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# A QUALITY SCORECARD FOR THE ADMINISTRATION OF ONLINE EDUCATION PROGRAMS: A DELPHI STUDY

by

Kaye Shelton

A DISSERTATION

Presented to the Faculty of

The Graduate College at the University of Nebraska

In Partial Fulfillment of the Requirements

For the Degree of Doctor of Philosophy

Major: Educational Studies

(Educational Leadership and Higher Education)

Under the Supervision of Professor Jody Isernhagen

Lincoln, Nebraska

September, 2010

A QUALITY SCORECARD FOR THE ADMINISTRATION OF ONLINE EDUCATION PROGRAMS: A DELPHI STUDY

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University of Nebraska, 2010

Adviser: Jody Isernhagen

As the demands for public accountability increase for the higher education industry, institutions are seeking methods for continuous improvement in order to demonstrate quality within programs and processes, including those provided through online education. Because of the rapid growth of online education programs, institutions are further called upon to demonstrate that quality education is being delivered to students at a distance. This study sought to create such a method to provide institutions offering online education an instrument for assessing quality within their programs: a quality scorecard for the administration of online education programs.

A six round Delphi study was undertaken with 43 experts in the administration of online education programs. The panel of experts agreed upon 70 quality indicators that administrators of online education programs should examine within their programs to evaluate quality. A method for scoring was also developed. The original set of quality indicators from the Institute for Higher Education Policy study, *Quality on the Line: Benchmarks for Success in Internet-Based Distance Education* (2000) were used as a starting point and were determined to be still valid in 2010, with modifications. An additional 45 quality indicators were added that resulted in a quality scorecard that

provides industry agreed upon standards for online education programs to use for quality evaluation.

*Keywords:* Quality, higher education, online education, distance learning, quality scorecard, quality assessment

September, 2010

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## DEDICATION

This research is dedicated to all online education program administrators who strive to deliver quality education to students at a distance—

Don't ever give up . . . our students are worth it!

**Acknowledgements**

There are many that were instrumental to this dissertation because of their unwavering support and encouragement. First, I want to thank my Heavenly Father, who truly provided miracles throughout this entire journey. I will always be amazed at all that He did for me to realize my dream.

My committee chair, Dr. Jody Isernhagen, has been incredible to work with during my entire time at the University of Nebraska-Lincoln. It is such a privilege to work with someone who truly cares about her students and their success—she made my experience at UNL much richer than I ever expected. I am so appreciative of the wisdom, input, and guidance of my committee members, Dr. Jim King, Dr. Larry Dlugosh, and Dr. Donald Uerling during this journey. Their suggestions for improvement were invaluable and I am so grateful for their support in pursuing this research. The University of Nebraska employs some of the finest faculty members in the country and I am very privileged to have been mentored by them.

I am so grateful for the active interest and support of this project by Dr. Janet Moore and the Sloan Consortium. Thank goodness there is an organization like Sloan-C who is dedicated to quality online education. I must also say thank you to my expert panel, whose extensive experience in the administration of online education programs made this research study successful and a joy to complete. I pray the results of the research may be beneficial for all of us!

I want to thank my husband Rick, for believing in me, the constant encouragement, everlasting support, and all the extra chores around the house—I love you and promise, *no more classes*! To my wonderful sons, TJ, Matt, and Nate, and sweet

daughter-in-law Jessica, I hope you know how much I love each of you and how thankful I am that you are in my life. Thank you to my mom, family, and close friends for cheering me on and telling me I could do it. There were times I wanted to give up and you were there to say, *keep going*!

There are many at Dallas Baptist University who cheered me on throughout this very long process. Dr. Gary Cook, DBU President, allowed me to focus on delivering quality online education with his full support and Dr. Gail Linam, my supervisor, mentor, and precious friend . . . your example of quality leadership will always be, for me, the best example of true excellence and dedication to quality that never waivers. I am so blessed to have you in my life—hearts united for quality education. I would also like to acknowledge Dr. Sue Kavli, who suggested the Delphi method as an option for this study, for verifying my statistical data, and for ongoing encouragement. I really appreciate you letting me bend your ear along the way. Thank you to all my friends and coworkers at DBU, who have reassured me, I could finish this!

Finally, I want to say thank you to all of my colleagues in distance learning. We are a unique bunch, driven by quality and passionate for the possibilities our field may yield. I am privileged to be a part of such a wonderful group.

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# Chapter I

## Introduction

The development of the Internet has forever changed higher education and distance learning programs. Prior to its arrival, distance education, also called distance learning or distributed education, used varied methods for course delivery such as mail correspondence, telecourses, or satellite delivery, and was clearly on the periphery of higher education. When course delivery using the Internet became an option—creating the new phrase *online education*—it wasn't long before enrollments began to rapidly increase and online education became firmly entrenched within higher education. In fact, numerous studies cite tremendous growth in online education, which is now far outpacing that of traditional higher education with the majority of accredited institutions now offering distance learning courses (Allen & Seaman, 2008; Parsad & Lewis, 2008).

While institutions willingly responded to the increased student demands for flexibility and convenience, others grudgingly responded because of the increased competition for student enrollment. However, after experiencing success with a few online courses, many institutions developed full degree programs to be offered completely online. While the online programs were expected to increase student access and increase enrollment, both administrators and faculty expressed concern regarding quality (Benson, 2003) such as how to measure it and what evaluation methods should be used for continuous improvement strategies and accreditation requirements. Today, in light of the public call for accountability, quality assurance of educational programs is still one of the greatest challenges in higher education today (Bates & Poole, 2003; Meyer, 2004; Sallis, 1996).

**Background of the Study**

Like many industries in the 21st century, higher education is finding that demands for accountability (Wergin, 2005) along with increased competition, stimulate a need for developing quality improvement strategies. In fact, a recent research study by Rice and Taylor (2003) found that 88% of the colleges and universities surveyed affirmed they were engaged in some form of continuous improvement strategy and striving toward increased quality in all areas of the institution, including distance and online learning programs. The much talked about rapid growth of online education programs may be the reason that the regional accreditors began to look closely at online programs and their claims of quality.

Interestingly, many institutions advertise using the word "quality" with online education programs because they believe it creates public interest and market advantage. However, quality online education is still difficult to define (Meyer, 2002) and, many have recognized the need for a more comprehensive system for evaluation (Lockhart & Lacy, 2002). Unlike industry recognized quality stamps for corporations, such as the Total Quality Management criteria for excellence or the Malcolm Baldrige National Quality Award, an instrument is yet to exist for online education for measuring quality programs, and facilitating strategic planning and program improvement. However, because of the tremendous growth in online education, higher education could benefit from an instrument comprised of industry standards endorsed by online education administrators.

Several rubrics do exist for measuring quality online course materials, such as University of Maryland's Quality Matters, California State University-Chico's rubric for

online instruction, and Blackboard's Exemplary course rubric. In fact, the Quality Matters program is an industry recognized quality seal for online course materials and used by many programs in both the United States and other countries. Online education administrators could greatly benefit from a quality indicator like Quality Matters to not only determine program quality but also assist with future goal setting and strategic planning. However, what are the standards that online education administrators believe are needed for measuring and quantifying quality in online education that may also support strategic planning and program improvements? Online education administrators cannot afford to not take the issue of quality seriously because students may go elsewhere in search of quality educational programs (Carnevale, 2006).

A research study (1998) by the Institute for Higher Education Policy (IHEP) cited a significant need for improved research for distance learning programs and quality standards. Commissioned by the National Education Association and Blackboard, Inc., the IHEP followed with a second study (2000) that identified 24 separate quality indicators chosen by various respected online education leaders of higher education institutions out of the original 45 indicators provided by a literature search. The latter report, *Quality on the Line: Benchmarks for Success in Internet-Based Distance Education,* is still referenced throughout the literature today including a recent dissertation (Dilbeck, 2008) that used the indicators as a basis for the survey instrument.

While there are numerous articles and dissertations focused on quality online education programs in higher education, only two recent studies (Hirner, 2008; Mariasingam, 2005) sought to identify benchmarks for quality online education; however, neither assigned numerical values for quantifying the evaluation process. For

his recent dissertation, Dilbeck (2008) surveyed over 200 community college administrators to determine their perception of the importance and presence of quality indicators for online education programs, using the 24 quality indicators identified in the IHEP (2000) study. While his study affirmed that the 24 indicators are indeed a viable tool for reviewing quality in online programs, it did not attempt to create a measurement tool that could also be used for quality improvement. A study to develop an instrument for numerical measurement or scorecard developed by administrators of online education programs that could be used in various types of higher education institutions could not be located. Therefore, this study sought to determine if experts in the administration of online education in various types of higher education institutions believe the original 24 indicators of quality online education (IHEP, 2000) are still relevant today and if additional indicators are needed to identify quality online education programs. The final phase of the study resulted in a numeric scorecard being constructed for measuring quality in online programs from an administrator's perspective that could also support strategic planning and program improvements.

**Problem Statement**

Over the years, numerous conversations with colleagues nationwide, who oversee online education programs, indicated strong interest in an instrument that could be used for evaluating quality online programs. Onay (2002) recognized that maintaining academic standards for online courses and programs is a concern for many institutions. Thompson and Irele (2007) surmised that while online education evaluation does occur, it is "often poorly designed and/or underfunded; it is more of an afterthought rather than an integral part of planning and implementation" (p. 419). Stella and Gnanam (2004)

believed that quality indicators for traditional education are clearly defined but applicable standards are needed for benchmarking quality assurance in distance education. They recommended that a group of experts in distance learning be involved in the evaluation process.

After a thorough review of the literature, it became evident that a standardized, industry recognized instrument that measures quality in online education programs in higher education did not yet exist. Although two Delphi studies (Hirner, 2008; Mariasingam, 2005) identified numerous quality indicators, a scorecard or rubric was still needed by program administrators to more clearly evaluate program quality to support strategic planning and program improvements. Lesht, Montague, Page, Shaik, and Smith (2006) developed an evaluation instrument for measuring quality within their own program; however, they also recommended that "a common set of metrics on key issues and program indicators" (p. 103) should be identified to allow for inter-program research comparisons and benchmarking.

**Purpose of the Study**

This study sought to determine if experts in the administration of online education of various types of higher education institutions believe the original 24 indicators of quality online education identified by the Institute for Higher Education Policy study (IHEP, 2000) are still relevant today and if additional indicators are needed to identify quality online education programs. The final phase of the study resulted in a numeric scorecard being constructed for measuring quality in online programs from an administrator's perspective that could also be used to support strategic planning and future program improvements.

**Research Questions**

The central purpose for this dissertation was the development of a scorecard to measure and quantify elements of quality within online education programs in higher education that may also support strategic planning and program improvements. The following questions guided the research:

1. Are the standards identified in the IHEP/NEA study in 2000 still relevant in 2010 for indicating quality in online education programs in higher education?
2. What additional standards should be included that address the current industry in 2010?
3. If additional standards are suggested, will they fall into the already identified themes or will new themes emerge?
4. What values will be assigned to the recommended standards that will ultimately yield a numeric scorecard for measuring quality online education programs from an online education administrator's perspective that could also support strategic planning and program improvements?
5. How will the numeric scorecard compare to other quality assessment models used in higher education, such as the Balanced Scorecard and the Malcolm Baldrige National Quality Award?

