus Consensus Means for Survey Area 2.3 (Now)

The survey items for Area 2.3 were presented to the Delphi Panel to rank the essentiality in the context of five to ten years in the future. The original and consensus means and standard deviations for all the items related to Survey Area 2.3 (Future) appear in Table 23.

Table 23. Consensus Data for Research Question Four, Survey Area 2.3 (Future)

Survey area: 2.3. What formal and informal activities or organizational processes related to e-mentoring would provide: **professional development**							
Item Number	Survey Item	Initial			Consensus		
		n	Mean	SD	*n*	Mean	SD
2.3.1	Open sharing of exemplars of work is encouraged.	15	3.33	.976	16	3.31	.946
2.3.2	Acting as a coach will positively impact my tenure and promotion chances.	13	3.00	1.291	13	3.23	.927
2.3.3	Innovation in teaching online is incentivized monetarily.	15	2.33	.900	16	2.25	.856
2.3.4	Innovation in teaching online is incentivized by way of course releases.	14	2.57	1.089	14	2.57	1.016
2.3.5	Applying new tools and skills as a practitioner will positively impact my tenure and promotion chances.	15	2.67	1.113	15	2.80	1.014
2.3.6	Online training materials are provided.	16	3.13	.806	16	3.19	.655
2.3.7	Incentives are offered to faculty already tenured and a full professor to participate in an e-mentoring relationship.	14	2.43	0.646	16	2.31	0.602
Mean: 3.5 – 4.0 Very Important, 2.5 – 3.49 Important, 1.50 – 2.49 Helpful, 1.00 – 1.49 Unimportant							

A comparison of the consensus ranks between Survey Areas 2.3 of Now versus the Future show that none of the items changed mean enough to be reported in a new ranking. Three of the items increased slightly, three decreased slightly, and one remained virtually the same. Therefore, five of the items (open sharing of exemplars, acting as a coach will positively impact my tenure and promotion chances, innovation is incentivized by way of course releases, applying new tools/skills will positively impact my tenure and promotion, and online training materials are provided) were still expected to be Important and two (innovation is incentivized monetarily and incentives are offered to faculty already tenured) remained Helpful.

The original versus consensus means for Survey Area 2.3 (Future) are displayed as a bar chart shown in Figure 20.

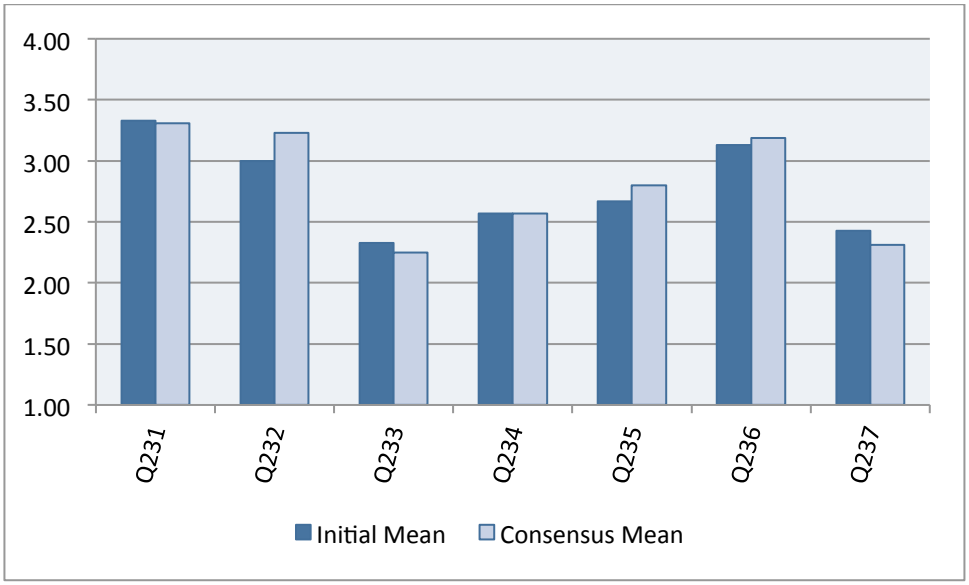

Figure 20. The Original Versus Consensus Means for Survey Area 2.3 (Future)

A nonparametric Related-Samples Wilcoxon Signed Rank Test was run on the means for the "Now" findings versus the "Future" means for Survey Area 2.3. A null hypothesis that the median of differences between Means (Future) and Means (Now) is equal to zero was adopted. The Wilcoxon was not statistically significant, as $p = .866$ with a specified alpha level of 0.05. Therefore, the null hypothesis was retained. The SPSS Hypothesis Test Summary appears in Appendix M.

The consensus means, displayed in the context of Now versus Future values, for all the items related to Survey Area 2.3 appear in Figure 21.

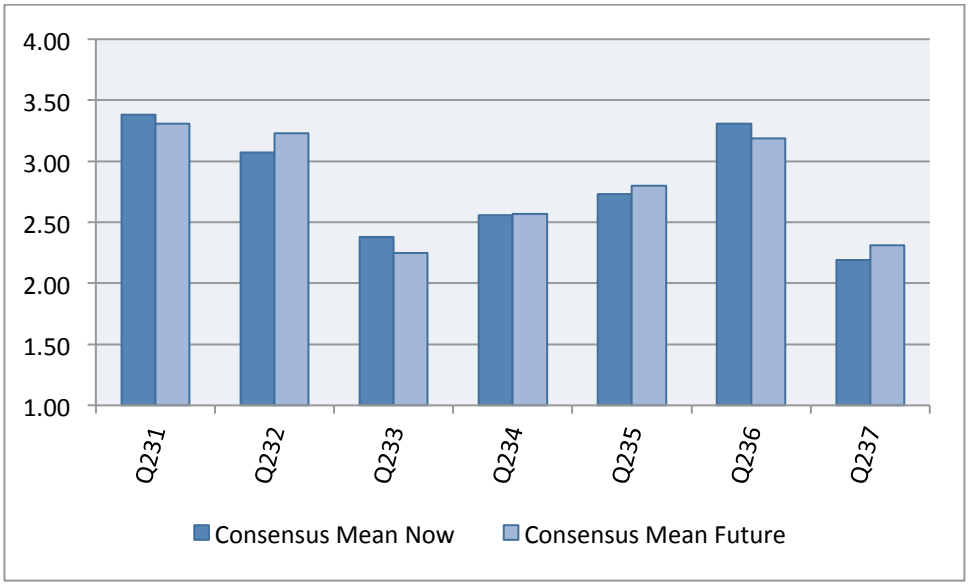

Figure 21. The Now Versus Future Consensus Means for Survey Area 2.3

Research Question Five

The fifth and final question addressed by this research was: What metrics can be used to determine that e-mentoring has attained increased spread, depth, sustainability, and sense of ownership in the distance education program? Coburn's research on scaling had revealed the four factors of: *spread, depth, sustainability,* and *change in sense of ownership* (2005). This Research Question was formulated into the four survey areas, one for each of Coburn's factors. For Round One, there were five survey questions dealing with *Spread*, six questions dealing with *Depth,* eight questions dealing with *Sustainability,* and a final five questions dealing with *Sense of Ownership.*

The Round One survey questions that dealt with metrics used to determine if e-mentoring has led to increased *spread* are listed in Table 24.

Table 24. Round One, Survey Questions for Area 3.1: Metrics that Can Be Used to Determine that E-Mentoring Has Led to Increased Spread

Item Number	Survey Item
3.1.1	The number of online courses taught is a good metric to track the spread of a distance education program.
3.1.2	The number of faculty delivering distance education classes is a good metric to track the spread of a distance education program.
3.1.3	Job satisfaction reported by faculty delivering distance education classes is a good metric to track spread of a distance education program.
3.1.4	The number of *fully* online programs offered is a good measure of a distance education program.
3.1.5	The number of *semester-credit hours* delivered online is a good measure of a distance education program.

The Round One survey questions that presented metrics used to determine if e-mentoring has led to increased *depth* are listed in Table 25.

Table 25. Round One, Survey Questions for Area 3.2: Metrics that Can Be Used to Determine that E-Mentoring Has Led to Increased Depth

Item Number	Survey Item
3.2.1	Faculty acceptance of delivering education online would be a good metric to track the depth of a distance education program.
3.2.2	The number of faculty participating as a coach in an e-mentoring program would be a good metric to track the depth of a distance education program.
3.2.3	The number of faculty participating as a practitioner in an e-mentoring program would be a good metric to track the depth of a distance education program.
3.2.4	The number of *faculty providing exemplars* as part of a Community of Practice in an e-mentoring program would be a good metric to track the depth of a distance education program.
3.2.5	The number of *exemplars contributed* by faculty to an online repository as part of a Community of Practice in an e-mentoring program would be a good metric to track the depth of a distance education program.
3.2.6	The *percentage* of the faculty in a department or program teaching distance courses is a good metric to track the depth of a distance education program.

The Round One survey questions for ranking metrics used to determine if e-mentoring has led to increased *sustainability* are listed in Table 26.

Table 26. Round One, Survey Questions for Area 3.3: Metrics that Can Be Used to Determine that E-Mentoring Has Led to Increased Sustainability

Item Number	Survey Item
3.3.1	The number of faculty *participating* as a *coach* in an e-mentoring program would be a good metric to track the sustainability of a distance education program.
3.3.2	The number of faculty *volunteering* as a *coach* in the e-mentoring program would be a good metric to track the sustainability of a distance education program.
3.3.3	The number of faculty inviting other faculty to participate in an e-mentoring program would be good metric to track the sustainability of a distance education program.
3.3.4	The number of faculty participating in the e-mentoring program as a *practitioner* would be a good metric to track the sustainability of a distance education program.
3.3.5	The number of formerly "coached" practitioners acting as coaches for others would be a good metric to track the sustainability of a distance education program.
3.3.6	The number of faculty repeating course delivery in a second semester would be a good metric to track the sustainability of a distance education program.
3.3.7	The number of faculty voluntarily attending workshops or other professional development opportunities would be a good metric to track the sustainability of a distance education program.
3.3.8	The number of faculty advocating for the e-mentoring program would be a good metric to track the sustainability of a distance education program.

The Round One survey questions that dealt with metrics used to determine if e-mentoring has led to increased *sense of ownership* are listed in Table 27.

Table 27. Round One, Survey Questions for Area 3.4: Metrics that Can Be Used to Determine that E-Mentoring Has Led to Increased Sense of Ownership

Item Number	Survey Item
3.4.1	The number of *faculty* initiating new practices in an e-mentoring program would be a good metric to track the sense of ownership of a distance education program.
3.4.2	The number of *new practices* suggested by faculty in the e-mentoring program would be a good metric to track the sense of ownership of a distance education program.
3.4.3	The number of *faculty* teaching additional distance education courses after participating in an e-mentoring program would be a good metric to track the sense of ownership of a distance education program.
3.4.4	The number of *contributions* by faculty to a Community of Practice repository would be a good metric to track the sense of ownership of a distance education program.
3.4.5	The number of *coaches* readily offering learning objectives and other contributions to the Community of Practice repository would be a good metric to track the sense of ownership of a distance education program.

As a result of the feedback from Round One, in Survey Areas 3.1 through 3.4 four additional survey questions were added to the survey and two were refined for Round Two. The modifications to the survey in Survey Areas 3.1 through 3.4 are listed in Table 28.

Table 28. Round Two, New and Revised Survey Items for Survey Areas 3.1 - 3.4

Item Number	Update	Survey Item
3.1.5	REFINED: Bold description added.	The number of *semester-credit hours* delivered online, **a metric that takes into account the number of students enrolled in the classes,** is a good measure of a distance education program.
3.1.6.	NEW	The amount of money generated by online courses is a good measure to track the spread of a distance education program.
3.1.7	NEW	Improved, average student evaluations of online courses is a good measure of the spread of a distance education program.
3.2.7	NEW	The number of articles published within the department about e-mentoring in higher education is a good metric to track the depth of a distance education program.
3.2.8	NEW	Feedback indicating increased quality of course delivery as articulated by those in e-mentoring relationships is a good metric to track the depth of a distance education program.
3.3.7.	REFINED: Bold description added.	The number of faculty voluntarily attending ***e-learning/online*** workshops or other professional development opportunities would be a good metric to track the sustainability of a distance education program.

Analysis of Round Two for this survey area demonstrated that the original survey items in for Research Question Five (Survey areas 3.1 through 3.4) had reached consensus. Therefore, the Round Three survey instrument included only the new questions for this Research Question (Items 3.1.6, 3.1.7, 3.2.7, and 3.2.8). A complete copy of the Round Three survey as distributed to the Delphi Panel appears in Appendix K.

Research Question Five dealt with metrics of scale. Each of the Coburn scalability factors was addressed by a short set of survey items. The first survey area presented to the Delphi Panel for Question Five dealt with metrics that could be used to determine that e-mentoring has led to increased *spread* (**growth in size or outreach**).

The original and consensus means and standard deviations for all the items related to Research Question Five, Survey Area 3.1 (Now) appear in Table 29.

Only two survey items in the Survey Area 3.1 (Now) were considered Important metrics for determining the increased *spread* (growth in size and outreach):

- 3.1.1, *The number of online courses taught is a good metric to track the spread of a distance education program.* (*M* = 2.57)
- 3.1.5, The *number of semester-credit hours delivered online,* ***a metric that takes into account the number of students enrolled in the classes,*** *is a good measure of a distance education program.* (*M* = 2.67)

All the other survey items in the area (number of faculty delivering distance education classes, job satisfaction reported by faculty delivering distance education classes, the number of fully online classes, the amount of money generated, and improved average student evaluations for online courses) were ranked as Helpful.

Table 29. Consensus Data for Research Question Five, Survey Area 3.1 (Now)

Survey area 3.1. What metrics can be used to determine that e-mentoring has led to increased: **spread (growth in size and outreach)?**							
Item Number	Survey Item	Initial			Consensus		
		n	Mean	SD	*n*	Mean	SD
3.1.1	The number of online courses taught is a good metric to track the spread of a distance education program.	13	2.54	.877	14	2.57	.756
3.1.2	The number of faculty delivering distance education classes is a good metric to track the spread of a distance education program.	15	2.40	.737	15	2.47	.640
3.1.3	Job satisfaction reported by faculty delivering distance education classes is a good metric to track spread of a distance education program.	15	2.20	.862	15	2.33	.816
3.1.4	The number of *fully* online programs offered is a good measure of a distance education program.	16	2.25	.931	16	2.31	.946
Mean: 3.5 – 4.0 Very Important, 2.5 – 3.49 Important, 1.50 – 2.49 Helpful, 1.00 – 1.49 Unimportant							

Table 29 Continued

Survey area 3.1. What metrics can be used to determine that e-mentoring has led to increased: **spread (growth in size and outreach)?**							
Item Number	Survey Item	Initial			Consensus		
		n	Mean	SD	*n*	Mean	SD
3.1.5	The number of *semester-credit hours* delivered online, **a metric that takes into account the number of students enrolled in the classes,** is a good measure of a distance education program.	14	2.50	1.019	15	2.67	.900
3.1.6	The amount of money generated by online courses is a good measure to track the spread of a distance education program.	11	2.36	0.924	13	2.46	0.776
3.1.7	Improved, average student evaluations of online courses is a good measure of the spread of a distance education program.	13	2.23	0.832	15	2.20	0.775
Mean: 3.5 – 4.0 Very Important, 2.5 – 3.49 Important, 1.50 – 2.49 Helpful, 1.00 – 1.49 Unimportant							

The original versus consensus means for Survey Area 3.1 (Now) are displayed as a bar chart shown in Figure 22.

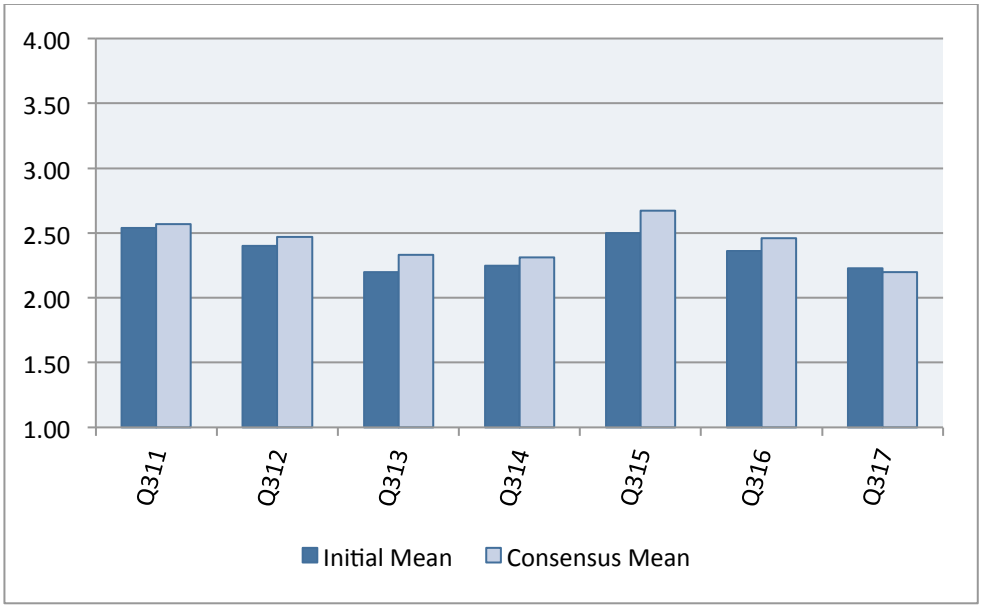

Figure 22. The Original Versus Consensus Means for Survey Area 3.1 (Now)

The survey items for Area 3.1 were again posited to the Delphi Panel in the context of five to ten years in the future (Future). The original and consensus means and standard deviations for all the items related to Survey Area 3.1 (Future) appear in Table 30.

Based on the consensus means of the Future context for Survey Area 3.1, only three survey items were considered Important; the rest were considered Helpful. Compared to their means determined for Now, the following two survey items increased in mean enough to move from Helpful to Important in the rankings:

- 3.1.2, *The number of faculty delivering distance education classes is a good metric to track the spread of a distance education program.* (Now $M = 2.47$, Future $M = 2.71$)
- 3.1.6, *The amount of money generated by online courses is a good measure to track the spread of a distance education program.* (Now $M = 2.46$, Future $M = 2.62$)

Table 30. Consensus Data for Research Question Five, Survey Area 3.1 (Future)

Survey area 3.1. What metrics can be used to determine that e-mentoring has led to increased: **spread (growth in size and outreach)?**							
Item Number	Survey Item	Initial			Consensus		
		n	Mean	SD	*n*	Mean	SD
3.1.1	The number of online courses taught is a good metric to track the spread of a distance education program.	13	2.38	1.044	14	2.50	1.019
3.1.2	The number of faculty delivering distance education classes is a good metric to track the spread of a distance education program.	14	2.57	1.016	14	2.71	.994
3.1.3	Job satisfaction reported by faculty delivering distance education classes is a good metric to track spread of a distance education program.	14	2.21	.802	15	2.27	.799
3.1.4	The number of *fully* online programs offered is a good measure of a distance education program.	15	2.33	.976	16	2.38	.957
Mean: 3.5 – 4.0 Very Important, 2.5 – 3.49 Important, 1.50 – 2.49 Helpful, 1.00 – 1.49 Unimportant							

Table 30 Continued

Survey area 3.1. What metrics can be used to determine that e-mentoring has led to increased: **spread (growth in size and outreach)?**							
Item Number	Survey Item	Initial			Consensus		
		n	Mean	SD	*n*	Mean	SD
3.1.5	The number of *semester-credit hours* delivered online, **a metric that takes into account the number of students enrolled in the classes,** is a good measure of a distance education program.	14	2.36	1.008	14	2.64	1.008
3.1.6	The amount of money generated by online courses is a good measure to track the spread of a distance education program.	12	2.58	1.165	13	2.62	1.044
3.1.7	Improved, average student evaluations of online courses is a good measure of the spread of a distance education program.	14	2.36	0.745	15	2.27	0.704
Mean: 3.5 – 4.0 Very Important, 2.5 – 3.49 Important, 1.50 – 2.49 Helpful, 1.00 – 1.49 Unimportant							

The third survey item ranked as Important, 3.1.5 regarding the number of semester-credit hours delivered online, had changed in rank very little between the Now and Future context (M = 2.67 and M = 2.64, respectively).

The fourth survey item ranked as Important, 3.1.1, the number of online courses taught, decreased slightly to *M* = 2.5, staying within the Important range.

The remaining three survey items in this topic area were again ranked in the Helpful range and their consensus means changed very little between the Current and Future contexts.

The original versus consensus means for Survey Area 3.1 (Future) are displayed as a bar chart shown in Figure 23.

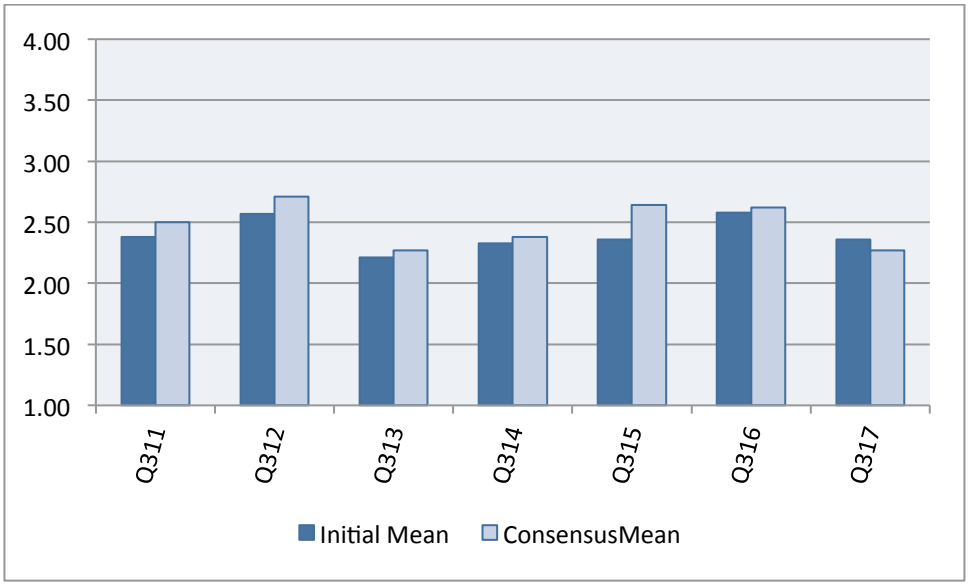

Figure 23. The Original Versus Consensus Means for Survey Area 3.1 (Future)

A nonparametric Related-Samples Wilcoxon Signed Rank Test was run on the means for the "Now" findings versus the "Future" means. A null hypothesis that the median of differences between Means (Future) and Means (Now) is equal to zero was adopted. The Wilcoxon result was reported by SPSS as $p = .398$ with a specified alpha level of 0.05, which was not statistically significant. Therefore, the null hypothesis is retained. The SPSS Hypothesis Test Summary appears in Appendix M.

The consensus means, displayed in the context of Now versus Future values, for all the items related to Survey Area 3.1 appear in Figure 24.