**Significance of the Study**

Much has been written about quality in higher education: how to recognize it, how to build upon it, and how to improve it. While Merriam-Webster (2008) defined quality as "a degree of excellence," Sallis (1996) offered that quality will mean different things to different people and organizations but reminded us that "pursuing quality is all

about performing to the highest standards" (p. 14). Of course, definitions and perceptions of quality will be different for various industries. For the purpose of higher education evaluation, Thompson and Irele (2007) identified quality as program characteristics and processes. For program evaluation, they suggested asking the question, "Does this program meet accepted and articulated standards of quality?" (p. 423). Sallis (1996) declared that the level of quality in a program, or the lack thereof, is the difference between an institution of excellence or mediocrity.

Higher education began a much stronger focus on quality in the 1980s and interest has significantly increased each decade with corporate quality assurance programs like Total Quality Management (TQM), the Balanced Scorecard (BSC), and the Malcolm Baldrige National Quality Award (MBQNA) now finding their way into academe. In fact, Sallis (1996) urged us to first examine business processes for quality improvement before even beginning a discussion on quality in education because many have subscribed to quality improvement initiatives for surviving in a competitive market.

Quality assurance is now "probably the most important task facing any institution" (Sallis, 1996, p. 4) so institutions should take it very seriously. However, because we are in the education industry, we tend to think we recognize quality because—we are researchers, we maintain accreditation, we have multiple resources at our disposal, and we are selective in our admissions process. That thought process may be internally acceptable, but Alstete (2007) reminded us that it may be "obviously unacceptable in the context of a quality award system" (p. 140) that is becoming more necessary today for public accountability and the increased competition for enrolling students.

The latest approach for higher education quality evaluation has been the application of business quality initiatives (Alstete, 2007). For example, Total Quality Management (TQM) and the Malcolm Baldrige National Quality Award (MBQA) were originally developed to identify quality businesses and their processes; however, education has borrowed these quality evaluation processes for accreditation reporting. It is possible these same evaluation techniques may be applicable to online education programs to indicate quality but with some modifications.

Shelton and Saltsman (2005) reminded us that thousands of online student enrollments do not alone signify quality online education; it requires that all aspects of online education be examined: online course development, faculty training and support, student support, and student satisfaction. Since 2000, many have called for quality standards for online education programs to be more clearly identified (Institute for Higher Education Policy, 1998, 2000; Khan, 2005; Lee & Dziuban, 2002; Leh & Jobin, 2002; Meyer, 2002; Onay, 2002; Shelton & Saltsman, 2005; Stella & Gnanam, 2004; Suryanarayanaravu, Srinivasacharyulu, & Mohanraj, 1995) other than defining exemplary online course materials. In fact, Claus and Dooley (2005) recommended that an evaluation instrument for measuring quality in online education programs is greatly needed and long overdue. Balanko (2002) further added that there is a need for "evaluation activities that assess alignment of pedagogy, educational activities, and desired learning outcomes, plus address specific issues of usability and benchmark achievement, [which] provide valuable information for continual improvement" (p. 7). A review of the literature could not find an evaluation activity that clearly indicated what

elements indicate quality in an online education program from an administrator's perspective.

Online education programs in higher education are growing at a tremendous rate, including an abundance of for-profit schools with lots of marketing dollars, offering complete degree programs. The competition is fierce and students are left to figure out whether or not a school has a quality program. There is truly a distinct need for some sort of quality indicator that would help students to better make informed decisions when choosing an online degree program.

**Assumptions and Limitations**

According to Creswell (1994), the study's chances of being replicated in another setting is increased when the researcher's assumptions, limitations, and personal biases are revealed because the role of the researcher is to become the primary instrument for data collection. For this study, the following assumptions were made:

1. The members of the panel of experts in the administration of online education identified by the Sloan Consortium are truly experts in their field.
2. The responses provided by the panel of experts were not influenced by other members' responses since the survey process occurred online anonymously and asynchronously.
3. The panel of experts provided rational responses based on their expert judgment.
4. The panel of experts have an interest as stakeholders in the research.

The following limitations have been identified in the literature:

- Researcher bias could affect the outcome of the study by possibly attempting to guide the study (Linstone & Turoff, 2002); therefore, an unbiased reviewer, Dr. Sue Kavli who has a Ph.D in Statistics, reviewed research tabulations and results for three of the six Delphi round of survey responses.
- Because of the time required to gain consensus and several survey rounds may be needed, the possibility of low response from panel members exists (Hsu & Sandford, 2007b). Keeney, Hasson, and McKenna (2006) suggested that the researcher should consistently remind the participant that each round of the research process is based upon their responses; therefore, their participation is critical to the research's success.
- Early on, Sackman (1975) criticized Delphi studies as not being scientific; however, Linstone and Turoff (2002) and Ziglio (1996) asserted that Delphi methodology is best used to address research questions for which a scientific approach is not suitable. Sackman's (1975) biggest criticism was that many Delphi studies were executed sloppily.
- Delbecq, Van de Ven, and Gustafson (1975) believed that decision-making process could be inhibited by:
    - Social-emotional rewards are not usually present, it could lead to a feeling of detachment from the expert panel members;
    - Verbal clarification of the responses being fed back to the panel members is not provided, there may be problems with interpretation and communication;

- Conflicting responses provided by the feedback report may not always be resolved since the majority of the responses from the panel of expert members determine group priorities.

**Definitions of Terms**

The relevant terms used in this research study are defined as follows:

*Assessment* – According to Thompson and Irele (2007), assessment determines objectives and is a subset of the overall evaluation process. For this study, the term assessment was primarily used to measure the teaching and learning process and not to fully determine quality of an online education program.

*Balanced Scorecard* – Originally developed by Harvard business professor Robert Kaplan and David Norton as a performance measurement framework, it is a strategic planning and management system that is used extensively in business and industry, government, and nonprofit organizations worldwide to align business activities to the vision and strategy of the organization, improve internal and external communications, and monitor organization performance against strategic goals (Kaplan & Norton, 1996).

*Benchmarking* – The process of comparing institutional performance metrics to either other institutions within the same industry or industry established standards.

*Continuous Quality Improvement (CQI)* – Also called Performance and Quality Improvement (PQI), it is a process of creating an environment in which management and workers strive toward constantly improving quality. Continuous Quality Improvement is often used interchangeably with Total Quality Management in the literature.

*Delphi Method* – According to Linstone and Turoff (2002), the Delphi method is an iterative research process to collect and distill the anonymous judgments of experts using a series of data collection and analysis techniques interspersed with feedback.

*Distance Education/Distance Learning* – The practice of delivering education with instructor and student being physically separated.

*E-Learning* – the practice of delivering education utilizing Internet delivery with teacher and learner connected via technology (also Online Education).

*Evaluation* – According to Thompson and Irele (2007), evaluation makes value judgments; assessment is part of the process to make those value judgments. For this study, evaluation is the term used to determine quality.

*Malcolm Baldrige National Quality Award (MBNQA)* – An award given by the President of the United States to businesses—manufacturing and service, small and large—and to education, health care and nonprofit organizations that apply and are judged to be outstanding in seven areas: leadership; strategic planning; customer and market focus; measurement, analysis, and knowledge management; workforce focus; process management; and results (National Institute of Standards and Technology, 2008).

*Online Education* – The practice of delivering education utilizing Internet delivery with teacher and learner connected via technology (also E-Learning).

*Quality Scorecard* – For this study, an instrument used to evaluate elements or characteristics of quality in online education programs.

*Quality Indicator* –For this study, a characteristic used to identify elements of quality in online programs and may be used interchangeably with "quality standard."

*Panel of Experts* – A group of research participants that are identified as experts in their field and have agreed to be members of the Delphi research study.

*Participant* – A member of the panel of experts who has agreed to participate in this research study. This term and "member of the expert panel" and "panel member" was used interchangeably throughout the study.

*Sloan Consortium (Sloan-C)* – An organization originally funded by the Alfred P. Sloan Foundation dedicated to improving the quality of online education (www.sloan-c.org).

*Total Quality Management (TQM)* - A set of management practices developed by Dr. Edward Deming that is directed toward continuous improvements, involving evaluation and assessment, resulting in a high quality of products and services, and is based on performance criteria. Those businesses and institutions demonstrating superior quality management using performance criteria may be eligible for prizes and awards from various organizations.

**Organization of the Study**

This dissertation is organized into five chapters, a bibliography, and appendices. Chapter II presents a review of the literature pertaining to quality in higher education and online education and Delphi studies in distance education. Chapter III describes the research design and methodology for the study. The Delphi process is defined and procedures for the project and data collection are outlined. The collected data from six survey rounds are analyzed in Chapter IV and Chapter V provides a discussion and summary of the findings, conclusions, and recommendations for further research. The study concludes with a bibliography of research sources and relevant appendices

including the final instrument for indicating and improving quality in online education programs as agreed upon by the panel of experts in the administration of online education (Appendix AAA).

# Chapter II

## Literature Review

This chapter presents a review of the following areas of the literature in support of this study of quality evaluation for online education programs: current recommendations for evaluating the quality of online education programs, how higher education evaluates the quality of institutions of higher learning including the use of business quality improvement processes, and the Delphi methodology and its application for research in online education.

### Quality Evaluation for Online Education Programs

Teaching courses online in higher education "holds greater promise and is subject to more suspicion than any other instructional mode in the 21st century" (Casey, 2008, p. 45). Because of this suspicion, online education has been heavily critiqued and compared to traditional teaching since its emergence as an instructional technique, in order to reveal the inadequacies and lesser quality so many assumed exists. However, to respond to those mistaken assumptions, many different approaches can be found in the literature that were developed to demonstrate that elements of quality do exist in online education programs.

There was not yet a researched-based rubric or scorecard designed to assess quality in online education programs like there are for online courses. That is because "quality is a complex and difficult concept, one that depends on a range of factors arising from the student, the curriculum, the instructional design, technology used, faculty characteristics" (Meyer, 2002, p. 101). While the total concept of quality for all program elements of a program may be difficult to grasp, it is not an excuse to ignore the need for assessing and demonstrating quality online education. Moreover, as the growth continues

as it is expected, the demand for quality will only increase as well (Cavanaugh, 2002). Because of this, the eight regional accrediting bodies all have guidelines for distance education programs and standards for evaluation (Howell, Baker, Zuehl, & Johansen, 2007).

According to the literature, there are many different approaches to evaluating quality in online education. For example, Lee and Dziuban (2002) suggested that the overall success of online education greatly depends upon the quality evaluation strategies integrated with the program. Benson (2003) explored the different meanings of quality that stakeholders brought to the table when planning an online degree program. She found the following perceptions of quality were resonant with stakeholders: quality is overcoming the stigma associated with online learning; quality is accreditation; quality is an efficient and effective course development process; and quality is effective pedagogy. After paralleling the demise of some online education programs that were created as stand-alone units to the dotcom bust in 2000, Shelton and Saltsman (2004) postulated that the mark of quality for an online education program is not its growth rate but the combination of retention rate, academic outcomes, and success in online student and faculty support. However, after their study of program administrators, Husman and Miller (2001) argued that "administrators perceive quality to be based almost exclusively in the performance of faculty" (para 17).

**Themes and domains for measuring quality**. It was interesting to examine the various themes and domains that each study or organization considered basic for indicating quality in online education programs. Each group of themes is presented in

chronological order of their appearance in the literature. The studies examined are not exhaustive but best represent the different efforts to assess quality in online education.

***WCET's best practices for electronically offered degree and certificate programs***. One of the first attempts to identify and assess quality in online education was developed in 1995 by the Western Cooperative for Educational Telecommunications (WCET). *Principles of Good Practice for Electronically Offered Academic Degree and Certificate Programs* identified three primary categories for quality evaluation: curriculum and instruction, institutional context and commitment, and evaluation and assessment. Institutional context and commitment was further divided into five areas: role and mission, faculty support, resources for learning, students and student services, and commitment to support (Western Cooperative for Educational Telecommunications, 1997). A second report was developed in 2001 along with the regional accrediting bodies titled *Best Practices for Electronically Offered Degree and Certificate Programs,* which expanded the prior report into five categories instead of three: institutional context and commitment, curriculum and instruction, faculty support, student support, and evaluation and assessment (Western Cooperative for Educational Telecommunications, 2001). In the prior report, faculty support and student support were considered subsets of the institutional context and commitment category. The 2001 report is one of the most frequently cited when quality indicators for online education programs are being addressed.

The WCET standards developed in 2001 were not created to be an evaluation instrument, but rather to demonstrate how basic principles of institutional quality that were already in place with the accreditors would apply to distance learning programs

(Western Cooperative for Educational Telecommunications, 2001). These key elements of quality distance learning are still highly respected and have been used since then by the regional accreditors to review programs for institutional accreditation.

***IHEP's 24 benchmarks for success in Internet-based distance education.*** Commissioned by the National Educators Association and Blackboard, Inc., the Institute for Higher Education Policy (IHEP) in their report, *Quality on the Line: Benchmarks for Success in Internet-Based Distance Education* (2000), identified 24 individual quality indicators chosen to be absolutely essential by various respected online education leaders of higher education institutions out of an original 45 indicators provided by a literature search as shown in Table 1. While the study called each indicator a benchmark, they are, in reality, attributes of an online education program to indicate overall quality; they are not measureable against other institutional results. The study sought to prove that "distance learning can be quality learning" (Institute for Higher Education Policy, 2000, p. vii).

Considered foundational to quality distance learning, the Institute for Higher Education Policy's (IHEP) research (Chaney et al., 2009) categorized the 24 quality indicators into seven themes: institutional support (1), course development (2), teaching and learning (3), course structure (4), student support (5), faculty support (6), and evaluation and assessment (7). Presented in Table 2, each of the themes is characterized by various attributes that should be inherent to a quality distance learning program. For example, under the institutional support (1) theme, the first indicator prescribed that there

Table 1

*The Original 45 Quality Indicators Used in the IHEP Study (2000)*

| Quality Indicators by Category |
|---|
| **Institutional Support** |
| 1. Faculty are provided professional incentives for innovative practices to encourage development of distance learning courses. |
| 2. There are institutional rewards for the effective teaching of distance learning courses. |
| 3. A documented technology plan is in place to ensure quality standards. |
| 4. Electronic security measures are in place to ensure the integrity and validity of information. |
| 5. Support for building and maintaining the distance education infrastructure is addressed by a centralized system. |
| **Course Development** |
| 6. Distance learning course development must be approved through a broad peer review process. |
| 7. Guidelines exist regarding minimum standards for course development, design, and delivery. |
| 8. Course design is managed by teams comprised of faculty, content experts, instructional designers, technical experts, and evaluation personnel. |
| 9. During course development, the various learning styles of students are considered. |
| 10. Assessment instruments are used to ascertain the specific learning styles of students, which then determine the type of course delivery. |
| 11. Courses are designed with a consistent structure, easily discernable to students of varying learning styles. |
| 12. The technology being used to deliver course content is based on learning outcomes. |
| 13. Instructional materials are reviewed periodically to ensure they meet program standards. |
| **Teaching and Learning** |
| 14. Student interaction with faculty is facilitated through a variety of ways. |
| 15. Student interaction with other students is facilitated through a variety of ways. |
| 16. Feedback to student assignments and questions is provided in a timely manner. |
| 17. Feedback to students is provided in a manner that is constructive and non-threatening. |
| 18. Courses are separated into self-contained segments (modules) that can be used to assess student mastery before moving forward in the course or program. |
| 19. The modules/segments are of varying lengths determined by the complexity of learning outcomes. |
| 20. Each module/segment requires students to engage themselves in analysis, synthesis, and evaluation as part of their course assignments. |

Table 1 continues

Quality Indicators by Category

Teaching and Learning (cont'd)

21. Class voice-mail and/or e-mail systems are provided to encourage students to work with each other and their instructor(s).
22. Courses are designed to require students to work in groups utilizing problem-solving activities in order to develop topic understanding.
23. Course materials promote collaboration among students.

Course Structure

24. Students are provided with supplemental course information that outlines course objectives, concepts, and ideas.
25. Specific expectations are set for students with respect to a minimum amount of time per week for study and homework assignments.
26. Faculty are required to grade and return all assignments within a certain time period.
27. Sufficient library resources are made available to the students.
28. Students are instructed in the proper methods of effective research, including assessment of resource validity.
29. Before starting the program, students are advised about the program to determine if they have the self-motivation and commitment to learn at a distance.
30. Learning outcomes for each course are summarized in a clearly written, straightforward statement.

Student Support

31. Students can obtain assistance to help them use electronically accessed data successfully.
32. Students are provided with hands-on training and information to aid them in securing material through electronic databases, interlibrary loans, government archives, news services, etc.
33. Written information is supplied to the student about the program.
34. Easily accessible technical assistance is available to all students throughout the duration of the course/program.
35. A structured system is in place to address student complaints.

Faculty Support

36. Technical assistance in course development is available to faculty and they are encouraged to use it.
37. Faculty members are assisted in the transition from classroom teaching to distance instruction and are assessed in the process.
38. There are peer mentoring resources available to faculty members teaching distance courses.
39. Distance instructor training continues throughout the progression of the online class.
40. Faculty members are provided with written resources to deal with issues arising from student use of electronically-accessed data.

Table 1 continues

| Quality Indicators by Category |
|---|
| Evaluation and Assessment |
| 41. The program's educational effectiveness is measured using several methods. |
| 42. An evaluation process is used to improve the teaching/learning process. |
| 43. Specific standards are in place to compare and improve learning outcomes. |
| 44. Data on enrollment, costs, and successful/ innovative uses of technology are used to evaluate program effectiveness. |
| 45. Intended learning outcomes are regularly reviewed to ensure clarity, utility, and appropriateness. |

Table 2

*The 24 Quality Indicators Determined by IHEP Study (2000)*

| Approved Quality Indicators by Category |
|---|
| Institutional Support |
| 1. A documented technology plan that includes electronic security measures (i.e., password protection, encryption, back-up systems) is in place and operational to ensure both quality standards and the integrity and validity of information. |
| 2. The reliability of the technology delivery system is as failsafe as possible. |
| 3. A centralized system provides support for building and maintaining the distance education infrastructure. |
| Course Development |
| 4. Guidelines regarding minimum standards are used for course development, design, and delivery, while learning outcomes—not the availability of existing technology—determine the technology being used to deliver course content. |
| 5. Instructional materials are reviewed periodically to ensure they meet program standards. |
| 6. Courses are designed to require students to engage themselves in analysis, synthesis, and evaluation as part of their course and program requirements. |
| Teaching and Learning |
| 7. Student interaction with faculty and other students is an essential characteristic and is facilitated through a variety of ways, including voice-mail and/or e-mail. |
| 8. Feedback to student assignments and questions is constructive and provided in a timely manner. |
| 9. Students are instructed in the proper methods of effective research, including assessment of the validity of resources. |

Table 2 continues

Approved Quality Indicators by Category

Course Structure

10. Before starting an online program, students are advised about the program to determine (1) if they possess the self-motivation and commitment to learn at a distance and (2) if they have access to the minimal technology required by the course design.
11. Students are provided with supplemental course information that outlines course objectives, concepts, and ideas, and learning outcomes for each course are summarized in a clearly written, straightforward statement.
12. Students have access to sufficient library resources that may include a "virtual library" accessible through the World Wide Web.
13. Faculty and students agree upon expectations regarding times for student assignment completion and faculty response.

Student Support

14. Students receive information about programs, including admission requirements, tuition and fees, books and supplies, technical and proctoring requirements, and student support services.
15. Students are provided with hands-on training and information to aid them in securing material through electronic databases, interlibrary loans, government archives, news services, and other sources.
16. Throughout the duration of the course/program, students have access to technical assistance, including detailed instructions regarding the electronic media used, practice sessions prior to the beginning of the course, and convenient access to technical support staff.
17. Questions directed to student service personnel are answered accurately and quickly, with a structured system in place to address student complaint.

Faculty Support

18. Technical assistance in course development is available to faculty, who are encouraged to use it.
19. Faculty members are assisted in the transition from classroom teaching to online instruction and are assessed during the process.
20. Instructor training and assistance, including peer mentoring, continues through the progression of the online course.
21. Faculty members are provided with written resources to deal with issues arising from student use of electronically-accessed data.

Evaluation and Assessment

22. The program's educational effectiveness and teaching/learning process is assessed through an evaluation process that uses several methods and applies specific standards.
23. Data on enrollment, costs, and successful/innovative uses of technology are used to evaluate program effectiveness.
24. Intended learning outcomes are reviewed regularly to ensure clarity, utility, and appropriateness.

should be “a documented technology plan [in place] that includes electronic security measures to ensure both quality standards and the integrity and validity of information” (Institute for Higher Education Policy, 2000, p. 2). The Institutional Support (1) theme included the reliability of the technology infrastructure and assurance that support is maintained for continued growth.

The Course Development (2) theme determined if guidelines are in place for the development of quality online course materials. The course materials for online courses should be engaging, encourage critical thinking, and periodically revised. The Teaching/Learning (3) theme stipulated that interaction must occur during the teaching and learning process (student-instructor, student-student), and timely and constructive feedback is provided.

The Course Structure (4) theme addressed the quality of information regarding the online courses provided to a student before enrolling in an online class such as a student readiness indicator and course objectives. This also included a provision of library resources for online students, which was also a requirement by all regional accrediting bodies. The Student Support (5) theme considered the kind of information students receive about the program, admission requirements, proctoring requirements, and if all student services were available to online students. Online programs should have a repository of materials that online students will need for success in the program such as a list of frequently asked questions and information on where to get help if needed.