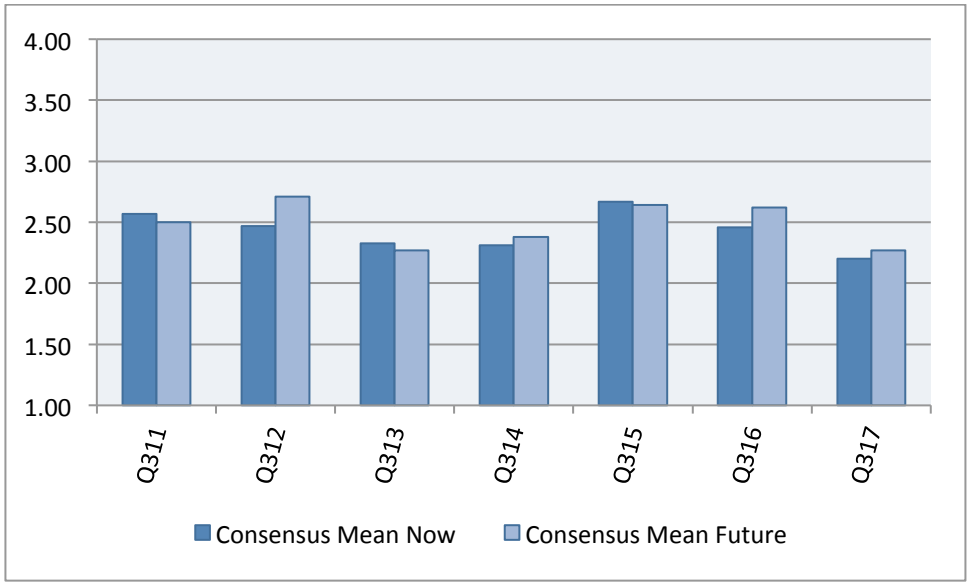

Figure 24. The Now Versus Future Consensus Means for Survey Area 3.1

The second survey area presented to the Delphi Panel for Question Five dealt with metrics that could be used to determine that e-mentoring has led to increased *depth* (**internalization of the goal as demonstrated by participative behavior**). The original and consensus means and standard deviations for all the items related to Survey Area 3.2 (Now) appear in Table 31.

Table 31. Consensus Data for Research Question Five, Survey Area 3.2 (Now)

Survey area 3.2. What metrics can be used to determine that e-mentoring has led to increased: **depth (internalization of the goal as demonstrated by participative behavior)?**							
Item Number	Survey Item	Initial			Consensus		
		n	Mean	SD	*n*	Mean	SD
3.2.1	Faculty acceptance of delivering education online would be a good metric to track the depth of a distance education program.	15	3.13	.743	15	3.27	.704
3.2.2	The number of faculty participating as a coach in an e-mentoring program would be a good metric to track the depth of a distance education program.	16	2.50	.730	16	2.56	.629
3.2.3	The number of faculty participating as a practitioner in an e-mentoring program would be a good metric to track the depth of a distance education program.	15	2.33	.816	15	2.40	.828
3.2.4	The number of *faculty providing exemplars* as part of a Community of Practice in an e-mentoring program would be a good metric to track the depth of a distance education program.	15	2.60	1.056	15	2.53	.834
3.2.5	The number of *exemplars contributed* by faculty to an online repository as part of a Community of Practice in an e-mentoring program would be a good metric to track the depth of a distance education program.	16	2.50	1.095	16	2.56	.892
3.2.6	The *percentage* of the faculty in a department or program teaching distance courses is a good metric to track the depth of a distance education program.	14	2.14	.949	15	2.20	.862
3.2.7	The number of articles published within the department about e-mentoring in higher education is a good metric to track the depth of a distance education program.	14	1.50	0.65	16	1.50	0.632
3.2.8	Feedback indicating increased quality of course delivery as articulated by those in e-mentoring relationships is a good metric to track the depth of a distance education program.	14	2.57	0.938	16	2.63	0.806
Mean: 3.5 – 4.0 Very Important, 2.5 – 3.49 Important, 1.50 – 2.49 Helpful, 1.00 – 1.49 Unimportant							

All the items in this survey area were ranked as Important or Helpful. Item 3.2.1, *Faculty acceptance of delivering education online would be a good metric to track the depth of a distance education program,* the highest ranked metric for this factor, had a

consensus $M = 3.27$. Four of the other survey items had a consensus mean in the Important range but their means were all clustered at the bottom of that ranking's scale:

- 3.2.2, *The number of faculty participating as a coach in an e-mentoring program would be a good metric to track the depth of a distance education program.*
- 3.2.4, *The number of faculty providing exemplars as part of a Community of Practice in an e-mentoring program would be a good metric to track the depth of a distance education program.*
- 3.2.5, *The number of exemplars contributed by faculty to an online repository as part of a Community of Practice in an e-mentoring program would be a good metric to track the depth of a distance education program.*
- 3.2.8, *Feedback indicating increased quality of course delivery as articulated by those in e-mentoring relationships is a good metric to track the depth of a distance education program.*

The remaining three survey items in this metric focus were rated as Helpful. The metrics posted for these survey items regarded the number of faculty participating as a practitioner ($M = 2.40$), the *percentage* of faculty teaching distance courses ($M = 2.20$), and the number of articles published within the department about e-mentoring ($M = 1.50$). The original versus consensus means for Survey Area 3.2 (Now) are displayed as a bar chart shown in Figure 25.

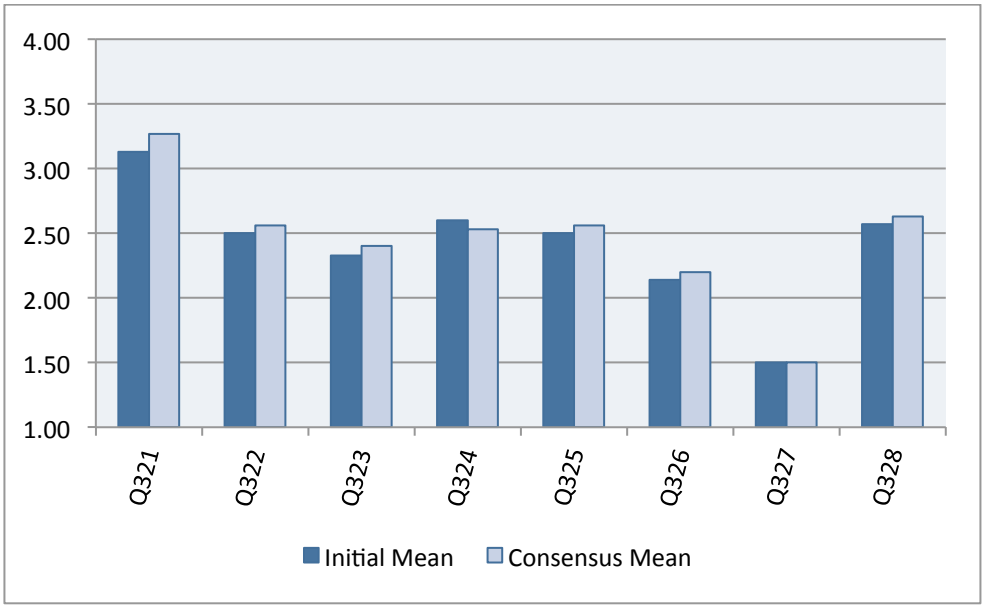

Figure 25. The Original Versus Consensus Means for Survey Area 3.2 (Now)

As was the case for the previous survey areas, the survey items that dealt with metrics that could be used to determine that e-mentoring has led to increased *depth* were also posited to the Delphi Panel from the perspective of five to ten years in the future. The original and consensus means and standard deviations for all the items related to Survey Area 3.2 (Future) appear in Table 32.

Table 32. Consensus Data for Research Question Five, Survey Area 3.2 (Future)

Survey area 3.2. What metrics can be used to determine that e-mentoring has led to increased: **depth (internalization of the goal as demonstrated by participative behavior)?**							
Item Number	Survey Item	Initial			Consensus		
		n	Mean	SD	*n*	Mean	SD
3.2.1	Faculty acceptance of delivering education online would be a good metric to track the depth of a distance education program.	14	3.00	1.038	15	3.27	.884
3.2.2	The number of faculty participating as a coach in an e-mentoring program would be a good metric to track the depth of a distance education program.	16	2.50	.966	16	2.56	.964
3.2.3	The number of faculty participating as a practitioner in an e-mentoring program would be a good metric to track the depth of a distance education program.	15	2.40	.986	15	2.47	.990
3.2.4	The number of *faculty providing exemplars* as part of a Community of Practice in an e-mentoring program would be a good metric to track the depth of a distance education program.	15	2.60	1.242	15	2.53	1.060
3.2.5	The number of *exemplars contributed* by faculty to an online repository as part of a Community of Practice in an e-mentoring program would be a good metric to track the depth of a distance education program.	16	2.56	1.153	16	2.69	.873
3.2.6	The *percentage* of the faculty in a department or program teaching distance courses is a good metric to track the depth of a distance education program.	14	2.21	1.051	14	2.29	.994
3.2.7	The number of articles published within the department about e-mentoring in higher education is a good metric to track the depth of a distance education program.	15	1.8	0.941	16	1.81	0.911
3.2.8	Feedback indicating increased quality of course delivery as articulated by those in e-mentoring relationships is a good metric to track the depth of a distance education program.	15	2.53	0.915	16	2.63	0.806
Mean: 3.5 – 4.0 Very Important, 2.5 – 3.49 Important, 1.50 – 2.49 Helpful, 1.00 – 1.49 Unimportant							

There was not a lot of change in consensus means between Now and Future survey items. None of the survey items changed essentiality rankings. Fully half of the survey items did not change means between the initial survey and the consensus value at all and all of four were ranked as Important:

- 3.2.1, *Faculty acceptance of delivering education online would be a good metric to track the depth of a distance education program.*
- 3.2.2, *The number of faculty participating as a coach in an e-mentoring program would be a good metric to track the depth of a distance education program.*
- 3.2.4*, The number of faculty providing exemplars as part of a Community of Practice in an e-mentoring program would be a good metric to track the depth of a distance education program.*
- 3.2.8, *Feedback indicating increased quality of course delivery as articulated by those in e-mentoring relationships is a good metric to track the depth of a distance education program.*

The fifth survey item ranked as Important showed a slight increase in Future over the Now value. Item 3.2.5, *The number of exemplars contributed by faculty to an online repository as part of a Community of Practice in an e-mentoring program would be a good metric to track the depth of a distance education program,* increased from consensus $M = 2.56$ (Now) to $M = 2.69$ (Future).

The consensus means of remaining three survey items increased slightly from the Now to the Future perspective. Item 3.2.3, regarding the number of faculty participating as a practitioner in an e-mentoring program, increased to $M = 2.47$, which brought it just slightly under the line for a ranking of Important. The other two items, concerning the percentage of faculty teaching distance courses and the number of articles about e-mentoring being published by the department, increased somewhat but still remained solidly in the Helpful range. The original versus consensus means for Survey Area 3.2 (Future) are displayed as a bar chart shown in Figure 26.

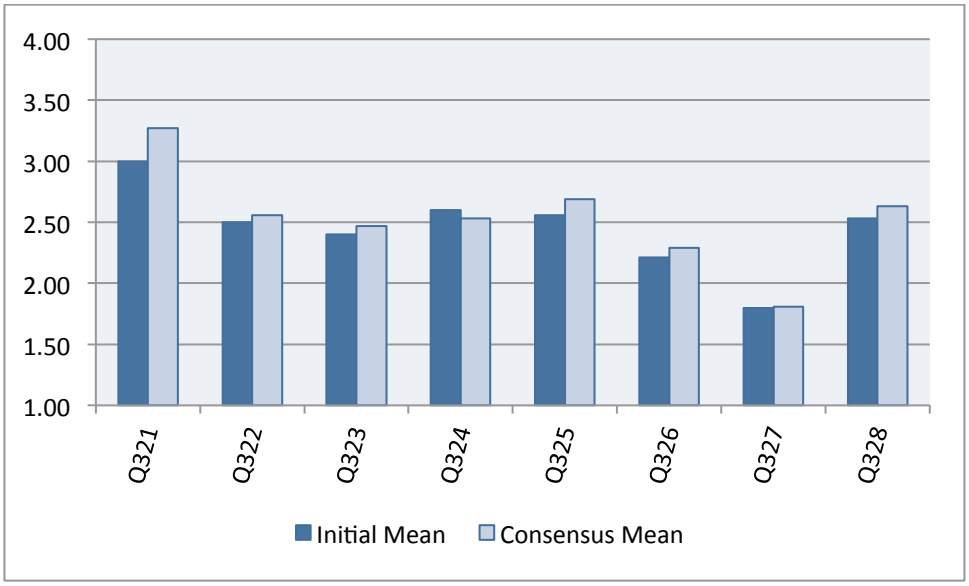

Figure 26. The Original Versus Consensus Means for Survey Area 3.2 (Future)

A nonparametric Related-Samples Wilcoxon Signed Rank Test was also run on the means for the "Now" findings versus the "Future" means for this survey area. A null hypothesis that the median of differences between Means (Future) and Means (Now) is equal to zero was adopted. The Wilcoxon result was reported by SPSS as $p = .080$ with a specified alpha level of 0.05, a finding which is not statistically significant. Therefore, the null hypothesis is retained. The SPSS Hypothesis Test Summary appears in Appendix M.

The consensus means, displayed in the context of Now versus Future values, for all the items related to Survey Area 3.2 appear in Figure 27.

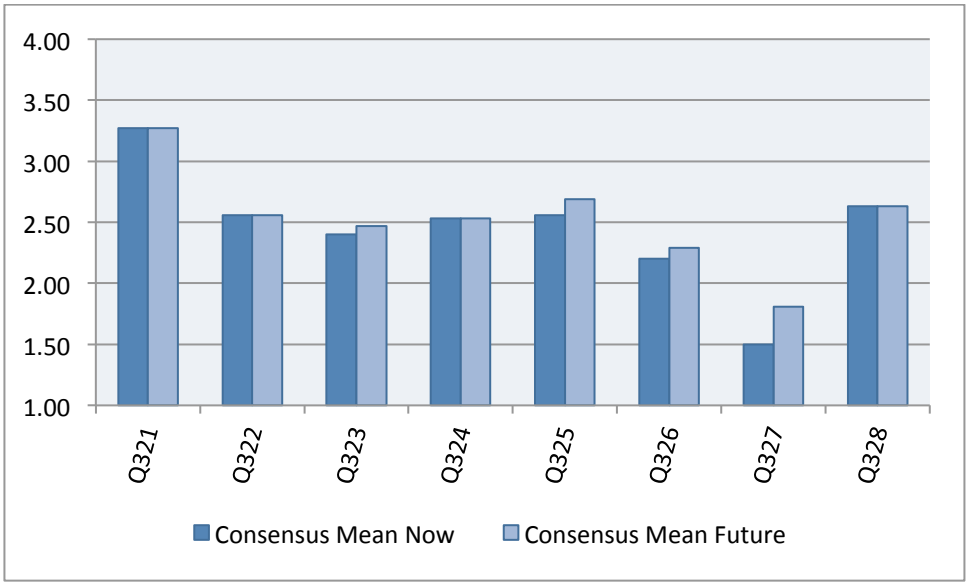

Figure 27. The Now Versus Future Consensus Means for Survey Area 3.2

The third survey area presented to the Delphi Panel for Question Five dealt with metrics that could be used to determine that e-mentoring has led to increased *sustainability* **(use of e-mentoring practice had taken hold in the faculty community of practice to help scale distance education program)**. The original and consensus means and standard deviations for all the items related to Survey Area 3.3 (Now) appear in Table 33.

Table 33. Consensus Data for Research Question Five, Survey Area 3.3 (Now)

Survey area: 3.3. What metrics can be used to determine that e-mentoring has led to increased: **sustainability (use of e-mentoring practice had taken hold in the faculty community of practice to help scale distance education program)?**							
Item Number	Survey Item	Initial			Consensus		
		n	Mean	SD	*n*	Mean	SD
3.3.1	The number of faculty *participating* as a *coach* in an e-mentoring program would be a good metric to track the sustainability of a distance education program.	15	2.47	.516	15	2.40	.507
3.3.2	The number of faculty *volunteering* as a *coach* in the e-mentoring program would be a good metric to track the sustainability of a distance education program.	15	2.60	.986	15	2.73	.884
3.3.3	The number of faculty inviting other faculty to participate in an e-mentoring program would be good metric to track the sustainability of a distance education program.	15	2.27	.961	15	2.33	.900
3.3.4	The number of faculty participating in the e-mentoring program as a *practitioner* would be a good metric to track the sustainability of a distance education program.	15	2.60	.910	15	2.67	.900
3.3.5	The number of formerly "coached" practitioners acting as coaches for others would be a good metric to track the sustainability of a distance education program.	16	3.13	.806	16	3.25	.683
3.3.6	The number of faculty repeating course delivery in a second semester would be a good metric to track the sustainability of a distance education program.	16	2.56	1.031	16	2.69	.873
3.3.7	The number of faculty voluntarily attending ***e-learning/online*** workshops or other professional development opportunities would be a good metric to track the sustainability of a distance education program.	15	2.80	.862	16	2.81	.834
3.3.8	The number of faculty advocating for the e-mentoring program would be a good metric to track the sustainability of a distance education program.	15	3.00	.845	16	3.00	.730
Mean: 3.5 – 4.0 Very Important, 2.5 – 3.49 Important, 1.50 – 2.49 Helpful, 1.00 – 1.49 Unimportant							

Six of the eight survey items for this metric were ranked in the Important range; only two were ranked as Helpful. There were no survey items ranked as either Very Important or Unimportant.

Of the Important items, the consensus mean of survey item 3.2.5 stood out above the rest at M = 3.25. Therefore, of the possible metrics presented, the Delphi Panel considered the number of formerly "coached" practitioners acting as coaches for others as being the most important. The survey items ranked as Important are listed by descending order of their consensus means:

- 3.3.5, *The number of formerly "coached" practitioners acting as coaches for others would be a good metric to track the sustainability of a distance education program.* (*M* = 3.25)
- 3.3.8, *The number of faculty advocating for the e-mentoring program would be a good metric to track the sustainability of a distance education program.* (*M* = 3.00)
- 3.3.7, *The number of faculty voluntarily attending* ***e-learning/online*** *workshops or other professional development opportunities would be a good metric to track the sustainability of a distance education program.* (*M* = 2.81)
- 3.3.2, *The number of faculty volunteering as a coach in the e-mentoring program would be a good metric to track the sustainability of a distance education program.* (*M* = 2.73)
- 3.3.6, *The number of faculty repeating course delivery in a second semester would be a good metric to track the sustainability of a distance education program.* (*M* = 2.69)
- 3.3.4, *The number of faculty participating in the e-mentoring program as a practitioner would be a good metric to track the sustainability of a distance education program.* (*M* = 2.67)

The remaining two survey items (3.3.1 and 3.3.3) were ranked as Helpful by the Delphi Panel. Item 3.3.1 proposed the metric as the number of faculty *participating* as a coach in an e-mentoring program (*M* = 2.40), which was ranked as less essential than survey item 3.3.2, the number of faculty *volunteering* as a coach (*M* = 2.73). Item 3.3.3

proposed the metric that the number of faculty inviting other faculty to participate in an e-mentoring program, which had the consensus mean of 2.33. The original versus consensus means for Survey Area 3.3 (Now) are displayed as a bar chart shown in Figure 28.

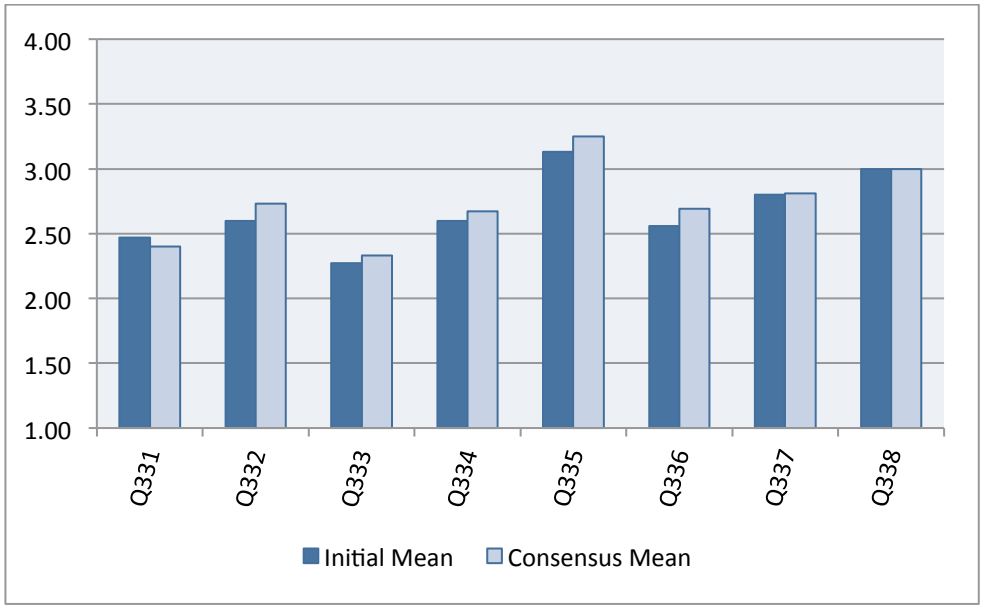

Figure 28. The Original Versus Consensus Means for Survey Area 3.3 (Now)

As in previous survey areas, the Survey Area 3.3 items were ranked by the Delphi Panel in the context of expected essentiality in five to ten years in the future. The original and consensus means and standard deviations for all the items related to Survey Area 3.3 (Future) appear in Table 34.

Table 34. Consensus Data for Research Question Five, Survey Area 3.3 (Future)

Survey area: 3.3. What metrics can be used to determine that e-mentoring has led to increased: **sustainability (use of e-mentoring practice had taken hold in the faculty community of practice to help scale distance education program)?**							
Item Number	Survey Item	Initial			Consensus		
		n	Mean	SD	*n*	Mean	SD
3.3.1	The number of faculty *participating* as a *coach* in an e-mentoring program would be a good metric to track the sustainability of a distance education program.	14	2.43	.852	14	2.43	.938
3.3.2	The number of faculty *volunteering* as a *coach* in the e-mentoring program would be a good metric to track the sustainability of a distance education program.	15	2.60	.910	15	2.80	.862
3.3.3	The number of faculty inviting other faculty to participate in an e-mentoring program would be good metric to track the sustainability of a distance education program.	15	2.07	1.033	15	2.20	1.082
3.3.4	The number of faculty participating in the e-mentoring program as a *practitioner* would be a good metric to track the sustainability of a distance education program.	15	2.53	.834	15	2.67	.900
3.3.5	The number of formerly "coached" practitioners acting as coaches for others would be a good metric to track the sustainability of a distance education program.	16	2.88	.885	16	3.19	.750
3.3.6	The number of faculty repeating course delivery in a second semester would be a good metric to track the sustainability of a distance education program.	16	2.63	1.147	16	2.69	1.014
3.3.7	The number of faculty voluntarily attending ***e-learning/online*** workshops or other professional development opportunities would be a good metric to track the sustainability of a distance education program.	15	2.60	.910	16	2.63	.885
3.3.8	The number of faculty advocating for the e-mentoring program would be a good metric to track the sustainability of a distance education program.	15	2.87	.915	16	2.88	.806
Mean: 3.5 – 4.0 Very Important, 2.5 – 3.49 Important, 1.50 – 2.49 Helpful, 1.00 – 1.49 Unimportant							

Several of the survey items regarding sense of ownership changed slightly in the Future as compared to the Current perspective (Now). None of the items changed rankings. All of the survey items remained ranked in the Important or Helpful ranges.

The highest ranked survey item, 3.3.5 regarding the number of formerly "coached" practitioners acting as coaches decreased slightly from a consensus mean Now of 3.25 to a consensus Future mean of 3.19. The next two highest ranked survey items, 3.3.4, regarding the number of faculty participating as a practitioner, and 3.3.6, the number of faculty repeating course delivery in a second semester, were found to have the same consensus means for both the Now and Future contexts.