The Faculty Support (6) theme included the resources provided to faculty for developing and teaching an online course. Faculty also need polices and a support structure provided as well as training and mentoring. The final theme, Evaluation and

Assessment (7), was concerned with if, or how, online education was being evaluated and what policies and procedures were in place for supporting an evaluation process. According to IHEP (Institute for Higher Education Policy, 2000), "data on enrollment, costs, and successful/innovative uses of technology are used to evaluate program effectiveness" (p. 3). Learning outcomes should be assessed and evaluated for clarity and appropriateness to support continued improvement.

***Bates' ACTIONS model of quality***. To evaluate instructional technologies in education, Tony Bates (2000) coined the acronym *ACTIONS*: **A**ccess and flexibility, **C**osts, **T**eaching and Learning, **I**nteractivity and user friendliness, **O**rganizational issues, **N**ovelty, and **S**peed. The ACTIONS model was designed to help with the selection of instructional technologies and not to evaluate distance learning programs; however, each of these themes can be applied to online education. Bates' ACTIONS model was one of the first to address "cost" factors, which affect both the institution and the student.

***Frydenberg's quality standards in e-learning***. Frydenberg (2002) summarized published quality standards for online education in the United States and found the following most common themes in the literature: institutional and executive commitment; technological infrastructure; student services; instructional design and course development; instruction and instructors; program delivery; financial health; legal and regulatory compliance; and program evaluation. She observed the institutional and executive commitment theme to be one of the most common in the literature and evaluation of a program to be the least written about, "since few fully developed programs have arrived at a stage where summative evaluation is possible" (p. 13).

***Sloan consortium's five pillars of quality***. The Sloan Consortium, an organization dedicated to improving the quality of online education, identified the Five Pillars of Quality Online Education (Bourne & Moore, 2002) they considered to be the building blocks for quality online learning: Learning Effectiveness; Student Satisfaction; Faculty Satisfaction; Scale; and Access (Figure 1).

*Figure 1*. Five pillars of quality online education (Sloan-C).

The Learning Effectiveness Pillar addressed the commitment to providing students with high quality education that is at least equivalent to that of traditional students and includes interactivity, pedagogy, instructional design, and learning outcomes (Sloan Consortium, 2009b). According to Lorenzo and Moore (2002), the Learning Effectiveness Pillar evaluates learning activities because they believed success is related to student interactivity with the instructor and creating a learning environment of inquiry. The Student Satisfaction Pillar focused on the experience of the student by providing

necessary support services such as advising and counseling and opportunities for peer interaction (Sloan Consortium, 2009b). It also examined if the student was satisfied with what and how they learned in either the class or overall program. In fact, "a number of studies show that online environments that effectively facilitate high levels of interaction and collaboration among learners typically result in successful online programs" (Lorenzo & Moore, 2002, p. 5).

The Faculty Satisfaction Pillar addressed the support and resources needed for faculty to have a positive experience in the online teaching environment. According to the Sloan Consortium (Sloan Consortium, 2009b), "Faculty satisfaction is enhanced when the institution supports faculty members with a robust and well-maintained technical infrastructure, training in online instructional skills, and ongoing technical and administrative assistance" (para 5).

The Scale Pillar was originally entitled Cost Effectiveness and was later changed to "Scale"; a focus on the cost effective programs is considered to be central to institutions who desire to "offer their best educational value to learners and to achieve capacity enrollment" (Sloan Consortium, 2009a). They believed an institution should monitor costs to keep tuition as low as possible while providing a quality educational experience for both students and faculty. Strategies for quality improvement were also addressed in the Scale Pillar.

The Access Pillar assured that students have full access to the learning materials and services they need throughout their online degree program including support for disabilities and online readiness assessment. This pillar examined barriers that may be in the way of students having access to all resources they need to achieve success.

***Lee and Dziuban's quality assurance strategy***. Lee and Dziuban (2002) believed there were five primary components for evaluating quality in online education: administrative leadership and support, ongoing program concerns, web course development, student concerns, and faculty support. Structured around the University of Central Florida's online programs, their Quality Assurance Strategy (QAS) maintained the importance of administrative support and leadership for resources, training, and evaluation. They recommended that online programs should be extensively planned through discussion, evaluation, and analysis, which is crucial to the overall success of the program.

***Lockhart and Lacy's assessment model***. Lockhart and Lacy (2002) worked with faculty and administrators at several national conference meetings to develop a model that offered seven components needed to evaluate online education: institutional readiness/administration (budgets, priority and management), faculty services (support, outcome measurement and training effectiveness); instructional design/course usability (technology must be user friend and accessible); student readiness (assessment for student readiness and preparation); student services (effectiveness of provided services); learning outcomes (measurement of learning outcomes); and retention (comparing rates to face-face delivery and enrollment monitoring). Focusing on data collection and analysis, they suggested surveying areas of faculty support and training, student support, and results of online learning outcomes, which have proven to be valuable to evaluation. They also encouraged the examination of student grades and retention rates. They challenged us to understand that "the critical element is that institutions should plan,

evaluate, and then revise programs based upon assessment results rather than just being another institution to deliver classes at a distance" (p. 104).

***CHEA's accreditation and quality assurance study***. The Council for Higher Education Accreditation (CHEA) (2002) examined the 17 institutional accreditors that were recognized by the United States Department of Education (USDE) or the Council for Higher Education Accreditation (CHEA) because each reviewed distance learning programs within their constituency. The 17 accreditors involved included the eight regional accrediting bodies—Middle States Association of Colleges and Schools (MSA), New England Association of Colleges and Schools (NEASC-CIHE), North Central Association of Colleges and Schools-The Higher Learning Commission (NCA), Northwest Association of Colleges and Schools (NWA), Southern Association of Colleges and Schools (SACS), and Western Association of Colleges and Schools (WASC). There were an additional nine national accrediting organizations—Accrediting Association of Bible College (AABC), Accrediting Bureau of Health Education Schools (ABHES), Accrediting Council for Continuing Education and Training (ACCET), Accrediting Commission of Career Schools and Colleges of Technology (ACCSCT), Accrediting Council for Independent Colleges and Schools (ACICS), Association of Theological Schools in the United States and Canada (ATS), Council on Occupational Education (COE), Accrediting Commission of the Distance Education and Training Council (DTEC), and the Transnational Association of Christian Colleges and Schools Accrediting Commission (TRACS). Their work resulted in what they believed to be the seven most significant areas for assuring the quality of distance learning programs. The seven foundational areas are:

1. Institutional Mission: Does offering distance learning make sense in this institution?

2. Institutional Organizational Structure: Is the institution suitably structured to offer quality distance learning?

3. Institutional Resources: Does the institution sustain adequate financing to offer quality distance learning?

4. Curriculum and Instruction: Does the institution have appropriate curricula and design of instruction to offer quality distance learning?

5. Faculty Support: Are faculty competently engaged in offering distance learning and do they have adequate resources, facilities, and equipment?

6. Student Support: Do students have needed counseling, advising, equipment, facilities and instructional materials to pursue distance learning?

7. Student Learning Outcomes: Does the institution routinely evaluate the quality of distance learning based on evidence of student achievement? (p. 7)

The CHEA report (2002) described three challenges that must be addressed for assuring the quality of online education programs: the alternative design of instruction, the abundance of alternative providers of higher education, and an expanded focus on training.

***Osika's concentric model***. Osika (2004) developed a concentric model for supporting online education programs using seven themes: faculty support, student support, content support, course management system support, technology support, program support, and community support. She validated this model with a panel of experts that consisted of administrators and those with various roles in online education programs including faculty and staff members.

***Moore and Kearsley's assessment recommendations***. Moore and Kearsley (2005) postulated that while everyone within the institution has a role to play in quality

education, they believed senior administrators should be responsible for the measurement and quality improvements. While they did not offer a prescriptive plan for evaluation, they suggested assessment of the following areas: the number and quality of applications and enrollments; student achievement; student satisfaction; faculty satisfaction; program or institutional reputation; and the quality of course materials.

***Khan's eight dimensions of e-learning framework***. After his first book, *Web-Based Instruction* written in 1997, Badrul Khan examined the critical dimensions necessary for quality learning online and found there were eight primary categories: institutional, management, technological, pedagogical, ethical, interface design, resource support and evaluation (Khan, 2001). Each dimension, presented in Table 3, is integral to a systems approach for evaluating quality. According to Khan, this comprehensive model may also be used for strategic planning and program improvement and has been widely adopted. Each dimension or category of quality indicators contained sub-dimensions (as shown in Table 4) that also may be used as quality indicators for program evaluation.

***Haroff and Valentine's six–factor solution***. Haroff and Valentine (2006) explored web-based adult education programs and found there were six dimensions in program quality: quality of instruction, quality of administrative recognition, quality of advisement, quality of technical support, quality of advance information, and quality of course evaluation. Beginning with the IHEP (2000) 24 quality indicators as a foundation, they surveyed administrators and educators involved in teaching online using forty-one quality variables. The six dimensions identified resulted from 65% of the variance in responses.

Table 3

*Khan's Eight Dimensions of E-Learning Framework (2001)*

| Dimensions of E-Learning | Descriptions |
|---|---|
| Institutional | The institutional dimension is concerned with issues of *administrative affairs*, *academic affairs,* and *student services* related to e-learning. |
| Management | The management of e-learning refers to the *maintenance of learning environment* and *distribution of information.* |
| Technological | The technological dimension of the E-Learning Framework examines issues of technology infrastructure in e-learning environments. This includes *infrastructure planning, hardware,* and *software.* |
| Pedagogical | The pedagogical dimension of E-learning refers to teaching and learning. This dimension addresses issues concerning *content analysis, audience analysis, goal analysis, media analysis, design approach, organization, and* <u>*methods and strategies*</u> of e-learning environments. |
| Ethical | The ethical considerations of e-learning relate to *social and political influence, cultural diversity, bias, geographical diversity, learner diversity, information accessibility, etiquette,* and *the legal issues.* |
| Interface Design | The interface design refers to the overall look and feel of e-learning programs. Interface design dimension encompasses *page and site design, content design, navigation,* and *usability testing.* |
| Resource Support | The resource support dimension of the E-Learning Framework examines the *online support* and *resources* required to foster meaningful learning environments. |
| Evaluation | The evaluation for e-learning includes both *assessment of learners and evaluation of the instruction* and *learning environment.* |

Table 4

*E-Learning Framework Sub-Dimensions (Khan, 2001)*

| Sub-Dimensions | |
|---|---|
| INSTITUTIONAL<br>• Administrative Affairs<br>• Academic affairs<br>• Student services<br><br>MANAGEMENT<br>• E-Learning Content Development<br>• E-Learning Maintenance<br><br>TECHNOLOGICAL<br>• Infrastructure planning<br>• Hardware<br>• Software<br><br>PEDAGOGICAL<br>• Content Analysis<br>• Audience Analysis<br>• Goal Analysis<br>• Medium Analysis<br>• Design approach<br>• Organization<br>• Methods and Strategies | ETHICAL<br>• Social and Political Influence<br>• Cultural Diversity<br>• Bias<br>• Geographical diversity<br>• Learner diversity<br>• Digital Divide<br>• Etiquette<br>• Legal issues<br><br>INTERFACE DESIGN<br>• Page and site design<br>• Content design<br>• Navigation<br>• Accessibility<br>• Usability testing<br><br>RESOURCE SUPPORT<br>• Online support<br>• Resources<br><br>EVALUATION<br>• Assessment of learner<br>• Evaluation of the instruction/learning environment |

***Chaney, Eddy, Droman, Glessner, Green and Lara-Alecio's quality indicators***. In a recent review of the literature, Chaney et al. (2009) identified the following as common themes of quality indicators: teaching and learning effectiveness; student support; technology; course development/instructional design; faculty support; evaluation and assessment; and organizational/institutional-impact (Table 5 provides the individual

Table 5

*Common Quality Indicators of Distance Education Identified in the Literature (Chaney et al., 2009)*

| Theme | Indicator |
|---|---|
| Teaching and Learning Effectiveness | student-teacher interaction<br>prompt feedback<br>respect diverse ways of learning |
| Student Support | student support services<br>clear analysis of audience |
| Technology | technology plan to ensure quality is documented<br>appropriate tools and media<br>reliability of technology |
| Course Development/<br>Instructional Design | course structure guidelines<br>active learning techniques<br>implementation of guidelines for course development/review of instructional materials |
| Faculty Support | faculty support services |
| Evaluation and Assessment | program evaluation and assessment |
| Organizational/Institutional-Impact | institutional support and institutional resources<br>strong rationale for distance education/correlates to institutional mission |

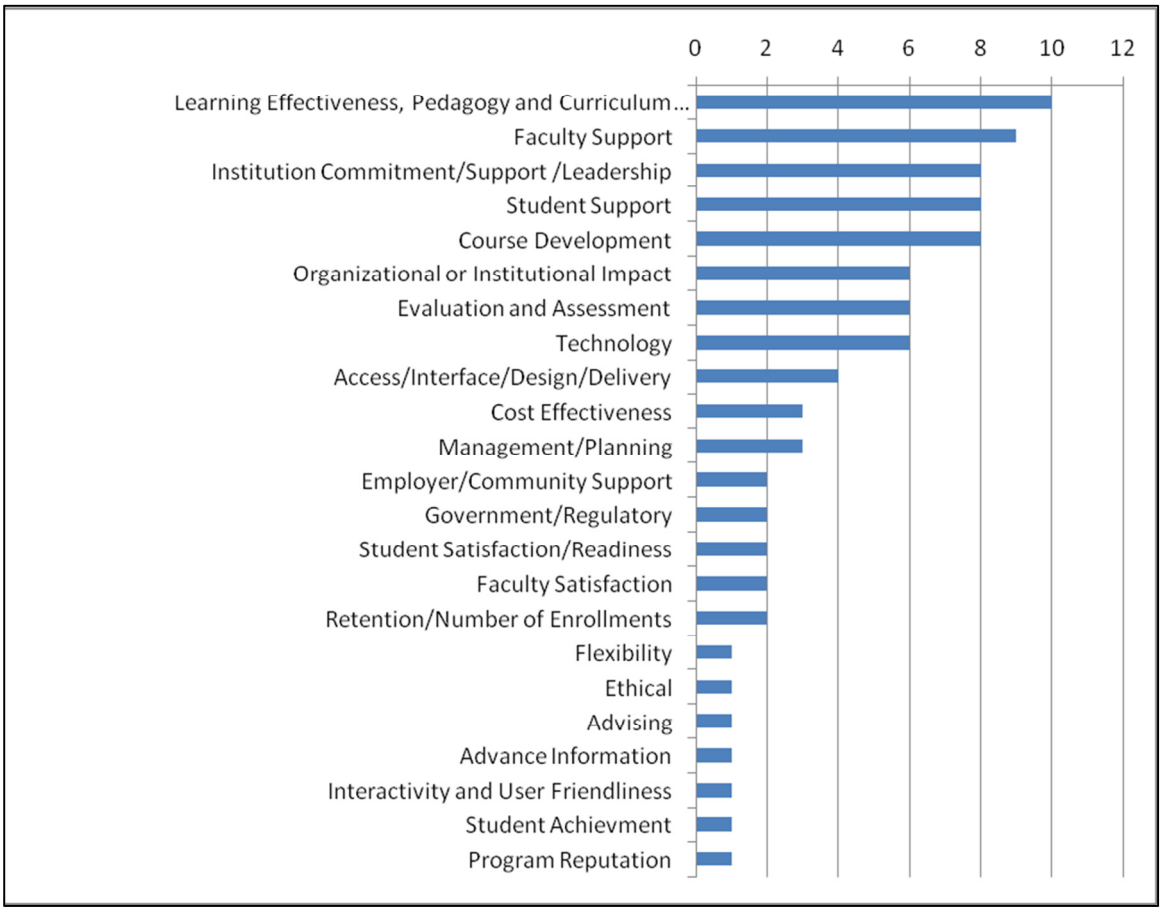
quality indicators listed for each theme). They recommended that "the next step for professional in the field of distance education is to integrate these quality assurance factors into the design, implementation, and evaluation of current and future distance education efforts" (p. 60).

**Quality theme comparison**. The 14 different articles and studies presented in this review of the literature of quality evaluation of online education programs have many commonalities among their findings. The Teaching and Learning theme was by far the most used when determining standards for online education programs. Figure 2 presents

the aggregation of themes. The literature has focused on the quality of teaching and pedagogy far more than the overall quality of programs. Early in the literature, it was the overall design of the course that most authors wrote about since courses moved online before complete programs. Faculty support was the second most identified theme in quality evaluation. For success in teaching online, faculty require support, training, motivation, compensation, and policy. Institutional Commitment, Support and Leadership along with Student Support and Course Development were the third most cited themes in the analyzed studies. It is interesting that student support was not cited as much as learning effectiveness. Students require the same support services that traditional students need; however, it is often more challenging to find ways to deliver those services and support in an online environment.

Technology, Organizational/Institutional Impact, and Evaluation were identified in only 6 of the 14 studies reviewed. Technology is foundational to the infrastructure of online education and should be considered a critical component to quality and success. Cost Effectiveness and Management and Planning were only identified three times in the studies and Faculty Satisfaction, Student Satisfaction and Student Retention only listed twice out of the 14 examined.

Specific indicators for quality online programs vary from institution to institution; however, this study sought to find the most common themes and domains identified today by program administrators that will assist them with evaluating and improving the overall quality of their online education programs.




Note: Frequency of the number of times found in the literature review for this study. Based on studies from Bates, 2000; Chaney et al. 2009; CHEA, 2002; Frydenberg, 2002; Haroff & Valentine, 2006; IHEP 2000; Khan, 2001; Lee & Dziuban, 2002; Lockhart & Lacy, 2002; Mariasingham, 2005; Moore & Kearsley, 2005; Osika, 2004; Bourne & Moore (Sloan Consortium), 2002; WCET, 2001.

*Figure 2*. Quality themes of online education from the literature review.

## Quality in Higher Education

In the early years of higher education, quality education was defined as a small group of elite students living together and learning under the guidance of a resident scholar. Later, it was believed to primarily exist in those institutions that were expensive and highly exclusive (Daniel, Kanwar, & Uvalic-Trumbic, 2009). However, that is no longer the case; today, public scrutiny for higher education is greater than ever before (Wergin, 2005) and the number of stakeholders and constituencies—all who have a

vested interest in quality and accountability—have increased. Because of this interest in quality, many institutions are finding that their standard processes for quality assurance are now inadequate and often, not a continuous process for improvement (Dill, 2000).

In the past, quality in higher education has often been related to rankings in the *U.S. News and World Report*. The data collected for the *U.S. News and World Report* rankings, for example, the average score of the SAT or ACT test for entering students, is primarily self-reported by the institution so that alone should cause constituents to look carefully at the claims of quality. The rankings do include data on institutional selectivity of students, which is believed to increase quality. However, Kuh and Pascarella (2004) examined several studies on institutional selectivity and found that in reality, it had little impact on the overall educational experience. They suggested that "if students, parents, and taxpayers want information about schools that promote the personal and intellectual growth of their undergraduates, national magazine rankings based essentially on selectivity won't be of much help" (p. 57).

Results from the National Survey of Student Engagement (NSSE) have also been used as quality indicators for higher education. The NSSE assesses students' perception of their engagement with basic good practices of undergraduate education such as student-faculty contact, cooperation among students, active learning/time on task, prompt feedback, high expectations, quality of teaching, influential interactions with other students, and a supportive campus environment (NSSE, 2008). The NSSE is excellent for measuring what it is designed to measure: student engagement. However, it cannot address the overall level of quality for an institution. Interestingly, Pike (2004) compared the NSSE scores to *U.S. News and World Report* rankings for 14 public research

universities and found that their NSSE scores were not generally related to the rankings of academic excellence as touted in the popular college edition of the magazine.

Quality assurance and accountability for higher education institutions in the United States have primarily been handled by the regional accreditors and discipline specific accreditation organizations such as the Association to Advance Collegiate Schools of Business (AACSB) for business programs, the National Council for Accreditation of Teacher Education (NCATE) for education programs and teacher certifications, and various others. According to the Council of Higher Education Association (2002), "accreditation is a process for external peer review of the quality of higher education institutions and programs" (p. 1). The regional accreditors emphasize the review process with an institution's self-study report, which demonstrates the established standards, such as faculty credentials, financial performance, student satisfaction, and the achievement of learner outcomes, have been met. Next, an on-site visiting team comprised of members from peer institutions evaluates specific areas of the institution in person; afterward, follow-up reporting and monitoring may be required. To be accredited, each institution is accountable for performance data over a period of several years with even more longitudinal data being encouraged and just recently, evaluators are requiring more data. During this process, the use of resources must be explained, as well as their service to both the student body and their community (Shapiro & Nunez, 2001).

With the establishment of the Spellings Commission in 2005, the federal government became more heavily involved in institutional accountability. Institutions are being asked to transparently provide more evidence of student achievement and

institutional performance, to establish methods for comparing and benchmarking to other institutions, and to establish threshold levels for learning standards (Eaton, 2007). As if administrators needed more motivation, Rice and Taylor (2003) reminded us that "shrinking budgets, achievement-based funding, and demands for assessment of student learning" (p. 2) alone should be enough to encourage the implementation of quality-based management strategies for continuous improvement. With that, a change in learner expectations has occurred. In fact, Pond (2002) noted that there could also soon be a shift where the learner believes a quality education is simply one in which he or she gained new knowledge, which could make it even more difficult to assess.