The other five survey items changed slightly but did not change overall rankings for the Future context as compared to those reported in the Current context (Now).

The original versus consensus means for Survey Area 3.3 (Future) are displayed as a bar chart shown in Figure 29.

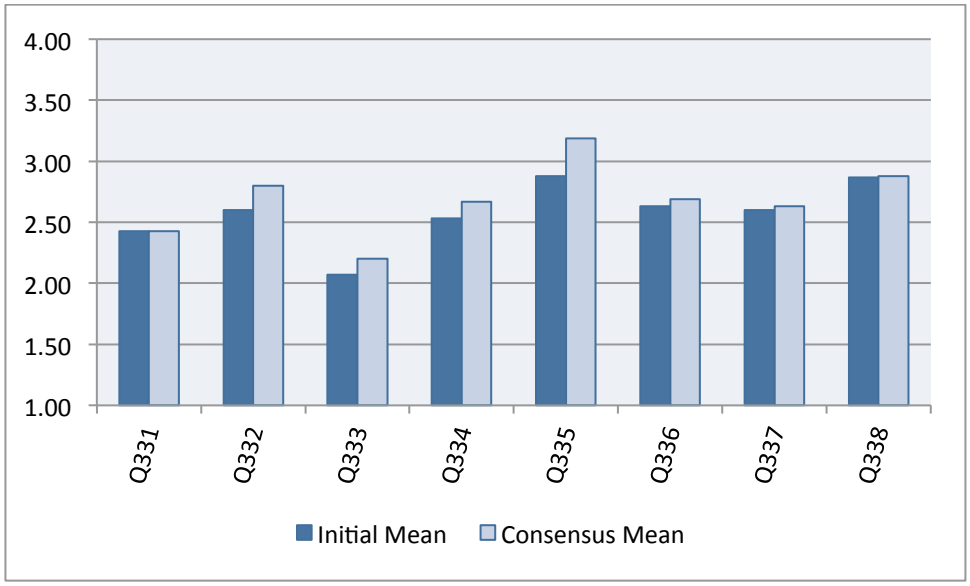

Figure 29. The Original Versus Consensus Means for Survey Area 3.3 (Future)

A nonparametric Related-Samples Wilcoxon Signed Rank Test was also run on the means for the "Now" findings versus the "Future" means for this survey area. A null hypothesis that the median of differences between Means (Future) and Means (Now) is equal to zero was adopted. The Wilcoxon result was reported by SPSS as $p = .176$ with a specified alpha level of 0.05, a finding which is not statistically significant. Therefore, the null hypothesis is retained. The SPSS Hypothesis Test Summary appears in Appendix M.

The consensus means, displayed in the context of Now versus Future values, for all the items related to Survey Area 3.3 appear in Figure 30.

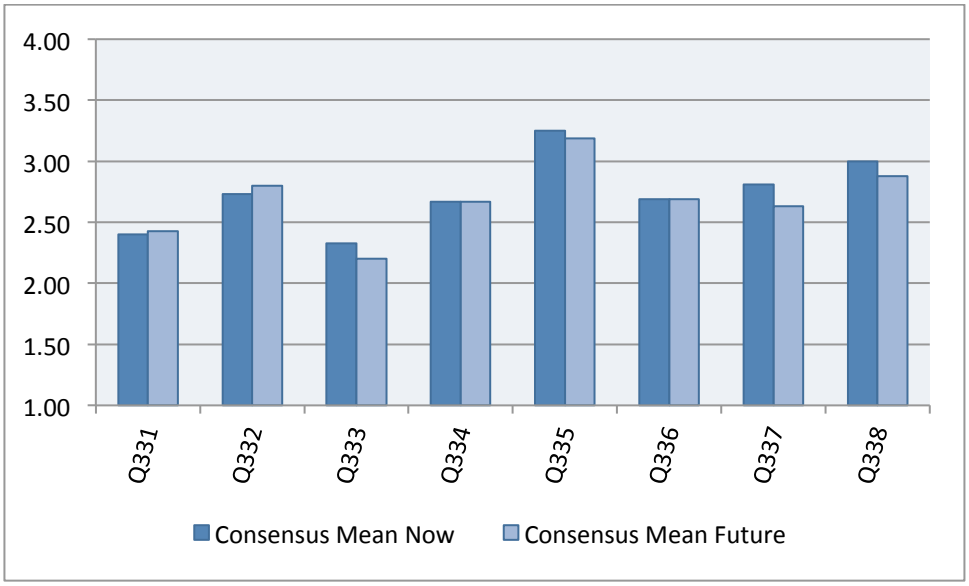

Figure 30. The Now Versus Future Consensus Means for Survey Area 3.3

The fourth and final survey area presented to the Delphi Panel for Question Five dealt with metrics that could be used to determine that e-mentoring has led to increased *sense of ownership* (**sense of ownership in scaling the distance education program as is felt by the faculty community)**. The original and consensus means and standard deviations for all the items related to Survey Area 3.4 (Now) appear in Table 35.

Table 35. Consensus Data for Research Question Five, Survey Area 3.4 (Now)

Survey area 3.4. What metrics can be used to determine that e-mentoring has led to increased**: sense of ownership (sense of ownership in scaling the distance education program as is felt by faculty community)?**							
Item Number	Survey Item	Initial			Consensus		
		n	Mean	SD	*n*	Mean	SD
3.4.1	The number of *faculty* initiating new practices in an e-mentoring program would be a good metric to track the sense of ownership of a distance education program.	14	3.29	.825	15	3.33	.724
3.4.2	The number of *new practices* suggested by faculty in the e-mentoring program would be a good metric to track the sense of ownership of a distance education program.	15	3.00	.845	16	3.13	.719
3.4.3	The number of *faculty* teaching additional distance education courses after participating in an e-mentoring program would be a good metric to track the sense of ownership of a distance education program.	16	2.69	.873	16	2.94	.680
3.4.4	The number of *contributions* by faculty to a Community of Practice repository would be a good metric to track the sense of ownership of a distance education program.	14	2.86	.949	14	2.93	.829
3.4.5	The number of *coaches* readily offering learning objectives and other contributions to the Community of Practice repository would be a good metric to track the sense of ownership of a distance education program.	14	3.00	.961	14	3.07	.829
Mean: 3.5 – 4.0 Very Important, 2.5 – 3.49 Important, 1.50 – 2.49 Helpful, 1.00 – 1.49 Unimportant							

The Delphi Panel ranked all of the items in Survey Area 3.4 as Important. The most highly ranked proposed metric was item 3.4.1 with a consensus mean of 3.33. This survey item suggested that the number of *faculty* initiating new practices in an e-mentoring program would be a good metric to track the sense of ownership of a distance education program. All of the other items had means clustered very closely above and below the 3.0 mark in the rankings. These proposed metrics dealt with the number of

new practices suggested by faculty in an e-mentoring program, the number of *faculty* teaching additional distance education courses after participating in an e-mentoring program, the number of *contributions* by faculty to a Community of Practice (CoP) repository, and the number of *coaches* readily offering such contributions as learning objectives to the CoP repository. The original versus consensus means for Survey Area 3.4 (Now) are displayed as a bar chart shown in Figure 31.

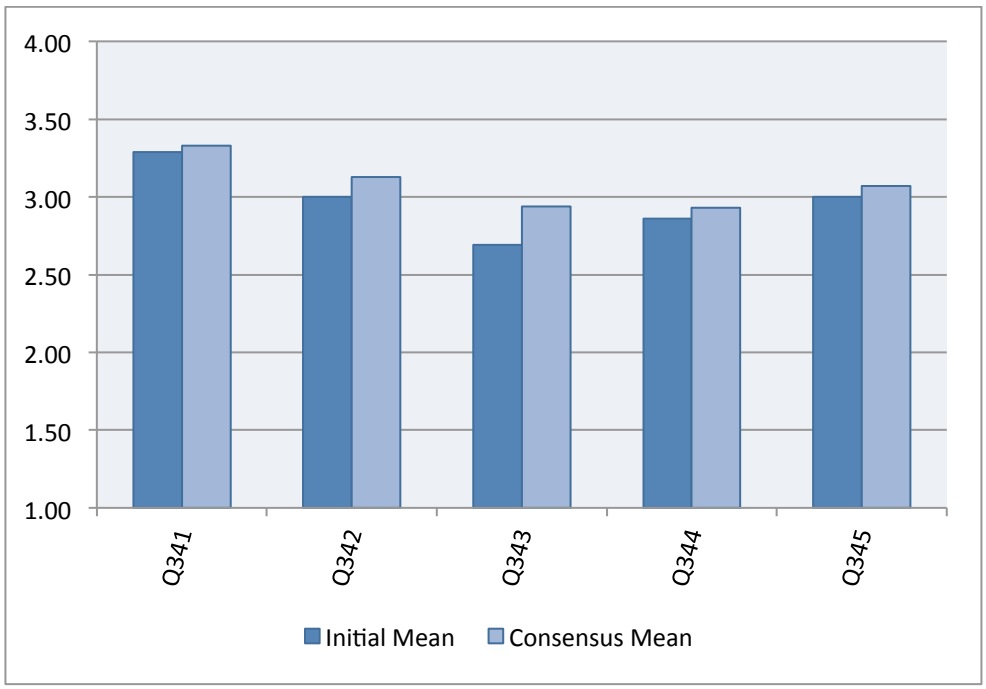

Figure 31. The Original Versus Consensus Means for Survey Area 3.4 (Now)

Consistent with the other survey areas, the metrics in Area 3.4 were also presented to the Delphi Panel to rank expected essentiality in five to ten years in the

future (Future). The original and consensus means and standard deviations for all the items related to Survey Area 3.4 (Future) appear in Table 36.

Table 36. Consensus Data for Research Question Five, Survey Area 3.4 (Future)

Survey area 3.4. What metrics can be used to determine that e-mentoring has led to increased**: sense of ownership (sense of ownership in scaling the distance education program as is felt by faculty community)?**							
Item Number	Survey Item	Initial			Consensus		
		n	Mean	SD	*n*	Mean	SD
3.4.1	The number of *faculty* initiating new practices in an e-mentoring program would be a good metric to track the sense of ownership of a distance education program.	14	3.43	.646	15	3.47	.640
3.4.2	The number of *new practices* suggested by faculty in the e-mentoring program would be a good metric to track the sense of ownership of a distance education program.	15	3.07	.884	16	3.13	.885
3.4.3	The number of *faculty* teaching additional distance education courses after participating in an e-mentoring program would be a good metric to track the sense of ownership of a distance education program.	16	2.56	.892	16	2.88	.719
3.4.4	The number of *contributions* by faculty to a Community of Practice repository would be a good metric to track the sense of ownership of a distance education program.	13	2.85	.987	14	2.79	.975
3.4.5	The number of *coaches* readily offering learning objectives and other contributions to the Community of Practice repository would be a good metric to track the sense of ownership of a distance education program.	12	3.17	.937	14	3.07	.917
Mean: 3.5 – 4.0 Very Important, 2.5 – 3.49 Important, 1.50 – 2.49 Helpful, 1.00 – 1.49 Unimportant							

There were a few changes in consensus means in this group of survey items, but all of the ranks remained in the Important range. The highest ranked metric remained survey item 3.4.1, which proposed the number of *faculty* initiating new practices in an e-

mentoring program as a good metric to track sense of ownership of a distance education program. The consensus mean for expected essentiality in the Future context was higher than in the current context (*M* = 3.33 Now, *M* = 3.47 Future). Items 3.4.2, regarding the number of *new practices* suggested by faculty in an e-mentoring program, and 3.4.5, the number of *coaches* readily offering learning objectives and other contributions to the CoP, were the same consensus mean (M = 3.13 and M = 3.07, respectively). The remaining two items, regarding the number of *faculty* teaching additional distance education courses after participating in an e-mentoring program, and the number of *contributions* by faculty to a CoP repository, showed decreased consensus means for the Future context when compared to the current context (Now). The original versus consensus means for Survey Area 3.4 (Future) are displayed as a bar chart shown in Figure 32.

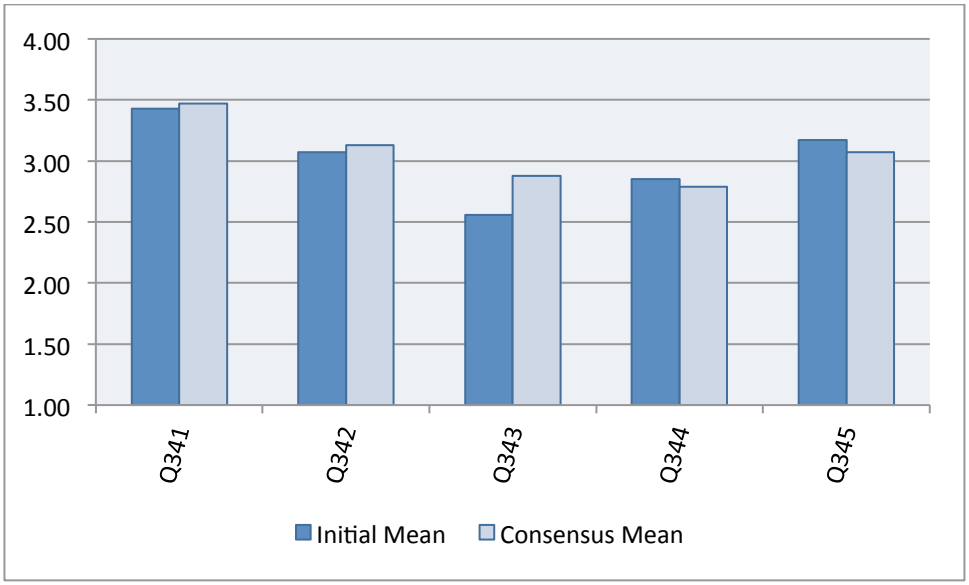

Figure 32. The Original Versus Consensus Means for Survey Area 3.4 (Future)

A nonparametric Related-Samples Wilcoxon Signed Rank Test was run on the means for the "Now" findings versus the "Future" means. A null hypothesis that the median of differences between Means (Future) and Means (Now) is equal to zero was adopted. The Wilcoxon result was reported by SPSS as $p = .593$ with a specified alpha level of 0.05, a finding which is not statistically significant. Therefore, the null hypothesis is retained. The SPSS Hypothesis Test Summary appears in Appendix M.

The consensus means, displayed in the context of Now versus Future values, for all the items related to Survey Area 3.4 appear in Figure 33. A complete listing of consensus frequencies is provided in Appendix L.

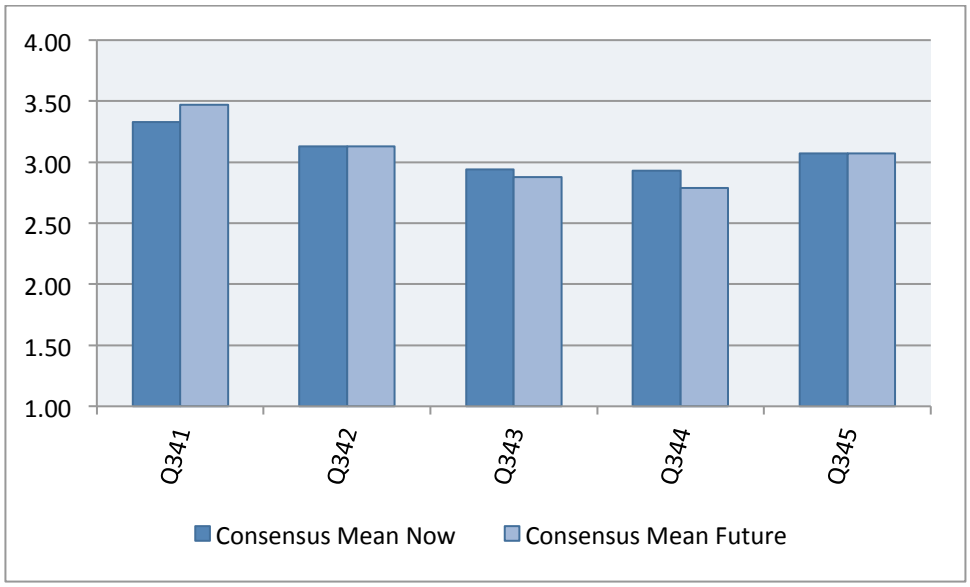

Figure 33. The Now Versus Future Consensus Means for Survey Area 3.4

Summary

Three successive rounds of a rigorous survey were provided to a Delphi Panel of distance education experts. The experts ranked the essentiality of each item in terms of the present time and then again from the perspective of five to ten years in the future. The first round of the survey contained a total number of 146 survey items covering both the current and future perspectives. Feedback from the first round refined the original questions, which were based on this researcher's literature review and vetted by a Pilot Panel. A total of twenty new questions were added to the Second Round survey based on the Delphi Panel feedback to Round One. As a result, sixteen Delphi panelists reviewed a total of 186 survey items. The statistical results of the responses were presented and reviewed in the previous sections. Conclusions based on that information are documented in Chapter V of this dissertation.

CHAPTER V

SUMMARY OF FINDINGS,

CONCLUSIONS AND RECOMMENDATIONS

Introduction

Institutions of higher education are leveraging technology to explore new options for delivery of coursework (Reif, 2013). Recent research has begun to investigate the appropriate infrastructure that is needed to support faculty and students engaged in online learning (Meyer & Barefield, 2009). One recommended support process was a program of peer-to-peer mentoring. While much has been written on traditional mentoring programs, investigation into the use of technology-supported mentoring, called e-mentoring, has only more recently been undertaken (Nafukho, et al., 2010).

The purpose of this research was to study the impact of a peer faculty e-mentoring learning community as it relates to the growth of a distance education program. This study extended Coburn's conceptualization of scaling, which she described as being comprised of four interrelated dimensions: *Depth, Sustainability, Spread,* and *Shift in ownership* (Coburn, 2003).

Summary of Study Methodology and Procedures

This research employed a Delphi study to determine a consensus of opinion regarding procedures and practices in the context of e-mentoring for a peer faculty learning community that would lead to successful scaling by providing support for

faculty in the areas of preparation, collegiality, and professional development. A pool of faculty members was purposefully selected to participate in the study. The faculty members who volunteered were experienced online educators. Institutions represented in the study included a tier one research institution, an emerging research university, campuses of a state university system, a four year college and a community college.

A small pilot group was selected from the pool to refine and enhance the initial survey questionnaire, which was based on this researcher's literature review. The refined survey was distributed to the Delphi Panel to rank the essentiality of each survey item on a scale of 1 to 4, ranging from Unimportant to Very Important, respectively. The option of "No Judgment" was also provided for each item. Participants were also asked to provide comments to further refine the survey or offer new items to include in the survey. Descriptive statistics were calculated on the results of each round to determine consensus. As a consequence of the first round, twenty new items were added to the survey. All items reached consensus by the third round.

Summary of Findings: Research Question One

Research Question One sought to discover what attributes of an e-mentoring program for faculty engaged in teaching distance education classes would lead to perceived effectiveness by coaches and practitioners. As a result of Round One, the additional comments of the participants illuminated an area of the survey that resonated with the participants but had not been adequately addressed in the original survey. That area of interest pointed to the importance of the department culture. As a consequence, eight survey items were added to the survey to address that topic. The following survey

items were considered to be Very Important or Important and produced some of the highest consensus means for this question:

- 1.1.c.4, *The culture of faculty and administration within the department values distance education.* (*M* = 3.56, *SD* = 0.512 Now).
- 1.1.c.5, *The department offers training on topics such as content delivery, teaching modalities, and online instructional strategies.* (*M* = 3.50, *SD* = 0.516 Now).
- 1.1.c.3, *The department values online teaching in tenure and promotion decisions.* (*M* = 3.44, *SD* = 0.727 Now).
- 1.1.c.2, *The department provides training and resources (books, articles, online forums) on how to be an effective coach.* (*M* = 3.25, *SD* =0.577 Now).

Interestingly, the highest ranked item was:

- 1.1.b.5, *Technical support is made available to support the participant in an e-mentoring session.* (*M* = 3.75, *SD* =0.447 Now, and *M* = 3.56, *SD* = 0.512 Future).

Technical support ranked higher in essentiality than did compensation from either the coach or the participant viewpoint and was as important as departmental leadership in support of e-mentoring from both the coach and practitioner perspectives (1.1.a.6 and 1.1.b.6). Department leadership ranked higher than faculty responsibility for success. Making funds available to support communication channels was ranked closely with these two areas. While evaluation of e-mentoring was considered important and the use of a rubric even more so, consistently the panel found it more important that results be shared with the coach or practitioner; being reported to the department was only ranked as Helpful.

Summary of Findings: Research Question Two

The second research question sought to discover the formal and informal activities or organizational processes related to e-mentoring would provide for preparation for teaching online.

The most highly ranked survey items in this area concerned formal processes to teach faculty about accessibility issues (2.1.6), ranked Very Important, and about copyright (2.1.5) and intellectual property expectations (2.1.7), which was ranked as Important.

The ability of a practitioner to choose a coach because the coach has a known talent in a desired skill (2.1.3) was ranked as Important.

Summary of Findings: Research Question Three

The third research question addressed by this study was: What formal and informal activities or organizational processes related to e-mentoring would provide for collegiality?

Interestingly, considering the topic, none of the items resulted in a consensus mean in the Very Important range. Of all the topics reviewed by the Delphi Panel, the item with the highest consensus mean stated that all faculty members new to online teaching participate with a coach in an e-mentoring relationship for some period of time (2.2.1). The survey item ranked closest to previous statement stated that all faculty are encouraged to participate as practitioners in a Community of Practice (2.2.2).

This survey area also presented a short series of related questions regarding the ability of practitioners to meet and greet during the academic period (2.2.4 – 2.2.6). A formal approach to meet and greet online at the start of the academic period and the opportunity to meet and greet periodically online were ranked very closely together in the Important range. In addition, the ability to meet and greet *online at the start* of the academic period was perceived to increase in importance in the Future perspective.

These survey items were ranked higher than a formal approach to meet *in person* at the start of the academic period, which was ranked as Helpful.

Summary of Findings: Research Question Four

The fourth research question for this Delphi Study was: What formal and informal activities or organizational processes related to e-mentoring would provide for professional development?

In this survey area, the items with the highest ranking concerned the open sharing of exemplars (2.3.1) and providing online training materials (2.3.6). Interestingly, the lowest ranked survey item in this group dealt with offering incentives to tenured faculty to participate in an e-mentoring relationship, which was ranked in the Helpful range.

Summary of Findings: Research Question Five

The fifth and final question addressed by this research extended Coburn's (2003) research on scale. Coburn's research on scaling had revealed the four facets of scale, specifically *spread, depth, sustainability,* and *change in sense of ownership*. The survey items for Research Question Five sought expert opinion on metrics that could be used to determine that e-mentoring attained increased spread, depth, sustainability, and sense of ownership in a distance education program. Therefore, each sub-area of survey questions (3.1 – 3.4) dealt with one of Coburn's (2003) facets of scaling.

All of the metrics surveyed in these areas were ranked either Important or Helpful. None of the survey items were found to be either Essential or Unimportant. In regard to metrics for increased spread, the Delphi Panel ranked the number of semester-credit hours delivered online (3.1.5), the number of faculty delivering distance education

classes (3.1.2), the number of online courses being taught (3.1.1), and the amount of money being generated by online classes (3.1.6) among the highest. Interestingly, job satisfaction (3.1.3) and improved, average student evaluations (3.1.7) ranked among the lowest. As for depth (internalization of the goal as demonstrated by participative behavior), the Delphi Panel ranked faculty acceptance of delivering education online (3.2.1) as the best metric of those surveyed for the depth of a distance education program. As for sustainability, i.e. the use of e-mentoring has taken hold, the Delphi Panel's highest consensus mean went to the metric of the number of formerly "coached" practitioners acting as coaches for others (3.3.5). Finally, for sense of ownership, the highest consensus mean was given to the metric of the number of *faculty* initiating new practices in an e-mentoring program (3.4.1). That metric's mean was followed closely by the metric for the number of *new practices* suggested by faculty in an e-mentoring program (3.4.2).