Because of the changing landscape in higher education and accountability, it is now an industry that is being challenged to reconceptualize the tools used to indicate quality and excellence. One possible method is the use of institutional or program performance dashboards. According to Harel and Sitko (2003) "dashboards are helping to professionalize the higher education workforce by enabling managers to make decisions based on real, current, accurate, and available data" (p. 9). Just like the dashboard of a car provides vital information to the car's performance, a digital dashboard can provide a snapshot of university performance by utilizing Internet technology and database feeds to create performance data at any given moment of the data gathering process. Several business and industry quality improvement processes can operate as a dashboard by providing measurement in key areas of the institution. The dashboard becomes integral when implementing a quality management approach like Total Quality Management and the Balanced Scorecard.

**Quality management approaches from business and industry**. The literature supports the application of quality management approaches developed by business and industry to higher education (Alstete, 2007; Doerfel & Ruben, 2002; Hogg & Hogg, 1995; Nixon, Helms, & Williams, 2001; Rice & Taylor, 2003; Satterlee, 1996) to address quality and strategic planning; although, some have suggested adaption of the processes would be necessary for better accuracy (Cohen, Fetters, & Fleischmann, 2005). Total Quality Management (TQM) or Continuous Quality Improvement (CQI), the Malcolm Baldrige National Quality Award (MBNQA), and the Balanced Scorecard (BSC) are all processes borrowed from the business sector that have proven to be successful when applied in higher education.

***Total quality management for higher education***. The concept or philosophy of Total Quality Management (TQM) is primarily attributed to Edwards Deming and Joseph Juran, who each were involved in teaching the Japanese how to improve their manufacturing processes by concentrating on quality control in the 1950s. This approach to quality control and assurance became very popular for business and industry in the 1980s. Today, TQM has evolved into a myriad of various philosophies and iterations that may be used to achieve continuous quality improvement throughout industry and education, which revolve around meeting customers' desires and measuring various areas that result in quality assurance.

To understand quality, you must identify the organization's product and customers. In higher education, we have numerous products (learning outcomes, research, community service, job market) and multiple customers (trustees, students, faculty and colleagues/community/state), which make it sometimes more difficult to gain

buy-in for TQM's use in education (Seagren, Phelps, & Watwood, 1995). If students are truly the customers of higher education, (an idea which many faculty resist) that means addressing numerous areas throughout the institution such as classrooms and dorms, meals, career counseling, and of course, the learning environment and faculty qualifications (Finch, 1994).

While some of the TQM approaches for higher education have been most successful in nonacademic divisions (Hogg & Hogg, 1995), many believe TQM can be applied throughout all of higher education (Codjoe & Helms, 2005; Fritz, 1993; Goodwin, 1995; Matuska, 1996; Montano & Utter, 1999; Nixon et al., 2001; Satterlee, 1996; Thomas, 1997; Xue, 1998; Yudof & Busch-Vishniac, 1996). In fact, Sallis (1996) believed that "TQM is a philosophy of continuous improvement, which can provide any educational institution with a set of practical tools for meeting and exceeding present and future customers' needs, wanted and expectations" (p. 27). For continued success, Kettunen and Kantola (2007) asserted that "achieving excellence in quality requires a strong future orientation and a willingness to make long-term commitments to students, employees, and other stakeholders" (p. 69).

Seagren et al. (1995) observed the following traits in quality organizations that should also be found in institutions utilizing the Total Quality Management approach:

> First, they are committed to continual improvement. Second, everyone in the organization, from lowest employee to top management, is dedicated to producing quality products or services. Third, everyone is service-oriented and understands who their customers are. Fourth, the management and workers collectively make decisions based on well-researched data. Fifth, everyone understands that there are variations in every process. And sixth, quality is seen as a journey, not a destination, because as improvements are made, opportunities develop for new quality initiatives. (p. 33).

Yudof and Busch-Vishniac (1996) discovered several advantages of implementing TQM in higher education: it provided an avenue for continuous institutional improvement, it provided an opportunity for flexibility and change, it shifted decision-making to others than those at the top, and probably most importantly, it placed performance measures on internal processes and not merely inputs. There are many examples of these advantages for its use in higher education, with several described in the following paragraph.

In response to declining enrollment, decreased freshman retention, and low levels of student satisfaction with services, Lamar University implemented TQM, which revealed three areas in need of improvement: staff knowledge needed to be increased, prospective students needed to apply much earlier, and staff workloads must shift in periods of business (Montano & Utter, 1999). The president of Babson College employed TQM to successfully address a need for curriculum reform in graduate business education to meet industry demands (Cohen, 2003; Cohen et al., 2005) in spite of initial faculty resistance. Codjoe and Helms (2005) found that TQM can be effectively used to measure student retention, which is, of course, is related to customer service. One of the most interesting applications is the use of TQM by Nixon et al. (2001) to examine the possible need of a post-tenure review process in higher education through the lens of TQM. They found that by having tenured faculty, possible gaps in quality assurance process may exist within an institution. The University of Baltimore implemented continuous improvement principles to enhance their online business degree, which was the first online degree to be accredited by AACSB (Aggarwal, Adlakha, & Mersha, 2006).

TQM has been criticized as being vague and not quantifiable. In fact, some critics of TQM believe there is too much focus on what is broken in the organization, rather than

using the idea generation process for creativity (Grossman, 1994). Furthermore, a study by Ernst and Young in 1992 suggested that millions of dollars have been thrown away on TQM as the data from some companies has shown that production may not have approved (Grossman, 1994).

***A balanced scorecard for higher education***. Robert Kaplan and David Norton (1996), the creators of the Balanced Scorecard approach to quality management, firmly believed that "if you can't measure it, you can't manage it" (p. 21) and if you can't manage it, you can't improve it. In 1992, Kaplan and Norton were interested in finding a set of measures that would holistically evaluate business performance. Building upon the principles of Total Quality Management, they developed the Balanced Scorecard concept to complement existing financial measures for performance with nonfinancial assessments that may include external measures of shareholders and customers as well as internal measures of business processes. According to Kaplan and Norton (1996), a balanced scorecard may be used to "clarify and translate vision and strategy, communicate and link strategic objectives and measures, plan, set targets and align strategic initiatives, and enhance strategic feedback and learning" (p. 10).

One of the authors' main premise was that the "balanced scorecard must reflect the structure of the organization for which the strategy has been formulated" (Kaplan & Norton, 1996, p. 167). For application in higher education, that means the institution's mission must be integral to the scorecard design to successfully meet the needs of its constituencies. Ballentine and Eckles (2009) pointed out "the strength of the Balanced Scorecard was that it placed before decision makers those presumably overlooked areas that are of concern to many faculty, staff, and students" (p. 34). They maintained that the

four areas of focus outlined by the BSC (financial, customer, internal business process and innovation and learning) still apply to higher education and are confident that "the Balanced Scorecard can demonstrate a clear linkage between an institution's mission, vision, and strategic objectives and help close the loop in the assessment process" (Ballentine & Eckles, 2009, p. 35). Doerful and Ruben (2002) agreed and found that the BSC approach allows an institution to "formulate a cascade of measures to translate the mission of knowledge creation, sharing, and usage for external stakeholders and for one another" (p. 22).

The balanced scorecard is often used in higher education to assist with strategic planning, decision-making, and the accomplishment of institutional goals (Scholey & Armitage, 2006; Shapiro & Nunez, 2001) as well as meeting accreditation requirements (Bailey, Chow, & Haddad, 1999; McDevitt, Giapponi, & Solomon, 2008). In fact, Bailey et al. (1999) worked with 38 deans of business schools in the United States to design a balanced scorecard to support AACSB accreditation requirements. As the focus on quality improvement in higher education increases, so does the use of the Balanced Scorecard. The literature heralds respected institutions such as Ohio State University, University of Wisconsin-Stout, University of Northern Colorado, Cornell, and many others that have all successfully utilized the BSC for strategic planning, change management, or quality improvement or quality monitoring. The Balanced Scorecard has also been noted for application in educational institutions for the Malcolm Baldrige National Quality Award (Karanthanos & Karanthanos, 2005).

Some criticism of the Balanced Scorecard is recorded in the literature such as faculty resistance and lack of campus culture support. According to Dror (2008), the following limitations exist: the scorecard focuses

> on learning as the only source of causality; a lack of basic guidelines for selecting performance measurements; no method for setting targets to measures; complex feedback from the financial perspective to the customer and the processes perspectives; and no consideration of time lag between cases and effects. (p. 592)

***Malcolm Baldrige National Quality Award***. The Malcolm Baldrige National Quality Award (MBQNA) for quality management and performance excellence in business and industry was established in 1987 by Public Law 100-107, the *Malcolm Baldrige Quality Improvement Act of 1987*. The award was named for the Secretary of Commerce who served from 1981-1987, and was developed by the National Institute of Standards and Technology. Supported by the Foundation for the Malcolm Baldrige National Quality, this award provided a framework of criteria for quality improvement, strategic planning, and evaluation by focusing on two goals: delivering ever improving value to customers and improving total organizational performance (Baldrige National Quality Program, 2009)

While the MBQNA was originally established to indicate performance excellence in business and government, a modified version of the criteria was developed for educational institutions, titled *The Baldrige Education Criteria for Performance Excellence*. This was shortly after Winn and Cameron's (1998) investigation of the successful application of the MBQNA to institutions in higher education. The criteria outlined seven key areas for measuring quality and performance: leadership, strategic planning, student and stakeholder focus, information and analysis, faculty and staff focus, educational and support process management, and school performance results. Within the

7 categories are 11 embedded core values and concepts: visionary leadership; learning-centered education; organizational and personal learning; valuing faculty, staff, and partners; agility; focus on the future; managing for innovation; management by fact; social responsibility; focus on results and creating value; and systems perspective (Baldrige National Quality Program, 2009).

Although many have struggled with how to implement and assess quality improvements in business and industry (Seagren et al., 1995), many higher education institutions have found that the *Baldrige Education Criteria for Performance Excellence* was a powerful tool for self-assessment, planning, improvement strategy, and evaluation for accreditation. Furst-Bowe and Bauer (2007) observed that colleges find the "Baldrige model useful because it provides a tested framework for institutions to begin the process of systematic assessment and improvement through change initiatives" (p. 14). The Baldrige model is a method for quality measurement that analyzes all processes, goals and objectives, successes and failures, and determines if improvements are needed in institutional processes. The evaluation of processes is important since the Baldrige National Quality Program (2009) criteria suggest that process improvement means not only happier students but usually an increase in financial performance.

Each year, an institution is given the award—to name a few, the University of Wisconsin-Stout (2001), University of Northern Colorado's Montfort College of Business (2004), and Richland College (2005). Richland College, a community college part of the Dallas County Community College District, was awarded the Baldrige award in 2005 for its excellence in building a campus culture of organizational improvement. To begin the journey, they translated the MBQNA model into eight generic steps (shown in

Table 6) for performance excellence (Eggleston, Gibbons, & Vera, 2007) and found that the Baldrige Criteria framework facilitated organizational change, which included a strategy for best practice benchmarking and a vehicle for sharing best practices with other institutions. The Richland College leadership team continues to utilize this approach for evaluating performance excellence.

Table 6

*Eight Generic Steps for Performance Excellence (Eggleston et al., 2007)*

| Key Steps for Establishing an Institutional Performance Excellence Model |
|---|
| 1. Identify and assemble a small (approximately ten members) cross-functional team to draft the strategic plan. |
| 2. Identify at least three, but no more than five, strategic planning priority goals. |
| 3. Identify indicators of performance objectives for each strategic planning priority goal. |
| 4. Identify at least one institutional measure for each key performance indicator. |
| 5. Establish targets for each measure (both long and short term). |
| 6. Create multi-level actions that deploy the plan. |
| 7. Track results monthly. |
| 8. Evaluate the plan at the conclusion of the academic year. |

The Baldrige Education Criteria for Performance Excellence has proven to be a valid measurement model for evaluating quality in higher education, by focusing on creating customer-driven organizations with highly involved employees that use institutional data to drive decision-making (Badri et al., 2006; Ruben, Russ, Smulowitz, & Connaughton, 2006). However, there are common barriers that may need to be overcome as identified by Ruben et al. (2006): competing priorities, resources,

commitment, organizational structure, leadership change, insufficient knowledge, lack of accountability, and mistrust. Strong leadership and organizational buy-in are needed to complete the Baldrige award criteria.

Some criticism of the Baldrige award is found in the literature. For example, there are those who believe there is too much focus on the actual results of the process and not the actual level of quality, and that it is difficult to prove the results are truly measurable (Smith, 2004). Others feel that it does not belong in the education sector because it threatens the focus being on the learning process, takes away teacher autonomy (Storey, 2002), and it is too costly for the benefits (Collier, 1992, July-August). In addition, the application of a business strategy to education causes concern for those who feel students should never be thought of as customers. In their report on the Baldrige application to K-12, Walpole and Noeth (2002) wrote:

> Because implementing a focus on quality requires data and data-driven decisions, critics fear that educators may focus solely on visible and measurable outcomes. These outcomes might include such things as achievement test scores, number of books read, percent of students completing assignments on schedule, absentee reduction, and number of college applications. Critics fear that too much emphasis on measurable performance factors may inhibit creativity and that factors such as a love of learning and the enhancement of curiosity—considered by many the most important outcomes of education—are in fact not measurable. (p. 9)

In spite of these criticisms, the Baldrige process for quality measurement is still one of the most favored in businesses throughout the world, and is also gaining popularity in its use in education.

**Summary**

The literature review for this study revealed an abundance of articles and dissertations written about online education and the search to define quality programs.

Businesses and industry have utilized quality assurance processes for many years to identify and measure quality improvement and improve strategic planning and decision-making. Those same quality evaluation processes are being used in higher education and can also apply to online education programs. This Delphi study proposed the development of a quality scorecard, like that in business and industry that may be used for evaluating quality online programs and assist with strategic planning and program improvements.

# Chapter III

# Methodology

Chapter III addresses the purpose statement, research questions, research design and methodology using the Delphi method, sampling frame, instrumentation and survey procedure, and analysis procedures. The Delphi method of research facilitates the collection of expert opinion and analysis of data to bring consensus on a given subject. This study used a group of experts in online education in higher education administration to identify standards of quality necessary to develop a quality scorecard for online education programs in higher education.

## Purpose

This study sought to determine if experts in the administration of online education of various types of higher education institutions believe the original 24 indicators of quality online education (IHEP, 2000) are still relevant in 2010, if additional indicators are needed to identify quality online education programs and what numerical values should be assigned. The final phase of the study resulted in the construction of a numeric scorecard for measuring quality in online programs from an administrator's perspective that could also support strategic planning and program improvement.

## Research Questions

The central purpose for this dissertation was the development of a scorecard to measure and quantify elements of quality within online education programs in higher education that may also support strategic planning and program improvements. The following questions guided the research:

1. Are the standards identified in the IHEP/NEA study in 2000 still relevant in 2010 for indicating quality in online education programs in higher education?
2. What additional standards should be included that address the current industry in 2010?
3. If additional standards are suggested, will they fall into the already identified themes or will new themes emerge?
4. What values will be assigned to the recommended standards that will ultimately yield a numeric scorecard for measuring quality online education programs from an online education administrator's perspective that could also support strategic planning and program improvements?
5. How will the numeric scorecard compare to other quality assessment models used in higher education, such as the Balanced Scorecard and the Malcolm Baldrige National Quality Award?

**Research Design and Methodology**

The Delphi Method, developed by the Rand Corporation in the early 1950s by Norman Dalkey and Olaf Helmer (Dalkey & Helmer, 1963), was used to gain consensus among experts in the administration of online education in higher education to identify quality indicators for a scorecard. According to Franklin and Hart (2007), the Delphi Method is considered a hybrid of both quantitative and qualitative research because both statistical and qualitative data are used.

Nominal Group Technique (NGT) was considered as a possible research methodology for this study. Developed by Delbecq and Van de Ven (1971) in 1968, Nominal Group Technique (NGT) "is a group process which incorporates the creative

features of brainstorming into a controlled framework for needs analysis, problem-solving, and decision-making" (Martinko & Gepson, 1983, p. 101). Delbecq and Van de Ven (1971) outlined the four steps of the NGT process: a process for silent written ideas to be generated; round-robin process for sharing occurs for recording each idea; discussion and clarification of each recorded idea takes place; and each idea is voted upon and numerically weighted. A structured decision-making process similar to the Delphi Method, NGT is considered to be an effective brainstorming process; however, it calls for the group members to be in the same location at the same time (face-to-face) with a facilitator, which was not feasible for this study as members of the expert panel were in various locations throughout the United States.

**The Delphi Method.** The Delphi Method was selected as the most appropriate research technique for this study; justification for its selection and appropriateness for methodological research is included in Chapter III. The use of the Delphi methodology for research has increased tremendously since its initial use as a forecasting tool in the 1960s by the Rand Corporation. Twining (1999) attributed the increase to the method's ability to use computer-mediated conferencing and asynchronous survey techniques. In fact, a ProQuest dissertation search yielded almost 3,000 dissertations in various disciplines such as business and healthcare that employed the Delphi method of research. Over 1,200 of those dissertations were in the education discipline (more than 300 in higher education and more than 60 in distance education).

While considered suspect by some, many researchers have employed the Delphi Method to gain consensus from experts on a given topic because "it replaces direct confrontation and debate by a carefully planned, anonymous, orderly program of

sequential individual interrogations usually conducted by questionnaires" (Brown, Cochran, & Dalkey, 1969, p. 1). In fact, according to Day and Bobeva (2005), "The Delphi is founded upon the use of techniques that aim to develop, from a group of informants, an agreed view or shared interpretation of an emerging topic area or subject for which there is contradiction or indeed controversy" (p. 103). Ultimately, the goal is an informed decision. The following Delphi method characteristics support its use for group decision-making:

- Participants generate ideas silently and individually, which produces a greater amount of ideas;
- Because participants write their responses on their own time schedule, they are more likely to critically think through the problem, therefore, increasing the value of their response;
- Participants are anonymous and isolated, which encourages freer responses without pressure from other group members' opinions and ideas;
- Participants suggestions are aggregated equally;
- Participants usually experience a sense of closure and accomplishment in the decision making process. (Delbecq et al., 1975)

For higher education, the Delphi Method has been used for various issues that are best addressed by collective opinion such as curriculum planning and modifications, policy development, course evaluations, and strategic planning of goals and objectives.

***Application of the Delphi method to distance or online education.*** The Delphi Method of research has been successfully employed for recent distance education research. A ProQuest search of the key terms and phrases of "distance education" and "Delphi", "distance learning" and "Delphi", "online learning" and "Delphi", and "online education" and "Delphi" yielded 61 different dissertations studying topics in distance education using the Delphi Method with a considerable less amount of research within

online education. The phrase “best practices for faculty teaching online” was the most common research topic found in both ProQuest and other online databases. Table 7 provides a brief summary of the most recent studies in online education using the Delphi Method for research within the last five years.

***Selection and appropriateness of research method***. The Delphi Method was selected as the appropriate research method to develop the quality scorecard because of its ability “to seek out information which may generate a consensus on the part of the respondent group and correlate informed judgments on a topic spanning a wide range of disciplines” (Delbecq et al., 1975, p. 11). Other research techniques do exist for structured group communication such as the Nominal Group Technique (NGT); however, Nominal Group Technique usually takes place in one face-to-face meeting (Vernon, 2009), which was not adequate to answer the defined research questions for this study because members of the expert panel were geographically located throughout the United States. The NGT research method typically concludes with a final, silent vote that is considered to be group consensus but does not allow for reiteration or final discussion (Van de Ven & Delbecq, 1974).

Topics or decisions considered to be subjective usually do not have a single correct solution. The “affective, emotional, and expressive dimensions of a problem often subordinate the objective, analytical quality of a decision” (Van de Ven & Delbecq, 1974, p. 608). Because the topic of this study, the quality of online education programs, is so subjective, the researcher believes the Delphi process for reiteration improved the overall outcome of the quality scorecard and achieved a greater strength of consensus and buy-in

Table 7

*Dissertations Using the Delphi Method for Online Education Research*

| Year | Topic | Author |
|---|---|---|
| (2009) | The influence of online gaming communities on constructivist online course design | Webb, R. L. |
| (2008) | Community college administrators perceptions of the importance and presence of quality indicators for online education programs | Dilbeck, J. D. |
| (2007) | Necessary elements for exemplary online graduate courses | Nasmyth, D. R. |
| (2007) | Instructors' level of importance of the topics pertaining to the social and educational components of teaching online courses | Flores, S.C. |
| (2007) | Developed a taxonomy of elements of quality courses to determine the effect of quality on student satisfaction | Clawson, S. L. |
| (2007) | Pedagogical beliefs and best practices of professors who are considered experts in the field of teaching in online graduate business programs | Gallegos Butters, A. M. |
| (2006) | Developed a strategic plan for distance education programs at a two-year, multi-campus technical school. | Urban. L. |
| (2006) | Best practices of effective health education faculty teaching online | Fuller, R. G. |
| (2006) | A study of priorities for policy, practice, and research for distance education in K-12. | Rice, K. L. |
| (2006) | Theory of online writing lab pedagogy | O'Toole, K. |
| (2006) | Best practices for K-12 faculty teaching online asynchronously | Siccama, C. J. |
| (2005) | Developed a framework of best practices used by facilitators in online asynchronous K-12 environments | Baker, K. J. |
| (2005) | Guidelines for faculty to culturally transform their curricula for online teaching | Hamideh, A. |
| (2005) | Indentified factors of stress and levels of satisfaction in faculty that only teach online. | McLean, J. |

Table 7 continues

| *Year* | *Topic* | *Author* |
|---|---|---|
| (2005) | Identified 67 benchmarks for quality online education | Mariasingham, M. |
| (2005) | Indicators of best practice for online doctoral courses and programs and indicators of quality in online doctoral courses and programs | Hendrix, M. W. |
| (2004) | Planning and implementing online Cooperative Extension programs | McCaskill, K.N. |
| (2004) | Planning and evaluation of support systems necessary to sustain a quality distance learning program | Osika, E. R. |

from the members of the expert panel. Additionally, because NGT is a face-to-face decision process, groupthink may occur with the stronger opinions of the expert panel members taking precedence over the others. In fact, according to Fischer (1978), "the Delphi Method was developed to avoid the undesirable effects of face-to-face communication" (p. 65) by using anonymous participant responses. Members of the expert panel were not aware of other panel members' individual responses (Rath & Stoyanoff, 1983).