Summary of Conclusions across Dissertation Research Questions

The highest consensus means in the current perspective (Now) went to survey items that dealt with providing technology support to participants of an e-mentoring session (1.1.b.5) and department leadership in support of e-mentoring (1.1.b.6), both ranked as Very Important in the current perspective, and those survey items dealing with the department culture. Highest among culture survey items pointed to the importance of a culture of faculty and administration within the department that values distance education (1.1.c.4) and that the department offers training on topics such as content delivery, teaching modalities, and online instructional strategies (1.1.c.5). The items

about culture were added to the survey because the Delphi panelists returned so many comments as to the impact closely-held attitudes had on the scaling of distance education programs. While some of the participants said they could not rate the culture survey statements as essential (Very Important), since they were growing departments in spite of adverse culture, the lack of interest in distance education and the unwillingness to consider quality delivery of online education in professional advancement acted as a drag on the efforts of those interested in distance education. Another survey topic that received a consensus mean in the Very Important range was providing a formal process to educate faculty about accessibility issues regarding online delivery of education. All of the above items received consensus means in the Very Important range. Almost as high a consensus mean was given for a formal process to educate faculty about copyright law and intellection property expectations.

Survey items 1.1.c.4 and 1.1.c.5, referenced in the previous paragraph, remained rated as Very Important when the Delphi Panel ranked them in the context of five to ten years into the future. The importance of technology support for the e-mentoring participants remained high when this survey item was considered in the Future perspective, although its consensus mean did show some decline. In addition, the importance of the department offering training on topics such as content delivery, teaching modalities, and online instruction strategies increased in importance, with a consensus mean entering the Very Important range. One comment submitted by a Delphi Panel participant indicated that increasing focus is expected to be placed on the quality delivery of education, not just on the content mastery of the educator. That

participant likened an educator without proven teaching skills to an airline pilot with a lot of aeronautical studies but very little actual flight time. That comment seems to illuminate the increased importance placed on delivery in the future.

None of the survey items were ranked in the Unimportant range. Since the original survey items were based on this researcher's literature review and vetted by experts, it is reasonable to expect that none of the items presented to the expert panel were of such low importance as to recommend they be dropped from consideration. However, the relative rankings of the items across the spectrum from Very Important to at least Helpful should be considered of practical significance due to the validation provided by the iterative nature of the survey.

For example, survey item 3.2.7, regarding the use of the number of articles published within the department about e-mentoring in higher education as a metric to determine *depth*, had been suggested as a topic area by the Delphi Panel. However, in subsequent surveys it did not receive resounding essentiality; and, both initially and in consensus remained just above the cutoff for a metric that it should not be included. This may be due to the pressures for faculty to publish in their own areas of research.

A series of questions relating to the impact of coaching or being coached as related to tenure and promotion decisions were presented. For example, survey item 2.3.2, which stated that acting as a coach will positively impact my tenure and promotion chances, received an $M = 3.07$, $SD = 0.917$ Now and $M = 3.23$, $SD = 0.927$ Future, which was well within the Important range. However, being coached, as presented in survey item 1.1.b.16 had a consensus $M = 2.23$, $SD = 0.832$ Now and $M = 2\ .46$, $SD =$

0.877 in Future, fell far below in terms of consensus mean values and was within the Helpful range. Those means seem to indicate that it would be more valued to provide coaching than to be coached. Finally, survey item 2.2.2.a, requiring all faculty to participate in a Community of Practice, resulted in a consensus $M = 1.80$, $SD = 0.862$ Now, $M = 2.2$, $SD = 0.862$ in the Future. One of the Delphi Participants commented that not all faculty members want to mentor nor are all suited to mentoring. The panelist continued that forcing participation would adversely impact the program. That panelist concluded that having well-trained and voluntary mentors would be better.

While the importance of including coaching in tenure and promotion decisions was evident, feedback from the first survey indicated an interest in ways to motivate tenured faculty to participate. The survey question was presented in terms of incentives being offered to faculty already tenured and full professor, survey item 2.3.7. However, the mean for that item was only 2.19 at consensus. Such a mean would indicate that the panel in general only considered such an effort to be helpful overall to the scaling of a distance education program.

While the panel did indicate that communication technology funds to support e-mentoring were important, as in survey item 1.1.a.3 (M =3.25, $SD = 0.856$ Now), the Delphi Panel placed far less importance on monetary compensation for participation in an e-mentoring relationship as a coach (1.1.a.4, $M = 2.88$, $SD = 0.957$ Now and $M = 2.88$, $SD = 0.957$ Future) or a practitioner (1.1.b.4, $M = 2.38$, $SD = 1.025$ Now and $M = 2.31$, $SD = 0.946$ Future).

In a similar line of survey items, the Delphi Panel was asked to rank the essentiality of various incentives for innovation in teaching online (2.3.3 and 2.3.4). Monetary incentives were ranked as Helpful but incentives offered by way of course releases was ranked as Important from both the current and future perspectives.

The Wilcoxon analyses indicated the findings of the panel for the Future context were conservative. The comment by a panelist that so much is changing currently that it is hard to predict what the teaching environment will look like in five to ten years seemed to have been borne out by the conservative responses supplied by the Delphi Panel for the Future context.

Recommendations and Implications for the Field

Several themes emerged from this study that were considered as important by the Delphi Panel. Technology support is a very important issue for faculty. This stands out as an area of concern and essentiality for faculty engaged in distance education and would be a critical area to address for e-mentoring efforts in attempts to scale a distance education program.

Tierney (1997) wrote that technology and communication advances would "demand" that members of an organization innovate and change (p. 14). Comments submitted by some of the Delphi Panel members indicated that the clash of the status quo against innovation is currently underway. The value of distance education for the department, beyond that of an income stream, was submitted as an important area of concern. The topic of culture is a sensitive area; but it was demonstrated by several independent comments that the conflict can be a hindrance to the effort. How

successfully the department leadership contends with this issue could have a big impact on its ability to scale a distance education program.

Several comments addressed the need for faculty to become more skilled in the delivery of online education, with the expectation that skill will become increasingly important to professional development in the future. The Delphi Panel found it Very Important for departments to offer training on topics such as content delivery, teaching modalities, online instructional strategies (1.1.c.5) and accessibility issues regarding online delivery of education (2.1.6). These and the department's expectations for copyright issues (2.1.5) are areas that the Delphi Panel indicated that departments could begin to address right now.

Another area that the Delphi Panel indicated was Important was that the open sharing of exemplars be encouraged (2.3.1). This opportunity for professional development could be undertaken immediately within departments engaged in distance education.

Another area of importance for distance education programs is the metrics that can be used to judge scale of their operations. Several metrics were ranked highly by the Delphi Panel to measure scale in all of Coburn's (2003) four interrelated factors: *spread, depth, sustainability,* and *sense of ownership.* Interestingly, in light of the discussion about culture above, one of the highest ranked metrics was faculty acceptance of delivering education online (3.2.1, Depth). Another highly ranked metric was the number of formerly "coached" practitioners acting as coaches for others (3.3.5, Sustainability). These and other metrics provide administrators with mechanisms to

track their department's progress. Such metrics have are now available to administrators through this study's Delphi results.

Suggestions for Future Research

This study demonstrated that technology support is an important topic for practitioners and coaches. How best to offer the support and at what level the distance education faculty feel *supported* remains to be researched.

The topic of culture is a sensitive area. It was demonstrated by several independent comments that the conflict within departments between educators advocating for distance education and those opposed can be a hindrance to the efforts of administrators trying to grow their distance education programs. It fell outside the scope of this research to explore that area more fully; but, it remains an important, exposed area for study.

The impact of non-tenure track higher education educators on results may be an interesting area of future study. A growing number of educators in higher education are not tenure-track professionals (Moloney, 2010). As of 2013, "more than 75 percent of college and university classes are taught by non-tenure-system teachers" (Weinbaum & Page, 2014, p. 14) and adjuncts account for approximately 70 percent of instructors (June, 2014). It was pointed out in Delphi Panel feedback that the question about the importance of tenure and promotion is not germane to all institutions or for individuals not following the tenure and promotion track in tenure-granting institutions. Survey items 2.3.2 and 2.3.7 were reviewed with that input in mind. The number of participants in this study who were not affiliated with a tenure-track institution was small compared

to the overall pool, and those rankings were not found significantly to change in the means due to that factor. However, with a larger population for study, conclusions specific to tenure-track and non-tenure-track considerations regarding such topics as incentives and professional development may further emerge. This remains a topic of further study.

Another area of interest demonstrated by panelist comments dealt with the separation of some of the department factors by graduate versus undergraduate enrollment, as was pointed out that these differences could have a bearing on policies. Also, the separation of a specific academic department versus the distance education department could likewise have a bearing on issues of culture and policy.

Dissertation Study Significance and Closing Comments

This study sought to identify processes and procedures in the context of e-mentoring that will lead to successful scaling of distance education programs. The study was motivated by five research questions dealing with faculty support in the operationalized areas of preparation, collegiality and professional development (Velez, 2010) and an interest to identify metrics in those areas to assess scale. The definition of scale was based on Coburn's (2003) research that attributed *scaling* programs to entail four interrelated factors: *spread, depth, sustainability, and sense of ownership*.

The literature review for this study demonstrated that the benefits of traditional mentoring relationships, both formal and informal, have been well documented. However, the use of e-mentoring, especially to support faculty in distance education programs, has had very little investigation.

As a result of the study, a panel of distance education experts provided their consensus of opinion to illuminate the relative essentiality of processes, procedures and metrics in the context of e-mentoring. As a result of this study the work of several researchers (Coburn, 2003; Velez, 2010; Wenger, 2006) has been extended to contribute to the body of knowledge regarding successful scaling of distance education programs as a consequence of supporting the faculty engaged in the delivery of online education.

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APPENDIX A

DELPHI PANEL PARTICIPANTS

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APPENDIX B

IRB PILOT PANEL CONSENT FORM

PILOT PANEL CONSENT FORM

Project Title: Characteristics of Effective E-mentoring for Faculty to Support Scaling Distance Education: A Delphi Study.

You are invited to take part in a research study being conducted by Judith Lewis, a researcher from Texas A&M University. The information in this form is provided to help you decide whether or not to take part. If you decide to take part in the study, you will be asked to sign this consent form. If you decide you do not want to participate, there will be no penalty to you, and you will not lose any benefits you normally would have.

Why Is This Study Being Done?
The purpose of this study is to identify processes and procedures in the context of e-mentoring that will lead to successful scaling of distance education programs by providing faculty support in the following operationalized areas: preparation, collegiality, and professional development.

Why Am I Being Asked To Be In This Study?
The intent of this study is to leverage the combined expertise of a panel of distance education faculty to determine the most effective ways to use e-mentoring to support preparation, collegiality, and professional development as a mechanism to successfully scale distance education programs. Other researchers in the field of distance education administration have advocated that to get the best data, one should go to the faculty and ask *them* what they need instead of relying on purported experts to obtain such information. With that advice in mind, your input as a distance educator would be greatly appreciated.

How Many People Will Be Asked To Be In This Study?
Four to five people (panelists) will be invited to participate in this study locally. Faculty members who have taught online higher education courses are being invited to participate. Overall, a total of twenty-five people will be invited from faculty to participate in the research. Of that number, a small group of pilot panelists will be invited to refine the survey questionnaire before distribution to the panelists at large. The survey participants will be selected from the following types of institutions: a research one institution, branch campuses of a large university, a community college, and a four-year baccalaureate institution.

What Are the Alternatives to being in this study?
Participation is voluntary. The only alternative to being in the study is not to participate.

What Will I Be Asked To Do In This Study?
You will be asked to participate in a Delphi Study. The Delphi Method is a qualitative research method that employs a series of survey questionnaires posed to a panel of experts to ascertain collective knowledge on a particular subject by determining a consensus. In this case, the area of research for which consensus is desired is for policies and practices in connection with e-mentoring. Each survey will be comprised of a series of Likert-scale questions with the ability to provided comments. The Likert-scale results of each round are statistically analyzed to determine the consensus. Each survey is expected to take 30 - 45 minutes. Consensus is usually determined in 3 to 4 rounds of survey.

Version Date: 10-21-2012

Texas A&M University IRB Approval	From: 11-15-2012	To: 10-30-2013
IRB Protocol # 2012-0565	Authorized by: AL	

Your expertise is being solicited for this study in a special way. You will be among a small group of pilot panelists being asked to refine the survey questionnaire and offer seminal, forward-looking topics for consensus. This review will take place before the first round survey distribution to the panelists at large.

Are There Any Risks To Me?
The things that you will be doing are no greater than risks than you would come across in everyday life.

Will There Be Any Costs To Me?
Aside from your time, there are no costs for taking part in the study.

Will I Be Paid To Be In This Study?
You will not be paid for being in this study.

Will Information From This Study Be Kept Private?
The records of this study will be kept private. No identifiers linking you to specific responses for this study will be included in any sort of report that might be published. Research records will be stored securely and only the researcher and her dissertation chair will have access to the records.

Information about you will be stored in locked file cabinet; computer files protected with a password. This consent form will be filed securely in a locked file cabinet.

People who have access to your information include the Principal Investigator, Dr. Christine Stanley, and the researcher, Judith Lewis. Entities such as the Texas A&M University Human Subjects Protection Program may access your records to make sure the study is being run correctly and that information is collected properly.

Information about you and related to this study will be kept confidential to the extent permitted or required by law.

Who may I Contact for More Information?
You may contact the Judith Lewis at [redacted] or ([redacted]) [redacted] if you have any questions or concerns. You may also contact Christine A. Stanley, Ph.D. Dissertation Chair for this dissertation study, to tell him/her about a concern or complaint about this research at [redacted] or ([redacted]) [redacted].

For questions about your rights as a research participant, or if you have questions, complaints, or concerns about the research, you may call the Texas A&M University Human Subjects Protection Program office at (979) 458-4067 or irb@tamu.edu.

What if I Change My Mind About Participating?
This research is voluntary and you have the choice whether or not to be in this research study. You may decide to not begin or to stop participating at any time. If you choose not to be in this study or stop being in the study, there will be no effect on you.

Version Date: 10-21-2012

Texas A&M University IRB Approval	From: 11-15-2012	To: 10-30-2013
IRB Protocol # 2012-0565	Authorized by: AL	

Project Title: Characteristics of Effective E-mentoring for Faculty to Support Scaling Distance Education: A Delphi Study.

Demographic Data:

Years of experience teaching in higher education? _____

Years of experience teaching online education classes in higher education? _____

Most advanced degree attained? _____

Age range – please circle (voluntary, optional):

20- 30 yrs 30 -40 years 40-50 years 50 -60 years 60 + years

Name, Title, and Institutional affiliation as you would like it to appear on the credits page (voluntary, optional).

_____

_____

_____

_____

Thank you again for your willingness to participate.

Version Date: 10-21-2012

Texas A&M University IRB Approval	From: 11-15-2012	To: 10-30-2013
IRB Protocol # 2012-0565	Authorized by: AL	

Project Title: Characteristics of Effective E-mentoring for Faculty to Support Scaling Distance Education: A Delphi Study.

STATEMENT OF CONSENT

I agree to be in this study and know that I am not giving up any legal rights by signing this form. The procedures, risks, and benefits have been explained to me, and my questions have been answered. I know that new information about this research study will be provided to me as it becomes available. I can ask more questions if I want. A copy of this entire consent form will be given to me.

_____ _____

Participant's Signature Date

_____ _____

Printed Name Date

LANGUAGE FOR ACKNOWLEDGING PARTICIPANT IN THE CREDITS APPENDIX:

The researchers will include a credits appendix in the dissertation that will list the names and institutional affiliation of the Delphi panel participants. Your name and institution will appear only if you give your permission to do so. Even if you provide this authorization, your identity will not be directly linked with your responses in the dissertation. Indicate your decision below by initialing in the space provided.

_____ I give my permission for my name and institution to appear in the credits appendix.

_____ I do not give my permission for my name and institution to appear in the credits appendix.

INVESTIGATOR'S AFFIDAVIT:

Either I have or my agent has carefully explained to the participant the nature of the above project. I hereby certify that to the best of my knowledge the person who signed this consent form was informed of the nature, demands, benefits, and risks involved in his/her participation.

_____ _____

Signature of Presenter Date

_____ _____

Printed Name Date

Version Date: 10-21-2012

Texas A&M University IRB Approval	From: 11-15-2012	To: 10-30-2013
IRB Protocol # 2012-0565	Authorized by: AL	

APPENDIX C

IRB DELPHI PANEL CONSENT FORM

DELPHI PANEL CONSENT FORM

Project Title: Characteristics of Effective E-mentoring for Faculty to Support Scaling Distance Education: A Delphi Study.

You are invited to take part in a research study being conducted by Judith Lewis, a researcher from Texas A&M University. The information in this form is provided to help you decide whether or not to take part. If you decide to take part in the study, you will be asked to sign this consent form. If you decide you do not want to participate, there will be no penalty to you, and you will not lose any benefits you normally would have.

Why Is This Study Being Done?
The purpose of this study is to identify processes and procedures in the context of e-mentoring that will lead to successful scaling of distance education programs by providing faculty support in the following operationalized areas: preparation, collegiality, and professional development.

Why Am I Being Asked To Be In This Study?
You are being asked to be in this study because the intent of this study is to leverage the combined expertise of a panel of distance education faculty to determine the most effective ways to use e-mentoring to support preparation, collegiality, and professional development as a mechanism to successfully scale distance education programs. Other researchers in the field of distance education administration have advocated that to get the best data, one should go to the faculty and ask *them* what they need instead of relying on purported experts to obtain such information. With that advice in mind, your input as a distance educator would be greatly appreciated.

How Many People Will Be Asked To Be In This Study?
Four to five people (panelists) will be invited to participate in this study locally. Faculty members who have taught online higher education courses are being invited to participate. Overall, a total of twenty-five people will be invited from faculty to participate in the research. Of that number, a small group of pilot panelists will be invited to refine the survey questionnaire before distribution to the panelists at large. The survey participants will be selected from the following types of institutions: a research one institution, branch campuses of a large university, a community college, and a four-year baccalaureate institution.

What Are the Alternatives to being in this study?
Participation is voluntary. The only alternative to being in the study is not to participate.

What Will I Be Asked To Do In This Study?
You will be asked to participate in a Delphi Study. The Delphi Method is a qualitative research method that employs a series of survey questionnaires posed to a panel of experts to ascertain collective knowledge on a particular subject by determining a consensus. In this case, the area of research for which consensus is desired is for policies and practices in connection with e-mentoring. Each survey will be comprised of a series of Likert-scale questions with the ability to provided comments. The Likert-scale results of each round are statistically analyzed to determine the consensus. Your participation in each survey is expected to take 30 - 45 minutes. Consensus is usually determined in 3 to 4 rounds of survey.

Version Date: 10-21-2012

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Are There Any Risks To Me?
The things that you will be doing are no greater than risks than you would come across in everyday life.

Will There Be Any Costs To Me?
Aside from your time, there are no costs for taking part in the study.

Will I Be Paid To Be In This Study?
You will not be paid for being in this study.

Will Information From This Study Be Kept Private?
The records of this study will be kept private. No identifiers linking you to specific responses for this study will be included in any sort of report that might be published. Research records will be stored securely and only the researcher and her dissertation chair will have access to the records.

Information about you will be stored in locked file cabinet; computer files protected with a password. This consent form will be filed securely in a locked file cabinet.

People who have access to your information include the Principal Investigator, Dr. Christine Stanley, and the researcher, Judith Lewis. Entities such as the Texas A&M University Human Subjects Protection Program may access your records to make sure the study is being run correctly and that information is collected properly.

Information about you and related to this study will be kept confidential to the extent permitted or required by law.

Who may I Contact for More Information?
You may contact the Judith Lewis at [redacted] or ([redacted]) [redacted] if you have any questions or concerns. You may also contact Christine A. Stanley, Ph.D. Dissertation Chair for this dissertation study, to tell him/her about a concern or complaint about this research at [redacted] or ([redacted]) [redacted].

For questions about your rights as a research participant, or if you have questions, complaints, or concerns about the research, you may call the Texas A&M University Human Subjects Protection Program office at (979) 458-4067 or irb@tamu.edu.

What if I Change My Mind About Participating?
This research is voluntary and you have the choice whether or not to be in this research study. You may decide to not begin or to stop participating at any time. If you choose not to be in this study or stop being in the study, there will be no effect on you.

Version Date: 10-21-2012

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Project Title: Characteristics of Effective E-mentoring for Faculty to Support Scaling Distance Education: A Delphi Study.

Demographic Data:

Years of experience teaching in higher education? _____

Years of experience teaching online education classes in higher education? _____

Most advanced degree attained? _____

Age range – please circle (voluntary, optional):

20- 30 yrs 30 -40 years 40-50 years 50 -60 years 60 + years

Name, Title, and Institutional affiliation as you would like it to appear on the credits page (voluntary, optional).

_____

_____

_____

_____

Thank you again for your willingness to participate.

Version Date: 10-21-2012

Texas A&M University IRB Approval	From: 11-15-2012	To: 10-30-2013
IRB Protocol # 2012-0565	Authorized by: AL	

Project Title: Characteristics of Effective E-mentoring for Faculty to Support Scaling Distance Education: A Delphi Study.

STATEMENT OF CONSENT

I agree to be in this study and know that I am not giving up any legal rights by signing this form. The procedures, risks, and benefits have been explained to me, and my questions have been answered. I know that new information about this research study will be provided to me as it becomes available. I can ask more questions if I want. A copy of this entire consent form will be given to me.

_____ _____

Participant's Signature Date

_____ _____

Printed Name Date

LANGUAGE FOR ACKNOWLEDGING PARTICIPANT IN THE CREDITS APPENDIX:

The researchers will include a credits appendix in the dissertation that will list the names and institutional affiliation of the Delphi panel participants. Your name and institution will appear only if you give your permission to do so. Even if you provide this authorization, your identity will not be directly linked with your responses in the dissertation. Indicate your decision below by initialing in the space provided.

_____ I give my permission for my name and institution to appear in the credits appendix.

_____ I do not give my permission for my name and institution to appear in the credits appendix.

INVESTIGATOR'S AFFIDAVIT:

Either I have or my agent has carefully explained to the participant the nature of the above project. I hereby certify that to the best of my knowledge the person who signed this consent form was informed of the nature, demands, benefits, and risks involved in his/her participation.

_____ _____

Signature of Presenter Date

_____ _____

Printed Name Date

Version Date: 10-21-2012

Texas A&M University IRB Approval	From: 11-15-2012	To: 10-30-2013
IRB Protocol # 2012-0565	Authorized by: AL	

APPENDIX D

PILOT PANEL INFORMATION DOCUMENT

December 9, 2012

Dear Delphi Pilot Panelist,

The survey that is used in a Delphi study is prepared and validated by a pilot panel. It is common for the pilot panelists in a Delphi Study to expand the topics during review.

Attached is the draft of the Delphi survey. The questions that are included on the survey originated from the literature review. The Pilot Panel for the Delphi Study validates the survey instrument, which includes panelist review and enhancement. For the purposes of review, please provide input that will help me refine the clarity of the questions so that the Delphi participants will experience minimal confusion. In addition to helping me improve the effectiveness of the survey, I invite you to bring your expertise to bear by suggesting topics for the survey that may have been overlooked. Your experience in the field could contribute previously unpublished topics that will improve the outcome of the study.

The attached survey is formatted as it would be presented to a Delphi participant. I am not soliciting your ranked response to the statements. Rather, please comment on the readability of each statement in context to the research question and consider the efficacy of the ranking scale for that statement.

Please return the survey in .doc or .docx format by email within 7 days if possible so that I can collate your feedback with the other panelists' comments. (In case you should have difficulty opening the Word document, I have also attached it as a PDF.) If you prefer to mail your feedback, please notify me by email so that I can watch for your responses by postal mail.

I plan to update the survey based on your comments, including suggested new topics, and send it out to you for your final review before initiating the first round with the Delphi panel.

Thank you again for participating in my dissertation research. I am truly appreciative of the time, effort and expertise you have committed to my study. If you have any questions, please feel free to email or phone me.

Best regards,
Judith

APPENDIX E

SURVEY FOR PILOT PANEL REVIEW DOCUMENT

Rankings: A ranking of **1** denotes **I Strongly Disagree** with the survey item**,** a ranking of **2** indicates **I Somewhat Disagree** with the survey item, a ranking of **3** indicates **I Somewhat Agree** with the survey item**,** and a ranking of **4** indicates **I Strongly Agree** with the survey item**.**				
Number	Research Question	Survey Item	Ranking: Now	Ranking: In 5 yrs
1.1	**What attributes of an e-mentoring program for faculty in distance education lead to perceived effectiveness by coaches and practitioners?**	1.1.1. Having a choice of my coach is critical.		
		1.1.2. Having time in my schedule to coach a colleague virtually is critical.		
		1.1.3. Making communication technology allowances available (e.g. SMS service, webcams, cell phone and long distance allowances) are critical.		
		1.1.4. Compensation for coaching is critical.		
		1.1.5. Technical support for coaching is critical.		
		1.1.6. Departmental leadership in support of coaching is critical.		
		1.1.7. The practitioner should evaluate online interactions.		
		1.1.8. If interactions are evaluated by the practitioner, they should be reported the department administration.		
		1.1.9. The coach should evaluate online interactions.		
		1.1.10. If interactions are evaluated by the coach, they should be reported the department administration.		
		1.1.11. There should be multiple technology channels available to faculty to support online coaching.		
		1.1.12. A member of the department should have responsibility for the success of the e-mentoring program.		
		Please add any additional attributes you feel would lead to		

		perceived effectiveness:		

Rankings: A ranking of **1** denotes **I Strongly Disagree** with the survey item**,** a ranking of **2** indicates **I Somewhat Disagree** with the survey item, a ranking of **3** indicates **I Somewhat Agree** with the survey item**,** and a ranking of **4** indicates **I Strongly Agree** with the survey item**.**				
Number	Research Question	Survey Item	Ranking: Now	Ranking: In 5 yrs
2.1	**What formal or informal activities or organizational processes related to e-mentoring would provide preparation for teaching online?**	2.1.1. Assigning a coach to an individual practitioner would be most beneficial.		
		2.1.2. Allowing a practitioner to choose his/her own dedicated coach would be most beneficial.		
		2.1.3. Allowing a practitioner to choose a coach for a particular project who has known talent in a desired skill would be most beneficial.		
		Please add any additional formal or informal processes you feel would provided preparation for teaching online:		

Rankings: A ranking of **1** denotes **I Strongly Disagree** with the survey item**,** a ranking of **2** indicates **I Somewhat Disagree** with the survey item, a ranking of **3** indicates **I Somewhat Agree** with the survey item**,** and a ranking of **4** indicates **I Strongly Agree** with the survey item**.**				
Number	Research Question	Survey Item	Ranking: Now	Ranking: In 5 yrs
2.2	**What formal and informal activities or organizational processes related to e-mentoring would provide: collegiality?**	2.2.1. Providing a formal opportunity for practitioners to meet and greet online at the start of the academic period would be most beneficial.		
		2.2.2. Allowing practitioners to participate only when they have a question would be most effective.		
		2.2.3. Providing an opportunity for practitioners to meet and greet in person at the start of the academic period would be most beneficial.		
		2.2.4. Providing an opportunity for practitioners to meet and greet in person periodically during the academic period would be most beneficial.		
		Please add any additional formal or informal processes you feel would provided collegiality:		

Rankings: A ranking of **1** denotes **I Strongly Disagree** with the survey item**,** a ranking of **2** indicates **I Somewhat Disagree** with the survey item, a ranking of **3** indicates **I Somewhat Agree** with the survey item**,** and a ranking of **4** indicates **I Strongly Agree** with the survey item**.**				
Number	Research Question	Survey Item	Ranking: Now	Ranking: In 5 yrs
2.3.	**What formal and informal activities or organizational processes related to e-mentoring would provide: professional development?**	2.3.1. Open sharing of exemplars of work is critical.		
		2.3.2. Acting as a coach will positively impact my tenure and promotion chances.		
		I2.3.3. Innovation is incentivized monetarily.		
		2.3.4. Applying new tools and skills as a practitioner will positively impact my tenure and promotion chances.		
		2.3.5. Online training materials are critical.		
		Please add any additional formal or informal processes you feel would provide for professional development:		

Rankings: A ranking of **1** denotes **I Strongly Disagree** with the survey item**,** a ranking of **2** indicates **I Somewhat Disagree** with the survey item, a ranking of **3** indicates **I Somewhat Agree** with the survey item**,** and a ranking of **4** indicates **I Strongly Agree** with the survey item**.**				
Number	Research Question	Survey Item	Ranking: Now	Ranking: In 5 yrs
3.1.	**What metrics can be used to determine that e-mentoring has led to increased: spread (growth in size and outreach)?**	3.1.1. The number of courses taught is a good metric to track the spread of a distance education program.		
		3.1.2. The number of faculty delivering distance education classes is a good metric to track the spread of a distance education program.		
		3.1.3. Job satisfaction reported by faculty delivering distance education classes is a good metric to track spread of a distance education program.		
		Please add any metrics you feel could determine that e-mentoring has led to increased spread:		

Rankings: A ranking of **1** denotes **I Strongly Disagree** with the survey item**,** a ranking of **2** indicates **I Somewhat Disagree** with the survey item, a ranking of **3** indicates **I Somewhat Agree** with the survey item**,** and a ranking of **4** indicates **I Strongly Agree** with the survey item**.**				
Number	Research Question	Survey Item	Ranking: Now	Ranking: In 5 yrs
3.2.	**What metrics can be used to determine that e-mentoring has led to increased: depth (internalization of the goal as demonstrated by participative behavior)?**	3.2.1. Faculty acceptance of delivering education online would be a good metric to track the depth of a distance education program.		
		3.2.2. Number of faculty participating as a coach in an e-mentoring program would be a good metric to track the depth of a distance education program.		
		3.2.3. Number of faculty participating as a practitioner in an e-mentoring program would be a good metric to track the depth of a distance education program.		
		3.2.4. Number of faculty providing exemplars as part of a CoP/CoI in an e-mentoring program would be a good metric to track the depth of a distance education program.		
		3.2.5. Number of exemplars contributed by faculty to an online repository as part of a CoP/CoI in an e-mentoring program would be a good metric to track the depth of a distance education program.		
		Please add any metrics you feel could determine that e-mentoring has led to increased depth:		

Rankings: A ranking of **1** denotes **I Strongly Disagree** with the survey item**,** a ranking of **2** indicates **I Somewhat Disagree** with the survey item, a ranking of **3** indicates **I Somewhat Agree** with the survey item**,** and a ranking of **4** indicates **I Strongly Agree** with the survey item**.**				
Number	Research Question	Survey Item	Ranking: Now	Ranking: In 5 yrs
3.3.	**What metrics can be used to determine that e-mentoring has led to increased: sustainability (use of e-mentoring practice had taken hold in the faculty community of practice to help scale distance education program)?**	3.3.1. Number of faculty volunteering as a coach in an e-mentoring program would be a good metric to track the sustainability of a distance education program.		
		3.3.2. Number of faculty inviting other faculty to participate in an e-mentoring program would be good metric to track the sustainability of a distance education program.		
		Please add any metrics you feel could determine that e-mentoring has led to sustainability:		

Rankings: A ranking of **1** denotes **I Strongly Disagree** with the survey item**,** a ranking of **2** indicates **I Somewhat Disagree** with the survey item, a ranking of **3** indicates **I Somewhat Agree** with the survey item**,** and a ranking of **4** indicates **I Strongly Agree** with the survey item**.**

Number	Research Question	Survey Item	Ranking: Now	Ranking: In 5 yrs
3.4.	**What metrics can be used to determine that e-mentoring has led to increased: sense of ownership (sense of ownership in scaling the distance education program as is felt by faculty community)?**	3.4.1. Number of faculty initiating new practices in an e-mentoring program would be a good metric to track the sense of ownership of a distance education program.		
		3.4.2. Number of new practices suggested by faculty in the e-mentoring program would be a good metric to track the sense of ownership of a distance education program.		
		Please add any metrics you feel could determine that e-mentoring has led to increased sense of ownership:		

Please add any additional topics you feel should be included in the survey for this study or comments you would like to share with me about the survey. Please indicate with which Research Question your additional items should be grouped.

Thank you!

Judith Lewis

APPENDIX F

ROUND ONE INSTRUCTIONS

Characteristics of Effective E-mentoring for Faculty to Support Scaling Distance Education: A Delphi Study

INSTRUCTIONS:

Purpose and Method:

You are being asked to participate in a Delphi Study. The Delphi Technique is a qualitative methodology to build a consensus of opinion from a panel of experts. Consensus is based on a series of rounds in which a panel of experts responds to questionnaires. Their responses are then analyzed and grouped by the researcher. The summary of the results of each round is returned to the panel for their feedback, at which time they are at liberty to change their original response. This is repeated for three, sometimes four, rounds until a consensus on key topics is achieved.

The goal of the study will be to determine a consensus of opinion regarding procedures and practices for a peer faculty e-mentoring program in a learning community that would affect scaling a distance education program by providing support for faculty in the operationalized areas of preparation, collegiality, and professional development. For the purposes of this research, the definition of *distance education* will draw from work published by Michael G. Moore, who pointed out that this term describes a wide array of programs with varying degrees of "distance" involved, from very little *distance* to fully online classes. The important aspect of distance education for my research is that it a different teaching paradigm than classroom teaching and thus offers opportunities to learn and share new techniques for teaching.

Terms and Definitions:

Research published by C. E. Coburn in 2003 synthesized 'scale' literature to form a framework of scalability that went beyond numbers to include the qualitative aspects of success, as reflected in four dimensions: spread, depth, sustainability, and shift. The more traditional connotation of scale, that of being related to larger numbers (of students, modules, classes), Coburn denoted by the term *Spread*. By *depth,* Coburn described internalizing the goal as manifested in participative social interaction. The notion that the underlying momentum of the early effort had taken hold for the long term was referred to as *Sustainability*. Finally, the term *Shift* was used to describe the behavioral change from being an externally motivated process to an internally derived ownership that generates its own momentum.

The term 'e-mentoring' refers to a nontraditional form of mentoring, specifically a mentoring relationship that is supported by the use of computer mediated communication (CMC). Examples of CMC include email, listserv lists, chat, webcam, and conferencing software, among others. For the purposes of this study, 'e-mentoring' is used to refer to relationships that are primarily, but not exclusively, supported by CMC. While the literature points out that current traditional mentoring includes some

form of CMC support, *e-mentoring* refers to primary support of the mentoring relationship through electronic means.

For the purposes of this research, I will use two terms to refer to this new type of relationship in a peer faculty environment. Historically, the terms of mentor/mentee or mentor/protégée have certain connotations that are not appropriate for a peer-mentoring program. Therefore, these surveys will refer to the coach/practitioner relationship as one in which one peer in the practice of distance education coaches another in a particular skill to enhance the ease of practice for a fellow practitioner.

Ranking and Reporting:

You will be presented with a digital survey in Microsoft Word form. In each of the key areas, you will be asked to rank each attribute or process twice in terms of its perceived importance. Using the dropdown box by each survey item, please rank each item once in the context of current distance education programs and then again for how you perceive these same key areas will be of importance in 5 to 10 years.

You will be asked to rank each item on a scale of 1 to 4:

"**4**" represents that the concept or statement is "**Very Important**";
"**3**" represents that the concept or statement is "**Important**";
"**2**" represents that the concept or statement is "**Helpful**";
"**1**" represents that the concept or statement is "**Unimportant".**
"**0**" is reserved for items the panelist reports as "**No Judgment".**

In the textboxes after each key area, please add any new process, policy, or attribute that you deem important to that concept. Please rank those new ideas with the same ranking scale (current and future) as you did for those survey statements provided. Additional space is provided at the end of each section. Feel free to offer any comments on the wording of any survey entry or offer any additional items for the survey in the textbox on the last page. Please be sure to include the reference number of the item when adding comments.

Please submit the completed survey within two weeks from the time you are emailed the form. You can complete the survey digitally by saving your dropdown selections and comments on your local computer using the Microsoft Word "Save As" command. You can then email me that resulting document (to @); or, you can print off the document, complete it by hand, and return the scanned document to me by email. Alternatively, you can send the hardcopy results by postal mail (to Judith Lewis at , ,). Please feel free to contact me if would like to obtain any additional information or clarification for your response.

Many thanks for contributing your time and expertise, the results of which I hope

will benefit future growing online departments.

Regards,

Judith H. Lewis, MS, PMP
PhD Student in Higher Education Administration
Texas A&M University, College Station, TX

APPENDIX G

ROUND ONE SURVEY

Delphi Study: Round 1
Survey for Delphi Panel

Rankings:

- a ranking of **4** denotes the survey item is **Very Important**
- a ranking of **3** indicates the survey item is **Important but not essential,**
- a ranking of **2** indicates the survey item is **Helpful but not very important,**
- a ranking of **1** indicates an item is **Unimportant and should not be included,**
- a ranking of **0** indicates the survey participant reports **No Judgment** regarding the item.

Survey area 1.1.a.: What attributes of an e-mentoring program for faculty in distance education lead to perceived effectiveness by ***coaches***?

Survey Item:	Importance: Now	Anticipated Importance: In 5-10 years
1.1.a.1. As a coach, I am able to choose the practitioner I will e-mentor.	0 - No Judgment	0 - No Judgment
1.1.a.2. Time is provided in my schedule to coach a colleague using predominantly online methods.	0 - No Judgment	0 - No Judgment
1.1.a.3. Communication technology funds are available (e.g. SMS service, webcams, cell phone and long distance allowances) to support the coaching.	0 - No Judgment	0 - No Judgment
1.1.a.4. Compensation is made available for coaching.	0 - No Judgment	0 - No Judgment
1.1.a.5. Technical support is made available for coaching.	0 - No Judgment	0 - No Judgment
1.1.a.6. Departmental leadership in support of coaching is evident.	0 - No Judgment	0 - No Judgment
1.1.a.7. The coach evaluates the progress of a practitioner's e-mentoring efforts.	0 - No Judgment	0 - No Judgment
1.1.a.8. If the coach evaluates e-mentoring efforts, the results are reported to the department administration.	0 - No Judgment	0 - No Judgment
1.1.a.9. If the coach evaluates e-mentoring efforts, the results are reported *only* to the participating practitioner.	0 - No Judgment	0 - No Judgment
1.1.a.10. If the coach evaluates e-mentoring efforts, a standardized rubric will be employed.	0 - No Judgment	0 - No Judgment
1.1.a.11. Multiple technology channels (e.g. SMS, webcam, cell phone) are available to faculty to support online coaching.	0 - No Judgment	0 - No Judgment
1.1.a.12. A member of the department administration has responsibility for the success of the e-mentoring program.	0 - No Judgment	0 - No Judgment
1.1.a.13. A member of the faculty has responsibility for the success of the e-mentoring program.	0 - No Judgment	0 - No Judgment
1.1.a.14. A minimum duration to provide *coaching* is established.	0 - No Judgment	0 - No Judgment
1.1.a.15. The minimum duration to provide coaching is a semester.	0 - No Judgment	0 - No Judgment
Please add any additional attributes you feel would lead to perceived effectiveness:		
Describe additional attributes here...	0 - No Judgment	0 - No Judgment
Describe additional attributes here...	0 - No Judgment	0 - No Judgment

Delphi Study: Round 1
Survey for Delphi Panel

Rankings:

- a ranking of **4** denotes the survey item is **Very Important,**
- a ranking of **3** indicates the survey item is **Important but not essential,**
- a ranking of **2** indicates the survey item is **Helpful but not very important,**
- a ranking of **1** indicates an item is **Unimportant and should not be included,**
- a ranking of **0** indicates the survey participant reports **No Judgment** regarding the item.

Survey area 1.1.b. What attributes of an e-mentoring program for faculty in distance education lead to perceived effectiveness by ***practitioners***?

Survey Item	Importance: Now	Anticipated Importance: In 5-10 years
1.1.b.1. As a practitioner participating in an e-mentoring relationship, I am able to choose my e-mentoring coach.	0 - No Judgment	0 - No Judgment
1.1.b.2. Time is provided in my schedule to participate with my coach in e-mentoring sessions.	0 - No Judgment	0 - No Judgment
1.1.b.3. Communication technology funds are available (e.g. SMS service, webcams, cell phone and long distance allowances) to use to participate in e-mentoring sessions.	0 - No Judgment	0 - No Judgment
1.1.b.4. Compensation is made available for participation in e-mentoring sessions.	0 - No Judgment	0 - No Judgment
1.1.b.5. Technical support is made available to support the participant in an e-mentoring session.	0 - No Judgment	0 - No Judgment
1.1.b.6. Departmental leadership in support of e-mentoring participation is evident.	0 - No Judgment	0 - No Judgment
1.1.b.7. The practitioner evaluates the effectiveness of a coach's e-mentoring efforts.	0 - No Judgment	0 - No Judgment
1.1.b.8. If e-mentoring efforts are evaluated by the practitioner, the results are reported the department administration.	0 - No Judgment	0 - No Judgment
1.1.b.9. If the participating practitioner evaluates e-mentoring efforts, the results are reported only to the practitioner's coach.	0 - No Judgment	0 - No Judgment
1.1.b.10. If the practitioner evaluates e-mentoring efforts, a standardized rubric will be employed.	0 - No Judgment	0 - No Judgment
1.1.b.11. There should be multiple technology channels (e.g. SMS, webcam, cell phone) available to faculty to support practitioner participation during e-mentoring.	0 - No Judgment	0 - No Judgment
1.1.a.12. A member of the department administration has responsibility for the success of the e-mentoring program.	0 - No Judgment	0 - No Judgment
1.1.a.13. A member of the faculty has responsibility for the success of the e-mentoring program.	0 - No Judgment	0 - No Judgment
1.1.a.14. A minimum *duration for the practitioner to participate* in coaching is established.	0 - No Judgment	0 - No Judgment
1.1.a.15. The minimum duration for the practitioner to participate in a coaching period is a semester.	0 - No Judgment	0 - No Judgment
Please add any additional attributes you feel would lead to perceived effectiveness:		
Describe additional attributes here...	0 - No Judgment	0 - No Judgment
Describe additional attributes here...	0 - No Judgment	0 - No Judgment

Delphi Study: Round 1
Survey for Delphi Panel

Rankings:

- a ranking of **4** denotes the survey item is **Very Important,**
- a ranking of **3** indicates the survey item is **Important but not essential,**
- a ranking of **2** indicates the survey item is **Helpful but not very important,**
- a ranking of **1** indicates an item is **Unimportant and should not be included,**
- a ranking of **0** indicates the survey participant reports **No Judgment** regarding the item.

Survey area 2.1. What formal or informal activities or organizational processes related to e-mentoring would provide **preparation for teaching online**?

Survey Item	Importance: Now	Anticipated Importance: In 5-10 years
2.1.1. A process exists to assign a coach to an individual practitioner.	0 - No Judgment	0 - No Judgment
2.1.2. A process exists whereby the practitioner chooses a dedicated coach.	0 - No Judgment	0 - No Judgment
2.1.3. A practitioner can choose a coach for a particular project because that coach has known talent in a desired skill.	0 - No Judgment	0 - No Judgment
2.1.4. A standard, prescribed set of activities is documented for the practitioner to complete, which the coach reviews.	0 - No Judgment	0 - No Judgment
2.1.5. Formal processes exist to educate faculty about copyright law regarding online delivery of education.	0 - No Judgment	0 - No Judgment
2.1.6. Formal processes exist to educate faculty about accessibility issues regarding online delivery of education.	0 - No Judgment	0 - No Judgment
2.1.7. Formal processes exist to educate faculty about institutional intellectual property expectations.	0 - No Judgment	0 - No Judgment
Please add any additional formal or informal processes you feel would provided preparation for teaching online:		
Describe additional processes here...	0 - No Judgment	0 - No Judgment
Describe additional processes here...	0 - No Judgment	0 - No Judgment

Delphi Study: Round 1
Survey for Delphi Panel

Rankings:

- a ranking of **4** denotes the survey item is **Very Important,**
- a ranking of **3** indicates the survey item is **Important but not essential,**
- a ranking of **2** indicates the survey item is **Helpful but not very important,**
- a ranking of **1** indicates an item is **Unimportant and should not be included,**
- a ranking of **0** indicates the survey participant reports **No Judgment** regarding the item.

Survey area 2.2. What formal and informal activities or organizational processes related to e-mentoring would provide: **collegiality?**

Survey Item	Importance: Now	Anticipated Importance: In 5-10 years
2.2.1. All faculty new to online teaching participate with a coach in an e-mentoring relationship for some period of time.	0 - No Judgment	0 - No Judgment
2.2.2. All faculty are encouraged to participate as practitioners in a Community of Practice. That is, their participation is voluntary but it is viewed as beneficial to the Community of Practice.	0 - No Judgment	0 - No Judgment
2.2.3. All faculty with skills desired by the Community of Practice are encouraged to participate as coaches.	0 - No Judgment	0 - No Judgment
2.2.4. A formal opportunity for practitioners to meet and greet *online at the start* of the academic period should be provided.	0 - No Judgment	0 - No Judgment
2.2.5. A formal opportunity for practitioners to meet and greet *in person at the start* of the academic period should be provided.	0 - No Judgment	0 - No Judgment
2.2.6. An opportunity for practitioners to meet and greet *periodically online* during the academic period should be provided.	0 - No Judgment	0 - No Judgment
Please add any additional formal or informal processes you feel would provided collegiality:		
Describe additional processes here...	0 - No Judgment	0 - No Judgment
Describe additional processes here...	0 - No Judgment	0 - No Judgment

Delphi Study: Round 1
Survey for Delphi Panel

Rankings:

- a ranking of **4** denotes the survey item is **Very Important,**
- a ranking of **3** indicates the survey item is **Important but not essential,**
- a ranking of **2** indicates the survey item is **Helpful but not very important,**
- a ranking of **1** indicates an item is **Unimportant and should not be included,**
- a ranking of **0** indicates the survey participant reports **No Judgment** regarding the item.

Survey area: 2.3. What formal and informal activities or organizational processes related to e-mentoring would provide: **professional development?**

Survey Item	Importance: Now	Anticipated Importance: In 5-10 years
2.3.1. Open sharing of exemplars of work is encouraged.	0 - No Judgment	0 - No Judgment
2.3.2. Acting as a coach will positively impact my tenure and promotion chances.	0 - No Judgment	0 - No Judgment
2.3.3. Innovation in teaching online is incentivized monetarily.	0 - No Judgment	0 - No Judgment
2.3.4. Innovation in teaching online is incentivized by way of course releases.	0 - No Judgment	0 - No Judgment
2.3.5. Applying new tools and skills as a practitioner will positively impact my tenure and promotion chances.	0 - No Judgment	0 - No Judgment
2.3.6. Online training materials are provided.	0 - No Judgment	0 - No Judgment
Please add any additional formal or informal processes you feel would provide for professional development:		
Describe additional processes here...	0 - No Judgment	0 - No Judgment
Describe additional processes here...	0 - No Judgment	0 - No Judgment

Delphi Study: Round 1
Survey for Delphi Panel

Rankings: • a ranking of **4** denotes the survey item is **Very Important,** • a ranking of **3** indicates the survey item is **Important but not essential,** • a ranking of **2** indicates the survey item is **Helpful but not very important,** • a ranking of **1** indicates an item is **Unimportant and should not be included,** • a ranking of **0** indicates the survey participant reports **No Judgment** regarding the item.		
Survey area 3.1. What metrics can be used to determine that e-mentoring has led to increased: **spread (growth in size and outreach)?**		
Survey Item	Importance: Now	Anticipated Importance: In 5-10 years
3.1.1. The number of online courses taught is a good metric to track the spread of a distance education program.	0 - No Judgment	0 - No Judgment
3.1.2. The number of faculty delivering distance education classes is a good metric to track the spread of a distance education program.	0 - No Judgment	0 - No Judgment
3.1.3. Job satisfaction reported by faculty delivering distance education classes is a good metric to track spread of a distance education program.	0 - No Judgment	0 - No Judgment
3.1.4. The number of *fully* online programs offered is a good measure of a distance education program.	0 - No Judgment	0 - No Judgment
3.1.5. The number of *semester-credit hours* delivered online is a good measure of a distance education program.	0 - No Judgment	0 - No Judgment
Please add any metrics you feel could determine that e-mentoring has led to increased spread:		
Describe additional metrics here...	0 - No Judgment	0 - No Judgment
Describe additional metrics here...	0 - No Judgment	0 - No Judgment

Delphi Study: Round 1
Survey for Delphi Panel

Rankings:

- a ranking of **4** denotes the survey item is **Very Important,**
- a ranking of **3** indicates the survey item is **Important but not essential,**
- a ranking of **2** indicates the survey item is **Helpful but not very important,**
- a ranking of **1** indicates an item is **Unimportant and should not be included,**
- a ranking of **0** indicates the survey participant reports **No Judgment** regarding the item.

Survey area 3.2. What metrics can be used to determine that e-mentoring has led to increased: **depth (internalization of the goal as demonstrated by participative behavior)?**

Survey Item	Importance: Now	Anticipated Importance: In 5-10 years
3.2.1. Faculty acceptance of delivering education online would be a good metric to track the depth of a distance education program.	0 - No Judgment	0 - No Judgment
3.2.2. The number of faculty participating as a coach in an e-mentoring program would be a good metric to track the depth of a distance education program.	0 - No Judgment	0 - No Judgment
3.2.3. The number of faculty participating as a practitioner in an e-mentoring program would be a good metric to track the depth of a distance education program.	0 - No Judgment	0 - No Judgment
3.2.4. The number of *faculty providing exemplars* as part of a Community of Practice in an e-mentoring program would be a good metric to track the depth of a distance education program.	0 - No Judgment	0 - No Judgment
3.2.5. The number of *exemplars contributed* by faculty to an online repository as part of a Community of Practice in an e-mentoring program would be a good metric to track the depth of a distance education program.	0 - No Judgment	0 - No Judgment
3.2.6. The *percentage* of the faculty in a department or program teaching distance courses is a good metric to track the depth of a distance education program.	0 - No Judgment	0 - No Judgment
Please add any metrics you feel could determine that e-mentoring has led to increased depth:		
Describe additional metrics here...	0 - No Judgment	0 - No Judgment
Describe additional metrics here...	0 - No Judgment	0 - No Judgment

Delphi Study: Round 1
Survey for Delphi Panel

Rankings:

- a ranking of **4** denotes the survey item is **Very Important,**
- a ranking of **3** indicates the survey item is **Important but not essential,**
- a ranking of **2** indicates the survey item is **Helpful but not very important,**
- a ranking of **1** indicates an item is **Unimportant and should not be included,**
- a ranking of **0** indicates the survey participant reports **No Judgment** regarding the item.

Survey area: 3.3. What metrics can be used to determine that e-mentoring has led to increased: **sustainability (use of e-mentoring practice had taken hold in the faculty community of practice to help scale distance education program)?**

Survey Item	Importance: Now	Anticipated Importance: In 5-10 years
3.3.1. The number of faculty *participating* as a *coach* in an e-mentoring program would be a good metric to track the sustainability of a distance education program.	0 - No Judgment	0 - No Judgment
3.3.2. The number of faculty *volunteering* as a *coach* in the e-mentoring program would be a good metric to track the sustainability of a distance education program.	0 - No Judgment	0 - No Judgment
3.3.3. The number of faculty inviting other faculty to participate in an e-mentoring program would be good metric to track the sustainability of a distance education program.	0 - No Judgment	0 - No Judgment
3.3.4. The number of faculty participating in the e-mentoring program as a *practitioner* would be a good metric to track the sustainability of a distance education program.	0 - No Judgment	0 - No Judgment
3.3.5. The number of formerly "coached" practitioners acting as coaches for others would be a good metric to track the sustainability of a distance education program.	0 - No Judgment	0 - No Judgment
3.3.6. The number of faculty repeating course delivery in a second semester would be a good metric to track the sustainability of a distance education program.	0 - No Judgment	0 - No Judgment
3.3.7. The number of faculty voluntarily attending workshops or other professional development opportunities would be a good metric to track the sustainability of a distance education program.	0 - No Judgment	0 - No Judgment
3.3.8. The number of faculty advocating for the e-mentoring program would be a good metric to track the sustainability of a distance education program.	0 - No Judgment	0 - No Judgment
Please add any metrics you feel could determine that e-mentoring has led to sustainability:		
Describe additional metrics here...	0 - No Judgment	0 - No Judgment
Describe additional metrics here...	0 - No Judgment	0 - No Judgment

Delphi Study: Round 1
Survey for Delphi Panel

Rankings:

- a ranking of 4 denotes the survey item is **Very Important,**
- a ranking of 3 indicates the survey item is **Important but not essential,**
- a ranking of 2 indicates the survey item is **Helpful but not very important,**
- a ranking of 1 indicates an item is **Unimportant and should not be included,**
- a ranking of 0 indicates the survey participant reports **No Judgment** regarding the item.

Survey area 3.4. What metrics can be used to determine that e-mentoring has led to increased: **sense of ownership (sense of ownership in scaling the distance education program as is felt by faculty community)?**

Survey Item	Importance: Now	Anticipated Importance: In 5-10 years
3.4.1. The number of *faculty* initiating new practices in an e-mentoring program would be a good metric to track the sense of ownership of a distance education program.	0 - No Judgment	0 - No Judgment
3.4.2. The number of *new practices* suggested by faculty in the e-mentoring program would be a good metric to track the sense of ownership of a distance education program.	0 - No Judgment	0 - No Judgment
3.4.3. The number of *faculty* teaching additional distance education courses after participating in an e-mentoring program would be a good metric to track the sense of ownership of a distance education program.	0 - No Judgment	0 - No Judgment
3.4.4. The number of *contributions* by faculty to a Community of Practice repository would be a good metric to track the sense of ownership of a distance education program.	0 - No Judgment	0 - No Judgment
3.4.5. The number of *coaches* readily offering learning objectives and other contributions to the Community of Practice repository would be a good metric to track the sense of ownership of a distance education program.	0 - No Judgment	0 - No Judgment
Please add any metrics you feel could determine that e-mentoring has led to increased sense of ownership:		
Describe additional metrics here...	0 - No Judgment	0 - No Judgment
Describe additional metrics here...	0 - No Judgment	0 - No Judgment

Delphi Study: Round 1
Survey for Delphi Panel

Please add any additional topics you feel should be included in the survey for this study or comments you would like to share with me about the survey. Please indicate with which Research Question your additional items should be grouped.

Please provide any additional information in this text box...

Thank you for your contribution to this study,

Judith Lewis

APPENDIX H

ROUND TWO INSTRUCTIONS

Characteristics of Effective E-mentoring for Faculty to Support Scaling Distance Education: A Delphi Study

INSTRUCTIONS for Round Two:

Purpose and Method:

You are being asked to participate in a Delphi Study. The Delphi Technique is a qualitative methodology to build a consensus of opinion from a panel of experts. Consensus is based on a series of rounds in which a panel of experts responds to questionnaires. Their responses are then analyzed and grouped by the researcher. The summary of the results of each round is returned to the panel for their feedback, at which time they are at liberty to change their original response. This is repeated for three, sometimes four, rounds until a consensus on key topics is achieved.

The goal of the study will be to determine a consensus of opinion regarding procedures and practices for a peer faculty e-mentoring program in a learning community that would affect scaling a distance education program by providing support for faculty in the operationalized areas of preparation, collegiality, and professional development. For the purposes of this research, the definition of *distance education* will draw from work published by Michael G. Moore, who pointed out that this term describes a wide array of programs with varying degrees of "distance" involved, from very little *distance* to fully online classes. The important aspect of distance education for my research is that it a different teaching paradigm than classroom teaching and thus offers opportunities to learn and share new techniques for teaching.

Terms and Definitions:

Research published by C. E. Coburn in 2003 synthesized 'scale' literature to form a framework of scalability that went beyond numbers to include the qualitative aspects of success, as reflected in four dimensions: spread, depth, sustainability, and shift. The more traditional connotation of scale, that of being related to larger numbers (of students, modules, classes), Coburn denoted by the term *Spread*. By *depth,* Coburn described internalizing the goal as manifested in participative social interaction. The notion that the underlying momentum of the early effort had taken hold for the long term was referred to as *Sustainability*. Finally, the term *Shift* was used to describe the behavioral change from being an externally motivated process to an internally derived ownership that generates its own momentum.

The term 'e-mentoring' refers to a nontraditional form of mentoring, specifically a mentoring relationship that is supported by the use of computer mediated communication (CMC). Examples of CMC include email, listserv lists, chat, webcam, and conferencing software, among others. For the purposes of this study, 'e-mentoring' is used to refer to relationships that are primarily, but not exclusively, supported by CMC. While the literature points out that current traditional mentoring includes some

form of CMC support, *e-mentoring* refers to primary support of the mentoring relationship through electronic means.

For the purposes of this research, I will use two terms to refer to this new type of relationship in a peer faculty environment. Historically, the terms of mentor/mentee or mentor/protégée have certain connotations that are not appropriate for a peer-mentoring program. Therefore, these surveys will refer to the coach/practitioner relationship as one in which one peer in the practice of distance education coaches another in a particular skill to enhance the ease of practice for a fellow practitioner.

Ranking and Reporting:

You are again being presented with a digital survey in Microsoft Word format. However, in this round, the document will list the average ranking based on all of the Delphi Panel's input from Round One and your ranking from Round One for that item. The rankings for these items appear both in the context of importance for current distance education programs and then again for how you perceive these same key areas will be of importance in 5 to 10 years. There are a few **NEW** and **REFINED** survey items, suggested by participants in Round One.

The survey items that you have already ranked from Round One have been marked "No Change" in the dropdown. **Please note that you are allowed to change your vote on these items.** To do so, replace the "No change" status in the dropdown with one of the following rankings. Please select current and future rankings for the new items.

Please rank each item on a scale of 1 to 4:

"**4**" represents that the concept or statement is "**Very Important**";
"**3**" represents that the concept or statement is "**Important**";
"**2**" represents that the concept or statement is "**Helpful**";
"**1**" represents that the concept or statement is "**Unimportant".**
"**0**" is reserved for items the panelist reports as "**No Judgment"**.

Please submit the completed survey within two weeks from the time you are emailed the form. You can complete the survey digitally by saving your dropdown selections and comments on your local computer using the Microsoft Word "Save As" command. You can then email me that resulting document (to ____@_____); or, you can print off the document, complete it by hand, and return the scanned document to me by email. Alternatively, you can send the hardcopy results by postal mail (to Judith Lewis at , ,). Please feel free to contact me if would like to obtain any additional information or clarification for your response.

Thank you again for your close reading of the Round One items along with the comments you provided. These additional questions will further enrich the outcome of the study.

Regards,

Judith H. Lewis, MS, PMP
PhD Candidate in Higher Education Administration
Texas A&M University, College Station, TX

APPENDIX I

ROUND TWO SURVEY

Rankings:

- a ranking of **4** denotes the survey item is **Very Important**
- a ranking of **3** indicates the survey item is **Important but not essential,**
- a ranking of **2** indicates the survey item is **Helpful but not very important,**
- a ranking of **1** indicates an item is **Unimportant and should not be included,**
- a ranking of **0** indicates the survey participant reports **No Judgment** regarding the item.

Survey area 1.1.a.: What attributes of an e-mentoring program for faculty in distance education lead to perceived effectiveness by ***coaches***?

	Now			Anticipated in 5-10 years		
Survey Item:	Average Importance Ranking	Your Rank	New Rank:	Average Importance Ranking	Your Rank	New Rank:
1.1.a.1. As a coach, I am able to choose the practitioner I will e-mentor.	1.93		No change	1.85		No change
1.1.a.2. Time is provided in my schedule to coach a colleague using predominantly online methods.	3.25		No change	3.19		No change
1.1.a.3. Communication technology funds are available (e.g. SMS service, webcams, cell phone and long distance allowances) to support the coaching.	3.20		No change	3.20		No change
1.1.a.4. Compensation is made available for coaching.	2.69		No change	2.80		No change
1.1.a.5. Technical support is made available for coaching.	3.27		No change	3.43		No change
1.1.a.6. Departmental leadership in support of coaching is evident.	3.19		No change	3.31		No change
1.1.a.7. The coach evaluates the progress of a practitioner's e-mentoring efforts.	2.69		No change	2.53		No change
1.1.a.8. If the coach evaluates e-mentoring efforts, the results are reported to the department administration.	1.93		No change	1.93		No change
1.1.a.9. If the coach evaluates e-mentoring efforts, the results are reported *only* to the participating practitioner.	2.46		No change	2.38		No change
1.1.a.10. If the coach evaluates e-mentoring efforts, a standardized rubric will be employed.	2.87		No change	2.79		No change
1.1.a.11. Multiple technology channels (e.g. SMS, webcam, cell phone) are available to faculty to support online coaching.	2.93		No change	2.93		No change

1.1.a.12. A member of the department administration has responsibility for the success of the e-mentoring program.	2.53		No change	2.56		No change
1.1.a.13. A member of the faculty has responsibility for the success of the e-mentoring program.	2.40		No change	2.44		No change
1.1.a.14. A minimum duration to provide *coaching* is established.	2.40		No change	2.47		No change
1.1.a.15. The minimum duration to provide coaching is a semester.	2.15		No change	2.23		No change
NEW: 1.1.a.16. As a coach, I am working with someone who wants to be coached.	N/A	N/A	0 - No Judgment	N/A	N/A	0 - No Judgment
NEW: 1.1.a.17. As a coach, I am able to demonstrate technology at least once in person.	N/A	N/A	0 - No Judgment	N/A	N/A	0 - No Judgment

Rankings:

- a ranking of **4** denotes the survey item is **Very Important,**
- a ranking of **3** indicates the survey item is **Important but not essential,**
- a ranking of **2** indicates the survey item is **Helpful but not very important,**
- a ranking of **1** indicates an item is **Unimportant and should not be included,**
- a ranking of **0** indicates the survey participant reports **No Judgment** regarding the item.

Survey area 1.1.b. What attributes of an e-mentoring program for faculty in distance education lead to perceived effectiveness by ***practitioners*****?**

	Now			Anticipated in 5-10 years		
Survey Item	Average Importance Ranking	Your Rank	New Rank:	Average Importance Ranking	Your Rank	New Rank:
1.1.b.1. As a practitioner participating in an e-mentoring relationship, I am able to choose my e-mentoring coach.	2.50		No change	2.44		No change
1.1.b.2. Time is provided in my schedule to participate with my coach in e-mentoring sessions.	3.06		No change	3.07		No change
1.1.b.3. Communication technology funds are available (e.g. SMS service, webcams, cell phone and long distance allowances) to use to participate in e-mentoring sessions.	3.00		No change	3.00		No change
1.1.b.4. Compensation is made available for participation in e-mentoring sessions.	2.38		No change	2.19		No change
1.1.b.5. Technical support is made available to support the participant in an e-mentoring session.	3.56		No change	3.44		No change
1.1.b.6. Departmental leadership in support of e-mentoring participation is evident.	3.31		No change	3.25		No change
1.1.b.7. The practitioner evaluates the effectiveness of a coach's e-mentoring efforts.	2.67		No change	2.67		No change
1.1.b.8. If e-mentoring efforts are evaluated by the practitioner, the results are reported the department administration.	2.0		No change	2.08		No change
1.1.b.9. If the participating practitioner evaluates e-mentoring efforts, the results are reported only to the practitioner's coach.	2.43		No change	2.40		No change
1.1.b.10. If the practitioner evaluates e-mentoring efforts, a standardized rubric will be employed.	2.73		No change	2.88		No change
1.1.b.11. There should be multiple technology channels (e.g. SMS, webcam, cell phone) available to faculty to support practitioner participation during e-mentoring.	2.81		No change	3.00		No change

1.1.b.12. A member of the department administration has responsibility for the success of the e-mentoring program.	2.60		No change	2.63		No change
1.1.b.13. A member of the faculty has responsibility for the success of the e-mentoring program.	2.21		No change	2.27		No change
1.1.b.14. A minimum *duration for the practitioner to participate* in coaching is established.	2.53		No change	2.56		No change
1.1.b.15. The minimum duration for the practitioner to participate in a coaching period is a semester.	2.18		No change	2.18		No change
NEW: 1.1.b.16. Being coached will positively impact decisions regarding my tenure and promotion.	N/A	N/A	0 - No Judgment	N/A	N/A	0 - No Judgment
NEW: 1.1.b.17. As a practitioner, I am able to see a demonstration of the technology in person at least once.	N/A	N/A	0 - No Judgment	N/A	N/A	0 - No Judgment
NEW: 1.1.b.18. As a practitioner, I am able to view examples from a cohort of practitioners.	N/A	N/A	0 - No Judgment	N/A	N/A	0 - No Judgment

Rankings:

- a ranking of **4** denotes the survey item is **Very Important,**
- a ranking of **3** indicates the survey item is **Important but not essential,**
- a ranking of **2** indicates the survey item is **Helpful but not very important,**
- a ranking of **1** indicates an item is **Unimportant and should not be included,**
- a ranking of **0** indicates the survey participant reports **No Judgment** regarding the item.

NEW: Survey area 1.1.c. What attributes of a department would lead to an effective e-mentoring program for faculty in distance education?

	Now			Anticipated in 5-10 years		
Survey Item	Average Importance Ranking	Your Rank	New Rank:	Average Importance Ranking	Your Rank	New Rank:
NEW: 1.1.c.1. The department administration is trained in how to deliver an effective e-mentoring program.	N/A	N/A	0 - No Judgment	N/A	N/A	0 - No Judgment
NEW: 1.1.c.2. The department provides training and resources (books, articles, online forums) on how to be an effective coach.	N/A	N/A	0 - No Judgment	N/A	N/A	0 - No Judgment
NEW: 1.1.c.3. The department values online teaching in tenure and promotion decisions.	N/A	N/A	0 - No Judgment	N/A	N/A	0 - No Judgment
NEW: 1.1.c.4. The culture of faculty and administration within the department values distance education.	N/A	N/A	0 - No Judgment	N/A	N/A	0 - No Judgment
NEW: 1.1.c.5. The department offers training on topics such as content delivery, teaching modalities, and online instructional strategies.	N/A	N/A	0 - No Judgment	N/A	N/A	0 - No Judgment
NEW: 1.1.c.6. The department values mentorship (in person and by technology).	N/A	N/A	0 - No Judgment	N/A	N/A	0 - No Judgment
NEW: 1.1.c.7. Coaches should be required to train on the interactive technologies they must utilize in coaching and teaching online before they mentor online.	N/A	N/A	0 - No Judgment	N/A	N/A	0 - No Judgment
NEW: 1.1.c.8. The department provides a clear rationale for the coach/practitioner relationship (why this mentor was chosen/what the mentored person can expect from the being coached).	N/A	N/A	0 - No Judgment	N/A	N/A	0 - No Judgment

Rankings:

- a ranking of **4** denotes the survey item is **Very Important,**
- a ranking of **3** indicates the survey item is **Important but not essential,**
- a ranking of **2** indicates the survey item is **Helpful but not very important,**
- a ranking of **1** indicates an item is **Unimportant and should not be included,**
- a ranking of **0** indicates the survey participant reports **No Judgment** regarding the item.

Survey area 2.1. What formal or informal activities or organizational processes related to e-mentoring would provide **preparation for teaching online**?

	Now			Anticipated in 5-10 years		
Survey Item	Average Importance Ranking	Your Rank	New Rank:	Average Importance Ranking	Your Rank	New Rank:
2.1.1. A process exists to assign a coach to an individual practitioner.	2.60		No change	2.71		No change
2.1.2. A process exists whereby the practitioner chooses a dedicated coach.	2.88		No change	2.86		No change
2.1.3. A practitioner can choose a coach for a particular project because that coach has known talent in a desired skill.	3.07		No change	3.07		No change
2.1.4. A standard, prescribed set of activities is documented for the practitioner to complete, which the coach reviews.	2.57		No change	2.57		No change
2.1.5. Formal processes exist to educate faculty about copyright law regarding online delivery of education.	3.40		No change	3.53		No change
2.1.6. Formal processes exist to educate faculty about accessibility issues regarding online delivery of education.	3.47		No change	3.21		No change
2.1.7. Formal processes exist to educate faculty about institutional intellectual property expectations.	3.27		No change	3.33		No change
NEW: 2.1.8. The department provides other resources to learn about the online delivery of education (e.g. books, articles, best practices, online forums).	N/A	N/A	0 - No Judgment	N/A	N/A	0 - No Judgment

Rankings:

- a ranking of **4** denotes the survey item is **Very Important,**
- a ranking of **3** indicates the survey item is **Important but not essential,**
- a ranking of **2** indicates the survey item is **Helpful but not very important,**
- a ranking of **1** indicates an item is **Unimportant and should not be included,**
- a ranking of **0** indicates the survey participant reports **No Judgment** regarding the item.

Survey area 2.2. What formal and informal activities or organizational processes related to e-mentoring would provide: **collegiality?**

	Now			Anticipated in 5-10 years		
Survey Item	Average Importance Ranking	Your Rank	New Rank:	Average Importance Ranking	Your Rank	New Rank:
2.2.1. All faculty new to online teaching participate with a coach in an e-mentoring relationship for some period of time.	2.75		No change	2.81		No change
2.2.2. All faculty are encouraged to participate as practitioners in a Community of Practice. That is, their participation is voluntary but it is viewed as beneficial to the Community of Practice.	2.64		No change	2.71		No change
NEW: 2.2.2.a. All faculty are required to participate as practitioners in a Community of Practice.	N/A	N/A	0 - No Judgment	N/A	N/A	0 - No Judgment
2.2.3. All faculty with skills desired by the Community of Practice are encouraged to participate as coaches.	2.63		No change	2.63		No change
2.2.4. A formal opportunity for practitioners to meet and greet *online at the start* of the academic period should be provided.	2.63		No change	2.75		No change
2.2.5. A formal opportunity for practitioners to meet and greet *in person at the start* of the academic period should be provided.	2.25		No change	2.13		No change
2.2.6. An opportunity for practitioners to meet and greet *periodically online* during the academic period should be provided.	2.79		No change	2.80		No change

Rankings:

- a ranking of **4** denotes the survey item is **Very Important,**
- a ranking of **3** indicates the survey item is **Important but not essential,**
- a ranking of **2** indicates the survey item is **Helpful but not very important,**
- a ranking of **1** indicates an item is **Unimportant and should not be included,**
- a ranking of **0** indicates the survey participant reports **No Judgment** regarding the item.

Survey area: 2.3. What formal and informal activities or organizational processes related to e-mentoring would provide: **professional development?**

	Now			Anticipated in 5-10 years		
Survey Item	Average Importance Ranking	Your Rank	New Rank:	Average Importance Ranking	Your Rank	New Rank:
2.3.1. Open sharing of exemplars of work is encouraged.	3.31		No change *	3.33		No change
2.3.2. Acting as a coach will positively impact my tenure and promotion chances.	2.86		No change	3.00		No change
2.3.3. Innovation in teaching online is incentivized monetarily.	2.44		No change	2.33		No change
2.3.4. Innovation in teaching online is incentivized by way of course releases.	2.47		No change	2.57		No change
2.3.5. Applying new tools and skills as a practitioner will positively impact my tenure and promotion chances.	2.60		No change	2.67		No change
2.3.6. Online training materials are provided.	3.25		No change	3.13		No change
NEW: 2.3.7. Incentives are offered to faculty already tenured and a full professor to participate in an e-mentoring relationship.	N/A	N/A	0 - No Judgment	N/A	N/A	0 - No Judgment

Rankings:

- a ranking of **4** denotes the survey item is **Very Important,**
- a ranking of **3** indicates the survey item is **Important but not essential,**
- a ranking of **2** indicates the survey item is **Helpful but not very important,**
- a ranking of **1** indicates an item is **Unimportant and should not be included,**
- a ranking of **0** indicates the survey participant reports **No Judgment** regarding the item.

Survey area 3.1. What metrics can be used to determine that e-mentoring has led to increased: **spread (growth in size and outreach)?**

	Now			Anticipated in 5-10 years		
Survey Item	Average Importance Ranking	Your Rank	New Rank:	Average Importance Ranking	Your Rank	New Rank:
3.1.1. The number of online courses taught is a good metric to track the spread of a distance education program.	2.54		No change	2.38		No change
3.1.2. The number of faculty delivering distance education classes is a good metric to track the spread of a distance education program.	2.40		No change	2.57		No change
3.1.3. Job satisfaction reported by faculty delivering distance education classes is a good metric to track spread of a distance education program.	2.20		No change	2.21		No change
3.1.4. The number of *fully* online programs offered is a good measure of a distance education program.	2.25		No change	2.33		No change
REFINED: 3.1.5. The number of *semester-credit hours* delivered online, **a metric that takes into account the number of students enrolled in the classes,** is a good measure of a distance education program. **(Note: Bold description added.)**	2.5		No change	2.36		No change
NEW: 3.1.6. The amount of money generated by online courses is a good measure to track the spread of a distance education program.	N/A	N/A	0 - No Judgment	N/A	N/A	0 - No Judgment
NEW: 3.1.7. Improved, average student evaluations of online courses is a good measure of the spread of a distance education program.	N/A	N/A	0 - No Judgment	N/A	N/A	0 - No Judgment

Rankings:

- a ranking of **4** denotes the survey item is **Very Important,**
- a ranking of **3** indicates the survey item is **Important but not essential,**
- a ranking of **2** indicates the survey item is **Helpful but not very important,**
- a ranking of **1** indicates an item is **Unimportant and should not be included,**
- a ranking of **0** indicates the survey participant reports **No Judgment** regarding the item.

Survey area 3.2. What metrics can be used to determine that e-mentoring has led to increased: **depth (internalization of the goal as demonstrated by participative behavior)?**

	Now			Anticipated in 5-10 years		
Survey Item	Average Importance Ranking	Your Rank	New Rank:	Average Importance Ranking	Your Rank	New Rank:
3.2.1. Faculty acceptance of delivering education online would be a good metric to track the depth of a distance education program.	3.13		No change •	3.00		No change
3.2.2. The number of faculty participating as a coach in an e-mentoring program would be a good metric to track the depth of a distance education program.	2.50		No change	2.50		No change
3.2.3. The number of faculty participating as a practitioner in an e-mentoring program would be a good metric to track the depth of a distance education program.	2.33		No change	2.40		No change
3.2.4. The number of *faculty providing exemplars* as part of a Community of Practice in an e-mentoring program would be a good metric to track the depth of a distance education program.	2.60		No change	2.60		No change
3.2.5. The number of *exemplars contributed* by faculty to an online repository as part of a Community of Practice in an e-mentoring program would be a good metric to track the depth of a distance education program.	2.50		No change	2.56		No change
3.2.6. The *percentage* of the faculty in a department or program teaching distance courses is a good metric to track the depth of a distance education program.	2.14		No change	2.21		No change
NEW: 3.2.7. The number of articles published within the department about e-mentoring in higher education is a good metric to track the depth of a distance education program.	N/A	N/A	0 - No Judgment	N/A	N/A	0 - No Judgment
NEW: 3.2.8. Feedback indicating increased quality of course delivery as articulated by those in e-mentoring relationships is a good metric to track the depth of a distance education program.	N/A	N/A	0 - No Judgment	N/A	N/A	0 - No Judgment

Rankings:

- a ranking of **4** denotes the survey item is **Very Important,**
- a ranking of **3** indicates the survey item is **Important but not essential,**
- a ranking of **2** indicates the survey item is **Helpful but not very important,**
- a ranking of **1** indicates an item is **Unimportant and should not be included,**
- a ranking of **0** indicates the survey participant reports **No Judgment** regarding the item.

Survey area: 3.3. What metrics can be used to determine that e-mentoring has led to increased: **sustainability (use of e-mentoring practice had taken hold in the faculty community of practice to help scale distance education program)?**

	Now			Anticipated in 5-10 years		
Survey Item	Average Importance Ranking	Your Rank	New Rank:	Average Importance Ranking	Your Rank	New Rank:
3.3.1. The number of faculty *participating* as a *coach* in an e-mentoring program would be a good metric to track the sustainability of a distance education program.	2.47		No change	2.43		No change
3.3.2. The number of faculty *volunteering* as a *coach* in the e-mentoring program would be a good metric to track the sustainability of a distance education program.	2.60		No change	2.60		No change
3.3.3. The number of faculty inviting other faculty to participate in an e-mentoring program would be good metric to track the sustainability of a distance education program.	2.27		No change	2.07		No change
3.3.4. The number of faculty participating in the e-mentoring program as a *practitioner* would be a good metric to track the sustainability of a distance education program.	2.60		No change	2.53		No change
3.3.5. The number of formerly "coached" practitioners acting as coaches for others would be a good metric to track the sustainability of a distance education program.	3.13		No change	2.88		No change
3.3.6. The number of faculty repeating course delivery in a second semester would be a good metric to track the sustainability of a distance education program.	2.56		No change	2.63		No change
REFINED: 3.3.7. The number of faculty voluntarily attending ***e-learning/online*** workshops or other professional development opportunities would be a good metric to track the sustainability of a distance education program. **(Note: Bold description**	2.80		No change	2.60		No change

added.)						
3.3.8. The number of faculty advocating for the e-mentoring program would be a good metric to track the sustainability of a distance education program.	3.00		No change	2.87		No change

Rankings:

- a ranking of **4** denotes the survey item is **Very Important,**
- a ranking of **3** indicates the survey item is **Important but not essential,**
- a ranking of **2** indicates the survey item is **Helpful but not very important,**
- a ranking of **1** indicates an item is **Unimportant and should not be included,**
- a ranking of **0** indicates the survey participant reports **No Judgment** regarding the item.

Survey area 3.4. What metrics can be used to determine that e-mentoring has led to increased**: sense of ownership (sense of ownership in scaling the distance education program as is felt by faculty community)?**

	Now			Anticipated in 5-10 years		
Survey Item	Average Importance Ranking	Your Rank	New Rank:	Average Importance Ranking	Your Rank	New Rank:
3.4.1. The number of *faculty* initiating new practices in an e-mentoring program would be a good metric to track the sense of ownership of a distance education program.	3.29		No change	3.43		No change
3.4.2. The number of *new practices* suggested by faculty in the e-mentoring program would be a good metric to track the sense of ownership of a distance education program.	3.00		No change	3.07		No change
3.4.3. The number of *faculty* teaching additional distance education courses after participating in an e-mentoring program would be a good metric to track the sense of ownership of a distance education program.	2.69		No change	2.56		No change
3.4.4. The number of *contributions* by faculty to a Community of Practice repository would be a good metric to track the sense of ownership of a distance education program.	2.86		No change	2.85		No change
3.4.5. The number of *coaches* readily offering learning objectives and other contributions to the Community of Practice repository would be a good metric to track the sense of ownership of a distance education program.	3.00		No change	3.17		No change

Please provide any comments you would like to share with me about the survey. If the comment pertains to a particular survey item, please indicate with which Research Question your comment pertains.

Please provide comments in this text box...

Thank you for your contribution to this study,

Judith Lewis

APPENDIX J

ROUND THREE INSTRUCTIONS

Characteristics of Effective E-mentoring for Faculty to Support Scaling Distance Education: A Delphi Study

INSTRUCTIONS for Round Three:

Purpose and Method:

You are being asked to participate in a Delphi Study. The Delphi Technique is a qualitative methodology to build a consensus of opinion from a panel of experts. Consensus is based on a series of rounds in which a panel of experts responds to questionnaires. Their responses are then analyzed and grouped by the researcher. The summary of the results of each round is returned to the panel for their feedback, at which time they are at liberty to change their original response. This is repeated for three, sometimes four, rounds until a consensus on key topics is achieved.

The goal of the study will be to determine a consensus of opinion regarding procedures and practices for a peer faculty e-mentoring program in a learning community that would affect scaling a distance education program by providing support for faculty in the operationalized areas of preparation, collegiality, and professional development. For the purposes of this research, the definition of *distance education* will draw from work published by Michael G. Moore, who pointed out that this term describes a wide array of programs with varying degrees of "distance" involved, from very little *distance* to fully online classes. The important aspect of distance education for my research is that it a different teaching paradigm than classroom teaching and thus offers opportunities to learn and share new techniques for teaching.

Terms and Definitions:

Research published by C. E. Coburn in 2003 synthesized 'scale' literature to form a framework of scalability that went beyond numbers to include the qualitative aspects of success, as reflected in four dimensions: spread, depth, sustainability, and shift. The more traditional connotation of scale, that of being related to larger numbers (of students, modules, classes), Coburn denoted by the term *Spread*. By *Depth,* Coburn described internalizing the goal as manifested in participative social interaction. The notion that the underlying momentum of the early effort had taken hold for the long term was referred to as *Sustainability*. Finally, the term *Shift* was used to describe the behavioral change from being an externally motivated process to an internally derived ownership that generates its own momentum.

The term 'e-mentoring' refers to a nontraditional form of mentoring, specifically a mentoring relationship that is supported by the use of computer mediated communication (CMC). Examples of CMC include email, listserv lists, chat, webcam, and conferencing software, among others. For the purposes of this study, 'e-mentoring' is used to refer to relationships that are primarily, but not exclusively, supported by CMC. While the literature points out that current traditional mentoring includes some form of CMC support, *e-mentoring* refers to primary support of the mentoring relationship through electronic means.

For the purposes of this research, I will use two terms to refer to this new type of relationship in a peer faculty environment. Historically, the terms of mentor/mentee or mentor/protégée have certain connotations that are not appropriate for a peer-mentoring program. Therefore, these surveys will refer to the coach/practitioner relationship as one in which one peer in the practice of distance education coaches another in a particular skill to enhance the ease of practice for a fellow practitioner.

Ranking and Reporting:

You are again being presented with a digital survey in Microsoft Word format. However, in this round, the document has been abbreviated to include only the items remaining to be evaluated. For those items, the survey will list the average ranking based on all of the Delphi Panel's input from Round Two and your ranking from Round Two for that item. The rankings for these items appear both in the context of importance for current distance education programs and then again for how you perceive these same key areas will be of importance in 5 to 10 years.

The survey items that you have already ranked from Round Two have been marked "No Change" in the dropdown. **Please note that you are allowed to change your vote on these items.** To do so, replace the "No change" status in the dropdown with one of the following rankings. Please select current and future rankings for the new items.

Please rank each item on a scale of 1 to 4:

"**4**" represents that the concept or statement is "**Very Important**";
"**3**" represents that the concept or statement is "**Important**";
"**2**" represents that the concept or statement is "**Helpful**";
"**1**" represents that the concept or statement is "**Unimportant**".
"**0**" is reserved for items the panelist reports as "**No Judgment**".

Please submit the completed survey within two weeks from the time you are emailed the form. You can complete the survey digitally by saving your dropdown selections and comments on your local computer using the Microsoft Word "Save As" command. You can then email me that resulting document (to ____@_____); or, you can print off the document, complete it by hand, and return the scanned document to me by email. Alternatively, you can send the hardcopy results by postal mail (to Judith Lewis at , ,). Please feel free to contact me if would like to obtain any additional information or clarification for your response.

Thank you again for your close reading of the Round Two items along with the comments you have provided.

Regards,
Judith H. Lewis, MS, PMP
PhD Candidate in Higher Education Administration
Texas A&M University, College Station, TX

APPENDIX K

ROUND THREE SURVEY

Rankings:

- a ranking of **4** denotes the survey item is **Very Important**
- a ranking of **3** indicates the survey item is **Important but not essential,**
- a ranking of **2** indicates the survey item is **Helpful but not very important,**
- a ranking of **1** indicates an item is **Unimportant and should not be included,**
- a ranking of **0** indicates the survey participant reports **No Judgment** regarding the item.

Survey area 1.1.a.: What attributes of an e-mentoring program for faculty in distance education lead to perceived effectiveness by ***coaches***?

	Now			Anticipated in 5-10 years		
Survey Item:	Average Importance Ranking	Your Rank	New Rank:	Average Importance Ranking	Your Rank	New Rank:
1.1.a.16. As a coach, I am working with someone who wants to be coached.	3.00		No change •	3.00		No change
1.1.a.17. As a coach, I am able to demonstrate technology at least once in person.	2.23		No change	2.29		No change

Survey area 1.1.b. What attributes of an e-mentoring program for faculty in distance education lead to perceived effectiveness by ***practitioners***?

	Now			Anticipated in 5-10 years		
Survey Item	Average Importance Ranking	Your Rank	New Rank:	Average Importance Ranking	Your Rank	New Rank:
1.1.b.16. Being coached will positively impact decisions regarding my tenure and promotion.	2.25		No change	2.50		No change
1.1.b.17. As a practitioner, I am able to see a demonstration of the technology in person at least once.	2.42		No change	2.42		No change
1.1.b.18. As a practitioner, I am able to view examples from a cohort of practitioners.	2.92		No change	2.77		No change

Rankings:

- a ranking of **4** denotes the survey item is **Very Important,**
- a ranking of **3** indicates the survey item is **Important but not essential,**
- a ranking of **2** indicates the survey item is **Helpful but not very important,**
- a ranking of **1** indicates an item is **Unimportant and should not be included,**
- a ranking of **0** indicates the survey participant reports **No Judgment** regarding the item.

NEW: Survey area 1.1.c. What attributes of a department would lead to an effective e-mentoring program for faculty in distance education?

	Now			Anticipated in 5-10 years		
Survey Item	Average Importance Ranking	Your Rank	New Rank:	Average Importance Ranking	Your Rank	New Rank:
1.1.c.1. The department administration is trained in how to deliver an effective e-mentoring program.	2.77		No change	2.93		No change
1.1.c.2. The department provides training and resources (books, articles, online forums) on how to be an effective coach.	3.15		No change	3.21		No change
1.1.c.3. The department values online teaching in tenure and promotion decisions.	3.54		No change	3.54		No change
1.1.c.4. The culture of faculty and administration within the department values distance education.	3.54		No change	3.50		No change
1.1.c.5. The department offers training on topics such as content delivery, teaching modalities, and online instructional strategies.	3.54		No change	3.62		No change
1.1.c.6. The department values mentorship (in person and by technology).	3.08		No change	3.15		No change
1.1.c.7. Coaches should be required to train on the interactive technologies they must utilize in coaching and teaching online before they mentor online.	2.85		No change	3.00		No change
1.1.c.8. The department provides a clear rationale for the coach/practitioner relationship (why this mentor was chosen/what the mentored person can expect from the being coached).	2.69		No change	2.77		No change

Rankings:

- a ranking of **4** denotes the survey item is **Very Important,**
- a ranking of **3** indicates the survey item is **Important but not essential,**
- a ranking of **2** indicates the survey item is **Helpful but not very important,**
- a ranking of **1** indicates an item is **Unimportant and should not be included,**
- a ranking of **0** indicates the survey participant reports **No Judgment** regarding the item.

Survey area 2.1. What formal or informal activities or organizational processes related to e-mentoring would provide **preparation for teaching online**?

	Now			Anticipated in 5-10 years		
Survey Item	Average Importance Ranking	Your Rank	New Rank:	Average Importance Ranking	Your Rank	New Rank:
2.1.8. The department provides other resources to learn about the online delivery of education (e.g. books, articles, best practices, online forums).	2.38		No change	2.54		No change

Survey area 2.2. What formal and informal activities or organizational processes related to e-mentoring would provide: **collegiality?**

	Now			Anticipated in 5-10 years		
Survey Item	Average Importance Ranking	Your Rank	New Rank:	Average Importance Ranking	Your Rank	New Rank:
2.2.2.a. All faculty are required to participate as practitioners in a Community of Practice.	1.77		No change	2.15		No change

Survey area: 2.3. What formal and informal activities or organizational processes related to e-mentoring would provide: **professional development?**

	Now			Anticipated in 5-10 years		
Survey Item	Average Importance Ranking	Your Rank	New Rank:	Average Importance Ranking	Your Rank	New Rank:
2.3.7. Incentives are offered to faculty already tenured and a full professor to participate in an e-mentoring relationship.	2.21		No change	2.43		No change

Rankings:

- a ranking of **4** denotes the survey item is **Very Important,**
- a ranking of **3** indicates the survey item is **Important but not essential,**
- a ranking of **2** indicates the survey item is **Helpful but not very important,**
- a ranking of **1** indicates an item is **Unimportant and should not be included,**
- a ranking of **0** indicates the survey participant reports **No Judgment** regarding the item.

Survey area 3.1. What metrics can be used to determine that e-mentoring has led to increased: **spread (growth in size and outreach)?**

	Now			Anticipated in 5-10 years		
Survey Item	Average Importance Ranking	Your Rank	New Rank:	Average Importance Ranking	Your Rank	New Rank:
3.1.6. The amount of money generated by online courses is a good measure to track the spread of a distance education program.	2.36		No change	2.58		No change
3.1.7. Improved, average student evaluations of online courses is a good measure of the spread of a distance education program.	2.23		No change	2.36		No change

Survey area 3.2. What metrics can be used to determine that e-mentoring has led to increased: **depth (internalization of the goal as demonstrated by participative behavior)?**

	Now			Anticipated in 5-10 years		
Survey Item	Average Importance Ranking	Your Rank	New Rank:	Average Importance Ranking	Your Rank	New Rank:
3.2.7. The number of articles published within the department about e-mentoring in higher education is a good metric to track the depth of a distance education program.	1.50		No change	1.80		No change
3.2.8. Feedback indicating increased quality of course delivery as articulated by those in e-mentoring relationships is a good metric to track the depth of a distance education program.	2.57		No change	2.53		No change

Please provide any comments you would like to share with me about the survey. If the comment pertains to a particular survey item, please indicate with which Research Question your comment pertains.

Please provide comments in this text box...

Thank you for your contribution to this study,

Judith Lewis

APPENDIX L

RESPONSE FREQUENCIES

Consensus Frequencies: Now
Missing Values Included

		Count
Q11a1	No Judgment	1
	Unimportant	7
	Helpful	6
	Important	0
	Very Important	2
	Total	16
Q11a2	No Judgment	0
	Unimportant	0
	Helpful	4
	Important	4
	Very Important	8
	Total	16
Q11a3	No Judgment	0
	Unimportant	0
	Helpful	2
	Important	8
	Very Important	6
	Total	16
Q11a4	No Judgment	0
	Unimportant	1
	Helpful	5
	Important	5
	Very Important	5
	Total	16
Q11a5	No Judgment	0
	Unimportant	1
	Helpful	0
	Important	8

Consensus Frequencies: Future
Missing Values Included

		Count
Q11a1	No Judgment	1
	Unimportant	6
	Helpful	6
	Important	2
	Very Important	1
	Total	16
Q11a2	No Judgment	0
	Unimportant	0
	Helpful	3
	Important	7
	Very Important	6
	Total	16
Q11a3	No Judgment	0
	Unimportant	0
	Helpful	3
	Important	6
	Very Important	7
	Total	16
Q11a4	No Judgment	0
	Unimportant	1
	Helpful	5
	Important	5
	Very Important	5
	Total	16
Q11a5	No Judgment	0
	Unimportant	0
	Helpful	2
	Important	7

Consensus Frequencies: Now Missing Values Included

		Count
	Very Important	7
	Total	16
Q11a6	No Judgment	0
	Unimportant	0
	Helpful	3
	Important	5
	Very Important	8
	Total	16
Q11a7	No Judgment	0
	Unimportant	1
	Helpful	6
	Important	6
	Very Important	3
	Total	16
Q11a8	No Judgment	0
	Unimportant	8
	Helpful	4
	Important	2
	Very Important	2
	Total	16
Q11a9	No Judgment	1
	Unimportant	4
	Helpful	6
	Important	3
	Very Important	2
	Total	16
Q11a10	No Judgment	0
	Unimportant	0

Consensus Frequencies: Future Missing Values Included

		Count
	Very Important	7
	Total	16
Q11a6	No Judgment	0
	Unimportant	0
	Helpful	2
	Important	7
	Very Important	7
	Total	16
Q11a7	No Judgment	0
	Unimportant	1
	Helpful	7
	Important	6
	Very Important	2
	Total	16
Q11a8	No Judgment	0
	Unimportant	6
	Helpful	5
	Important	4
	Very Important	1
	Total	16
Q11a9	No Judgment	1
	Unimportant	4
	Helpful	6
	Important	3
	Very Important	2
	Total	16
Q11a10	No Judgment	1
	Unimportant	0

Consensus Frequencies: Now
Missing Values Included

		Count
	Helpful	6
	Important	6
	Very Important	4
	Total	16
Q11a11	No Judgment	0
	Unimportant	0
	Helpful	4
	Important	7
	Very Important	5
	Total	16
Q11a12	No Judgment	1
	Unimportant	2
	Helpful	5
	Important	3
	Very Important	5
	Total	16
Q11a13	No Judgment	1
	Unimportant	3
	Helpful	6
	Important	2
	Very Important	4
	Total	16
Q11a14	No Judgment	0
	Unimportant	2
	Helpful	7
	Important	4
	Very Important	3
	Total	16

Consensus Frequencies: Future
Missing Values Included

		Count
	Helpful	7
	Important	4
	Very Important	4
	Total	16
Q11a11	No Judgment	0
	Unimportant	0
	Helpful	3
	Important	9
	Very Important	4
	Total	16
Q11a12	No Judgment	0
	Unimportant	2
	Helpful	6
	Important	3
	Very Important	5
	Total	16
Q11a13	No Judgment	0
	Unimportant	3
	Helpful	6
	Important	3
	Very Important	4
	Total	16
Q11a14	No Judgment	0
	Unimportant	1
	Helpful	7
	Important	6
	Very Important	2
	Total	16

Consensus Frequencies: Now
Missing Values Included

		Count
Q11a15	No Judgment	2
	Unimportant	5
	Helpful	4
	Important	3
	Very Important	2
	Total	16
Q11a16	No Judgment	1
	Unimportant	0
	Helpful	2
	Important	7
	Very Important	6
	Total	16
Q11a17	No Judgment	2
	Unimportant	2
	Helpful	7
	Important	4
	Very Important	1
	Total	16
Q11b1	No Judgment	0
	Unimportant	2
	Helpful	6
	Important	5
	Very Important	3
	Total	16
Q11b2	No Judgment	0
	Unimportant	1
	Helpful	1
	Important	9

Consensus Frequencies: Future
Missing Values Included

		Count
Q11a15	No Judgment	2
	Unimportant	5
	Helpful	3
	Important	3
	Very Important	3
	Total	16
Q11a16	No Judgment	1
	Unimportant	0
	Helpful	6
	Important	6
	Very Important	3
	Total	16
Q11a17	No Judgment	2
	Unimportant	3
	Helpful	8
	Important	2
	Very Important	1
	Total	16
Q11b1	No Judgment	0
	Unimportant	2
	Helpful	6
	Important	5
	Very Important	3
	Total	16
Q11b2	No Judgment	0
	Unimportant	0
	Helpful	2
	Important	10

Consensus Frequencies: Now
Missing Values Included

		Count
	Very Important	5
	Total	16
Q11b3	No Judgment	0
	Unimportant	0
	Helpful	1
	Important	11
	Very Important	4
	Total	16
Q11b4	No Judgment	0
	Unimportant	3
	Helpful	7
	Important	3
	Very Important	3
	Total	16
Q11b5	No Judgment	0
	Unimportant	0
	Helpful	0
	Important	4
	Very Important	12
	Total	16
Q11b6	No Judgment	0
	Unimportant	0
	Helpful	1
	Important	6
	Very Important	9
	Total	16
Q11b7	No Judgment	1
	Unimportant	0

Consensus Frequencies: Future
Missing Values Included

		Count
	Very Important	4
	Total	16
Q11b3	No Judgment	0
	Unimportant	0
	Helpful	1
	Important	12
	Very Important	3
	Total	16
Q11b4	No Judgment	0
	Unimportant	3
	Helpful	7
	Important	4
	Very Important	2
	Total	16
Q11b5	No Judgment	0
	Unimportant	0
	Helpful	0
	Important	7
	Very Important	9
	Total	16
Q11b6	No Judgment	0
	Unimportant	0
	Helpful	1
	Important	7
	Very Important	8
	Total	16
Q11b7	No Judgment	0
	Unimportant	0

Consensus Frequencies: Now
Missing Values Included

		Count
	Helpful	7
	Important	6
	Very Important	2
	Total	16
Q11b8	No Judgment	1
	Unimportant	3
	Helpful	8
	Important	3
	Very Important	1
	Total	16
Q11b9	No Judgment	2
	Unimportant	3
	Helpful	4
	Important	4
	Very Important	3
	Total	16
Q11b10	No Judgment	1
	Unimportant	0
	Helpful	5
	Important	6
	Very Important	4
	Total	16
Q11b11	No Judgment	0
	Unimportant	0
	Helpful	4
	Important	8
	Very Important	4
	Total	16

Consensus Frequencies: Future
Missing Values Included

		Count
	Helpful	8
	Important	6
	Very Important	2
	Total	16
Q11b8	No Judgment	1
	Unimportant	3
	Helpful	6
	Important	5
	Very Important	1
	Total	16
Q11b9	No Judgment	1
	Unimportant	3
	Helpful	4
	Important	6
	Very Important	2
	Total	16
Q11b10	No Judgment	0
	Unimportant	0
	Helpful	5
	Important	5
	Very Important	6
	Total	16
Q11b11	No Judgment	0
	Unimportant	0
	Helpful	1
	Important	11
	Very Important	4
	Total	16

Consensus Frequencies: Now
Missing Values Included

		Count
Q11b12	No Judgment	1
	Unimportant	1
	Helpful	4
	Important	7
	Very Important	3
	Total	16
Q11b13	No Judgment	2
	Unimportant	5
	Helpful	3
	Important	5
	Very Important	1
	Total	16
Q11b14	No Judgment	1
	Unimportant	1
	Helpful	5
	Important	6
	Very Important	3
	Total	16
Q11b15	No Judgment	4
	Unimportant	4
	Helpful	3
	Important	3
	Very Important	2
	Total	16
Q11b16	No Judgment	3
	Unimportant	2
	Helpful	7
	Important	3

Consensus Frequencies: Future
Missing Values Included

		Count
Q11b12	No Judgment	0
	Unimportant	1
	Helpful	4
	Important	8
	Very Important	3
	Total	16
Q11b13	No Judgment	1
	Unimportant	5
	Helpful	3
	Important	6
	Very Important	1
	Total	16
Q11b14	No Judgment	0
	Unimportant	1
	Helpful	5
	Important	7
	Very Important	3
	Total	16
Q11b15	No Judgment	3
	Unimportant	4
	Helpful	4
	Important	3
	Very Important	2
	Total	16
Q11b16	No Judgment	3
	Unimportant	1
	Helpful	7
	Important	3

Consensus Frequencies: Now Missing Values Included

		Count
	Very Important	1
	Total	16
Q11b17	No Judgment	2
	Unimportant	0
	Helpful	8
	Important	4
	Very Important	2
	Total	16
Q11b18	No Judgment	1
	Unimportant	0
	Helpful	4
	Important	8
	Very Important	3
	Total	16
Q11c1	No Judgment	0
	Unimportant	1
	Helpful	3
	Important	8
	Very Important	4
	Total	16
Q11c2	No Judgment	0
	Unimportant	0
	Helpful	1
	Important	10
	Very Important	5
	Total	16
Q11c3	No Judgment	0
	Unimportant	0

Consensus Frequencies: Future Missing Values Included

		Count
	Very Important	2
	Total	16
Q11b17	No Judgment	3
	Unimportant	0
	Helpful	9
	Important	2
	Very Important	2
	Total	16
Q11b18	No Judgment	1
	Unimportant	0
	Helpful	6
	Important	7
	Very Important	2
	Total	16
Q11c1	No Judgment	0
	Unimportant	0
	Helpful	4
	Important	8
	Very Important	4
	Total	16
Q11c2	No Judgment	0
	Unimportant	0
	Helpful	1
	Important	9
	Very Important	6
	Total	16
Q11c3	No Judgment	0
	Unimportant	0

Consensus Frequencies: Now Missing Values Included

		Count
	Helpful	2
	Important	5
	Very Important	9
	Total	16
Q11c4	No Judgment	0
	Unimportant	0
	Helpful	0
	Important	7
	Very Important	9
	Total	16
Q11c5	No Judgment	0
	Unimportant	0
	Helpful	0
	Important	8
	Very Important	8
	Total	16
Q11c6	No Judgment	0
	Unimportant	0
	Helpful	3
	Important	10
	Very Important	3
	Total	16
Q11c7	No Judgment	0
	Unimportant	1
	Helpful	4
	Important	6
	Very Important	5
	Total	16

Consensus Frequencies: Future Missing Values Included

		Count
	Helpful	3
	Important	4
	Very Important	9
	Total	16
Q11c4	No Judgment	0
	Unimportant	0
	Helpful	1
	Important	5
	Very Important	10
	Total	16
Q11c5	No Judgment	0
	Unimportant	0
	Helpful	1
	Important	6
	Very Important	9
	Total	16
Q11c6	No Judgment	0
	Unimportant	0
	Helpful	3
	Important	9
	Very Important	4
	Total	16
Q11c7	No Judgment	0
	Unimportant	1
	Helpful	2
	Important	7
	Very Important	6
	Total	16

Consensus Frequencies: Now
Missing Values Included

		Count
Q11c8	No Judgment	0
	Unimportant	0
	Helpful	7
	Important	6
	Very Important	3
	Total	16
Q211	No Judgment	1
	Unimportant	1
	Helpful	5
	Important	6
	Very Important	3
	Total	16
Q212	No Judgment	2
	Unimportant	1
	Helpful	4
	Important	6
	Very Important	3
	Total	16
Q213	No Judgment	1
	Unimportant	0
	Helpful	4
	Important	7
	Very Important	4
	Total	16
Q214	No Judgment	2
	Unimportant	2
	Helpful	4
	Important	4

Consensus Frequencies: Future
Missing Values Included

		Count
Q11c8	No Judgment	0
	Unimportant	0
	Helpful	6
	Important	6
	Very Important	4
	Total	16
Q211	No Judgment	1
	Unimportant	0
	Helpful	5
	Important	8
	Very Important	2
	Total	16
Q212	No Judgment	1
	Unimportant	1
	Helpful	4
	Important	8
	Very Important	2
	Total	16
Q213	No Judgment	1
	Unimportant	0
	Helpful	3
	Important	9
	Very Important	3
	Total	16
Q214	No Judgment	1
	Unimportant	3
	Helpful	3
	Important	5

Consensus Frequencies: Now Missing Values Included

		Count
	Very Important	4
	Total	16
Q215	No Judgment	1
	Unimportant	0
	Helpful	2
	Important	4
	Very Important	9
	Total	16
Q216	No Judgment	1
	Unimportant	0
	Helpful	1
	Important	5
	Very Important	9
	Total	16
Q217	No Judgment	1
	Unimportant	0
	Helpful	1
	Important	7
	Very Important	7
	Total	16
Q218	No Judgment	1
	Unimportant	0
	Helpful	10
	Important	4
	Very Important	1
	Total	16
Q221	No Judgment	0
	Unimportant	0

Consensus Frequencies: Future Missing Values Included

		Count
	Very Important	4
	Total	16
Q215	No Judgment	1
	Unimportant	0
	Helpful	1
	Important	5
	Very Important	9
	Total	16
Q216	No Judgment	2
	Unimportant	0
	Helpful	1
	Important	9
	Very Important	4
	Total	16
Q217	No Judgment	1
	Unimportant	0
	Helpful	0
	Important	9
	Very Important	6
	Total	16
Q218	No Judgment	1
	Unimportant	1
	Helpful	9
	Important	3
	Very Important	2
	Total	16
Q221	No Judgment	0
	Unimportant	0

Consensus Frequencies: Now
Missing Values Included

		Count
	Helpful	6
	Important	6
	Very Important	4
	Total	16
Q222	No Judgment	1
	Unimportant	1
	Helpful	7
	Important	2
	Very Important	5
	Total	16
Q222a	No Judgment	1
	Unimportant	6
	Helpful	7
	Important	1
	Very Important	1
	Total	16
Q223	No Judgment	0
	Unimportant	0
	Helpful	8
	Important	5
	Very Important	3
	Total	16
Q224	No Judgment	0
	Unimportant	1
	Helpful	6
	Important	8
	Very Important	1
	Total	16

Consensus Frequencies: Future
Missing Values Included

		Count
	Helpful	5
	Important	7
	Very Important	4
	Total	16
Q222	No Judgment	1
	Unimportant	0
	Helpful	7
	Important	4
	Very Important	4
	Total	16
Q222a	No Judgment	1
	Unimportant	2
	Helpful	10
	Important	1
	Very Important	2
	Total	16
Q223	No Judgment	0
	Unimportant	0
	Helpful	7
	Important	7
	Very Important	2
	Total	16
Q224	No Judgment	0
	Unimportant	1
	Helpful	5
	Important	7
	Very Important	3
	Total	16

Consensus Frequencies: Now
Missing Values Included

		Count
Q225	No Judgment	0
	Unimportant	3
	Helpful	8
	Important	3
	Very Important	2
	Total	16
Q226	No Judgment	2
	Unimportant	1
	Helpful	3
	Important	9
	Very Important	1
	Total	16
Q231	No Judgment	0
	Unimportant	1
	Helpful	3
	Important	1
	Very Important	11
	Total	16
Q232	No Judgment	2
	Unimportant	1
	Helpful	2
	Important	6
	Very Important	5
	Total	16
Q233	No Judgment	0
	Unimportant	1
	Helpful	10
	Important	3

Consensus Frequencies: Future
Missing Values Included

		Count
Q225	No Judgment	1
	Unimportant	4
	Helpful	7
	Important	2
	Very Important	2
	Total	16
Q226	No Judgment	1
	Unimportant	1
	Helpful	4
	Important	8
	Very Important	2
	Total	16
Q231	No Judgment	0
	Unimportant	1
	Helpful	2
	Important	4
	Very Important	9
	Total	16
Q232	No Judgment	3
	Unimportant	1
	Helpful	1
	Important	5
	Very Important	6
	Total	16
Q233	No Judgment	0
	Unimportant	2
	Helpful	10
	Important	2

Consensus Frequencies: Now
Missing Values Included

		Count
	Very Important	2
	Total	16
Q234	No Judgment	0
	Unimportant	3
	Helpful	5
	Important	4
	Very Important	4
	Total	16
Q235	No Judgment	1
	Unimportant	2
	Helpful	3
	Important	7
	Very Important	3
	Total	16
Q236	No Judgment	0
	Unimportant	0
	Helpful	0
	Important	11
	Very Important	5
	Total	16
Q237	No Judgment	0
	Unimportant	2
	Helpful	10
	Important	3
	Very Important	1
	Total	16
Q311	No Judgment	2
	Unimportant	0

Consensus Frequencies: Future
Missing Values Included

		Count
	Very Important	2
	Total	16
Q234	No Judgment	2
	Unimportant	2
	Helpful	5
	Important	4
	Very Important	3
	Total	16
Q235	No Judgment	1
	Unimportant	2
	Helpful	3
	Important	6
	Very Important	4
	Total	16
Q236	No Judgment	0
	Unimportant	0
	Helpful	2
	Important	9
	Very Important	5
	Total	16
Q237	No Judgment	0
	Unimportant	0
	Helpful	12
	Important	3
	Very Important	1
	Total	16
Q311	No Judgment	2
	Unimportant	2

Consensus Frequencies: Now
Missing Values Included

		Count
	Helpful	8
	Important	4
	Very Important	2
	Total	16
Q312	No Judgment	1
	Unimportant	0
	Helpful	9
	Important	5
	Very Important	1
	Total	16
Q313	No Judgment	1
	Unimportant	2
	Helpful	7
	Important	5
	Very Important	1
	Total	16
Q314	No Judgment	0
	Unimportant	3
	Helpful	7
	Important	4
	Very Important	2
	Total	16
Q315	No Judgment	1
	Unimportant	1
	Helpful	6
	Important	5
	Very Important	3
	Total	16

Consensus Frequencies: Future
Missing Values Included

		Count
	Helpful	6
	Important	3
	Very Important	3
	Total	16
Q312	No Judgment	2
	Unimportant	1
	Helpful	6
	Important	3
	Very Important	4
	Total	16
Q313	No Judgment	1
	Unimportant	3
	Helpful	5
	Important	7
	Very Important	0
	Total	16
Q314	No Judgment	0
	Unimportant	3
	Helpful	6
	Important	5
	Very Important	2
	Total	16
Q315	No Judgment	2
	Unimportant	2
	Helpful	4
	Important	5
	Very Important	3
	Total	16

Consensus Frequencies: Now
Missing Values Included

		Count
Q316	No Judgment	3
	Unimportant	1
	Helpful	6
	Important	5
	Very Important	1
	Total	16
Q317	No Judgment	1
	Unimportant	3
	Helpful	6
	Important	6
	Very Important	0
	Total	16
Q321	No Judgment	1
	Unimportant	0
	Helpful	2
	Important	7
	Very Important	6
	Total	16
Q322	No Judgment	0
	Unimportant	0
	Helpful	8
	Important	7
	Very Important	1
	Total	16
Q323	No Judgment	1
	Unimportant	2
	Helpful	6
	Important	6

Consensus Frequencies: Future
Missing Values Included

		Count
Q316	No Judgment	3
	Unimportant	1
	Helpful	7
	Important	1
	Very Important	4
	Total	16
Q317	No Judgment	1
	Unimportant	2
	Helpful	7
	Important	6
	Very Important	0
	Total	16
Q321	No Judgment	1
	Unimportant	1
	Helpful	1
	Important	6
	Very Important	7
	Total	16
Q322	No Judgment	0
	Unimportant	2
	Helpful	6
	Important	5
	Very Important	3
	Total	16
Q323	No Judgment	1
	Unimportant	3
	Helpful	4
	Important	6

Consensus Frequencies: Now
Missing Values Included

		Count
	Very Important	1
	Total	16
Q324	No Judgment	1
	Unimportant	2
	Helpful	4
	Important	8
	Very Important	1
	Total	16
Q325	No Judgment	0
	Unimportant	2
	Helpful	5
	Important	7
	Very Important	2
	Total	16
Q326	No Judgment	1
	Unimportant	3
	Helpful	7
	Important	4
	Very Important	1
	Total	16
Q327	No Judgment	0
	Unimportant	9
	Helpful	6
	Important	1
	Very Important	0
	Total	16
Q328	No Judgment	0
	Unimportant	1

Consensus Frequencies: Future
Missing Values Included

		Count
	Very Important	2
	Total	16
Q324	No Judgment	1
	Unimportant	3
	Helpful	4
	Important	5
	Very Important	3
	Total	16
Q325	No Judgment	0
	Unimportant	1
	Helpful	6
	Important	6
	Very Important	3
	Total	16
Q326	No Judgment	2
	Unimportant	3
	Helpful	6
	Important	3
	Very Important	2
	Total	16
Q327	No Judgment	0
	Unimportant	7
	Helpful	6
	Important	2
	Very Important	1
	Total	16
Q328	No Judgment	0
	Unimportant	1

Consensus Frequencies: Now
Missing Values Included

		Count
	Helpful	6
	Important	7
	Very Important	2
	Total	16
Q331	No Judgment	1
	Unimportant	0
	Helpful	9
	Important	6
	Very Important	0
	Total	16
Q332	No Judgment	1
	Unimportant	2
	Helpful	2
	Important	9
	Very Important	2
	Total	16
Q333	No Judgment	1
	Unimportant	2
	Helpful	8
	Important	3
	Very Important	2
	Total	16
Q334	No Judgment	1
	Unimportant	2
	Helpful	3
	Important	8
	Very Important	2
	Total	16

Consensus Frequencies: Future
Missing Values Included

		Count
	Helpful	6
	Important	7
	Very Important	2
	Total	16
Q331	No Judgment	2
	Unimportant	2
	Helpful	6
	Important	4
	Very Important	2
	Total	16
Q332	No Judgment	1
	Unimportant	1
	Helpful	4
	Important	7
	Very Important	3
	Total	16
Q333	No Judgment	1
	Unimportant	4
	Helpful	7
	Important	1
	Very Important	3
	Total	16
Q334	No Judgment	1
	Unimportant	2
	Helpful	3
	Important	8
	Very Important	2
	Total	16

Consensus Frequencies: Now
Missing Values Included

		Count
Q335	No Judgment	0
	Unimportant	0
	Helpful	2
	Important	8
	Very Important	6
	Total	16
Q336	No Judgment	0
	Unimportant	1
	Helpful	6
	Important	6
	Very Important	3
	Total	16
Q337	No Judgment	0
	Unimportant	1
	Helpful	4
	Important	8
	Very Important	3
	Total	16
Q338	No Judgment	0
	Unimportant	0
	Helpful	4
	Important	8
	Very Important	4
	Total	16
Q341	No Judgment	1
	Unimportant	0
	Helpful	2
	Important	6

Consensus Frequencies: Future
Missing Values Included

		Count
Q335	No Judgment	0
	Unimportant	0
	Helpful	3
	Important	7
	Very Important	6
	Total	16
Q336	No Judgment	0
	Unimportant	2
	Helpful	5
	Important	5
	Very Important	4
	Total	16
Q337	No Judgment	0
	Unimportant	2
	Helpful	4
	Important	8
	Very Important	2
	Total	16
Q338	No Judgment	0
	Unimportant	0
	Helpful	6
	Important	6
	Very Important	4
	Total	16
Q341	No Judgment	1
	Unimportant	0
	Helpful	1
	Important	6

Consensus Frequencies: Now
Missing Values Included

		Count
	Very Important	7
	Total	16
Q342	No Judgment	0
	Unimportant	0
	Helpful	3
	Important	8
	Very Important	5
	Total	16
Q343	No Judgment	0
	Unimportant	0
	Helpful	4
	Important	9
	Very Important	3
	Total	16
Q344	No Judgment	2
	Unimportant	1
	Helpful	2
	Important	8
	Very Important	3
	Total	16
Q345	No Judgment	2
	Unimportant	1
	Helpful	1
	Important	8
	Very Important	4
	Total	16

Consensus Frequencies: Future
Missing Values Included

		Count
	Very Important	8
	Total	16
Q342	No Judgment	0
	Unimportant	0
	Helpful	5
	Important	4
	Very Important	7
	Total	16
Q343	No Judgment	0
	Unimportant	0
	Helpful	5
	Important	8
	Very Important	3
	Total	16
Q344	No Judgment	2
	Unimportant	1
	Helpful	5
	Important	4
	Very Important	4
	Total	16
Q345	No Judgment	2
	Unimportant	1
	Helpful	2
	Important	6
	Very Important	5
	Total	16

APPENDIX M

WILCOXON ANALYSES

NPTESTS PERFORMED BY IBM SPSS STATISTICS VERSION 21

/RELATED TEST(MeansFuture MeansNow) WILCOXON

/CRITERIA ALPHA=0.05 CILEVEL=95.

Nonparametric Tests: Wilcoxon Q1.1.a Now vs. Future Consensus Means

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between MeansFuture and MeansNow equals 0.	Related-Samples Wilcoxon Signed Rank Test	.649	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Nonparametric Tests : Wilcoxon Q1.1.b Now vs. Future Consensus Means

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between MeansFuture and MeansNow equals 0.	Related-Samples Wilcoxon Signed Rank Test	.663	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Nonparametric Tests : Wilcoxon Q1.1.c Now vs. Future Consensus Means

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between MeansFuture and MeansNow equals 0.	Related-Samples Wilcoxon Signed Rank Test	.084	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Nonparametric Tests : Wilcoxon Survey Area 2.1 Now vs. Future Consensus Means

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between MeansFuture and MeansNow equals 0.	Related-Samples Wilcoxon Signed Rank Test	.752	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Nonparametric Tests: Wilcoxon Survey Area 2.2 Now vs. Future Consensus Means

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between MeansFuture and MeansNow equals 0.	Related-Samples Wilcoxon Signed Rank Test	.128	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Nonparametric Tests: Wilcoxon Survey Area 2.3 Now vs. Future Consensus Means

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between MeansFuture and MeansNow equals 0.	Related-Samples Wilcoxon Signed Rank Test	.866	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Nonparametric Tests: Wilcoxon Survey Area 3.1 Now vs. Future Consensus Means

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between MeansFuture and MeansNow equals 0.	Related-Samples Wilcoxon Signed Rank Test	.398	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Nonparametric Tests: Wilcoxon Survey Area 3.2 Now vs. Future Consensus Means

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between MeansFuture and MeansNow equals 0.	Related-Samples Wilcoxon Signed Rank Test	.080	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Nonparametric Tests: Wilcoxon Survey Area 3.3 Now vs. Future Consensus Means

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between MeansFuture and MeansNow equals 0.	Related-Samples Wilcoxon Signed Rank Test	.176	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Nonparametric Tests: Wilcoxon Survey Area 3.4 Now vs. Future Consensus Means

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between MeansFuture and MeansNow equals 0.	Related-Samples Wilcoxon Signed Rank Test	.593	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.