The Delphi Method has been used as a research technique throughout many disciplines, primarily in business, education, and healthcare (often nursing). Judd (1972) identified various areas of higher education research where the Delphi Method had been used: cost-effectiveness and cost analysis, curriculum and campus planning, campus-wide planning and goals including future goals, and evaluation and rating scales. He suggested that the most obvious use of the Delphi Method for higher education was its ability to find consensus for planning and evaluation like the development of the quality scorecard for online education programs proposed in this study. "Whatever the perceived reasons for its choice, the method offers reliability and generalizability of outcomes,

ensured through iteration of rounds for data collection and analysis, guided by the principle of democratic participation an anonymity" (Day & Bobeva, 2005, p. 104).

***The Delphi methodology.*** The Delphi Method is a research technique used to gain consensus among a panel of experts on the given research topic (Fischer, 1978). Linstone and Turoff (2002) formally defined the technique "as a method for structuring a group communication process so that the process is effective in allowing a group of individuals, as a whole, to deal with a complex problem" (p. 3). The Delphi methodology is a structured flow of information involving a systematic series of surveys and reciprocal feedback to survey participants (panel of experts), after each round (Figure 3).

Panel members generate their opinions and are provided an opportunity to think about other members' judgments on the topic (Barnette, Danielson, & Algozzine, 1978) without being influenced by groupthink (Clayton, 1997). According to Streveler, Olds, Miller, and Nelson (2003), "proponents of the Delphi Method recognize human judgment as a legitimate and useful input . . . and believe that the use of experts, carefully selected, can lead to reliable and valid results" (p. 2). The Delphi Method is a powerful tool for group communication (Brown et al., 1969) that allows participants to deliberate and reflect upon the problem resulting in the participants submitting more thoughtful and thorough responses (Pollard & Pollard, 2008).

According to Linstone and Turoff (2002), the following types of research questions suggest a Delphi study may be employed:

- The problem does not lend itself to precise analytical techniques but can benefit from subjective judgments on a collective basis;
- Individuals needed to contribute to the examination of a broad or complex problem, have no history of adequate communication, and may represent diverse backgrounds with respect to experience or expertise;

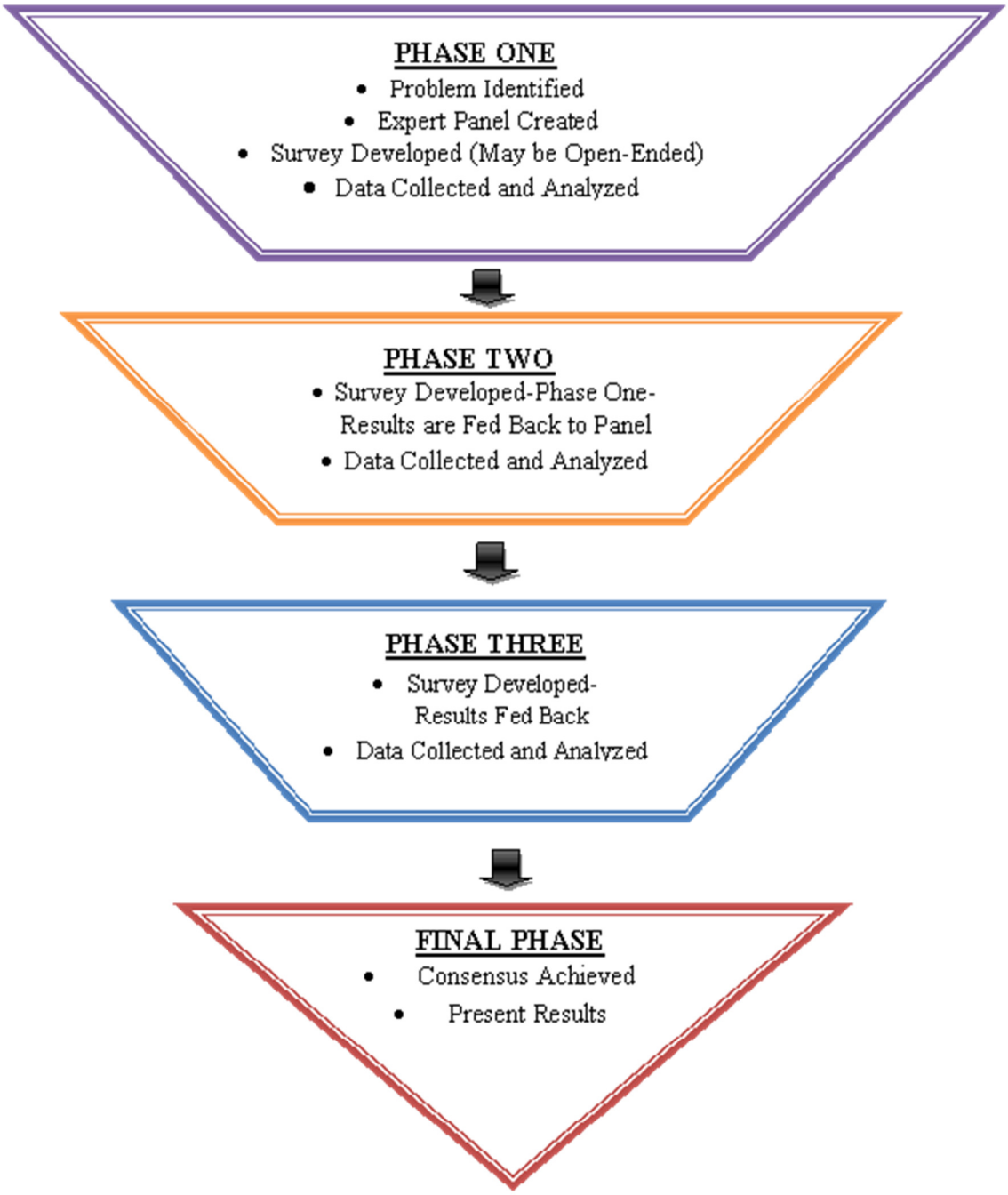



*Figure 3.* Typical steps for a generalized Delphi study.

- More individuals are needed than can effectively interact in a face-to-face exchange;
- Time and cost make frequent group meetings infeasible;
- The efficiency of face-to-face meetings can be increased by a supplemental group communication process;
- Disagreements among individuals are so severe or politically unpalatable that the communication process must be refereed and/or anonymity assured;
- The heterogeneity of the participants must be preserved to assure validity of the results, i.e., avoidance of domination by quantity or by strength of personality (bandwagon effect). (p. 4)

This study was based upon the subjective judgments of a panel of experts in the administration of online education, without requiring face-to-face meetings since the members of the expert panel were widely located throughout the United States. Because the topic of quality was very subjective, the possibility of groupthink and members of the panel being led to respond by stronger members existed; therefore, the data for this study was collected asynchronously and anonymously using computer-mediated procedures with Internet surveys for data collection utilizing Survey Monkey.

Linstone and Turoff (2002) described a Delphi study as four distinct phases:

> The first phase is characterized by exploration of the subject under discussion wherein each individual contributes additional information he feels is pertinent to the issues. The second phase involves the process of reaching an understanding of how the group views the issue (i.e., where the members agree or disagree and what they mean by relative terms such as importance, desirability, or feasibility). If there is significant disagreement, then that disagreement is explored in the third phase to bring out the underlying reasons for the difference and possibly to evaluate them. The last phase, a final evaluation, occurs when all previously gathered information has been initially analyzed and the evaluations have been fed back for consideration. (pp. 5-6)

A Delphi study does not usually have a predetermined number of rounds; however, an average Delphi study usually has at least three survey rounds. This study concluded after six Delphi survey rounds. Delphi studies are often needed when potential respondents are not located in the same vicinity and broad panel member representation

is desired. The entire data collection process was completed using the Internet, which provided the following advantages: cost, time, and geographical separation; process allows participants time to think through their ideas; time to digest the group's ideas; and anonymity of the respondents allows opinion expression (Rotondi & Gustafson, 1996).

*Study population, sample frame and sampling plan.* The study population consisted of online education administrators in higher education who were considered experts in the respective field. According to Ziglio (1996), if the Delphi panel of experts is selected by personal preference of the researcher, the overall validity of the study could decrease. Therefore, the sampling frame was identified by the Sloan Consortium (Sloan-C), an organization highly respected for its work with quality online education initiatives (Appendix B).

The Sloan Consortium is an "institutional and professional leadership organization dedicated to integrating online education into the mainstream of higher education, helping institutions and individual educators improve the quality, scale, and breadth of online education" (Sloan Consortium, 2009a). Originally funded by the Alfred P. Sloan Foundation, a philanthropic, not-for-profit grant-providing organization, the Sloan Consortium is now funded by its members and continues to help colleges and universities in support of their own institutional missions and continually improve the quality of online education, so that students may learn anywhere, at any time. The Sloan Consortium

> generates ideas to improve products, services and standards for the online learning industry, and assists members in collaborative initiatives. Members include (1) private and public universities and colleges, community colleges and other accredited course and degree providers, and (2) organizations and suppliers of services, equipments, and tools that practice the Sloan-C quality principles. (Sloan Consortium, 2009a)

Before researcher criteria is met, according to Delbecq and associates (1975), each member of the panel of experts should have met the following requirements:

1. Feel personally involved in the problem of concern to the decision makers;
2. Have pertinent information to share;
3. Are motivated to include the Delphi task in their schedule of competing tasks;
4. Feel that the aggregation of judgments of a respondent panel will include information which they too value and to which they would not otherwise have access. (pp. 87-88)

Ziglio (1996) further asserted that panelists should have "knowledge and experience with the issues under investigation; capacity and willingness to participate; sufficient time to participate; and effective written communication skills" (p. 14). Baker, Lovell, and Harris (2006) maintained that members of the expert panel should possess knowledge of the topic being researched and their level of experience should be defined, which may include the existence of published materials in the field of expertise. The potential panel members for this study all had knowledge of online education program administration and wanted the study to be successful because they could possibly benefit from the results.

For this study, each potential panel member was first identified by Sloan-C as recognized experts in the administration of online education who met the established criteria. It is important to note that more than 83% of the panel members had nine or more years of experience in the administration of online education programs (Figure 4). Hsu and Sanford (2007b) advised that assistance from endorsed individuals or groups like the Sloan Consortium may also be helpful when contacting potential panelists.

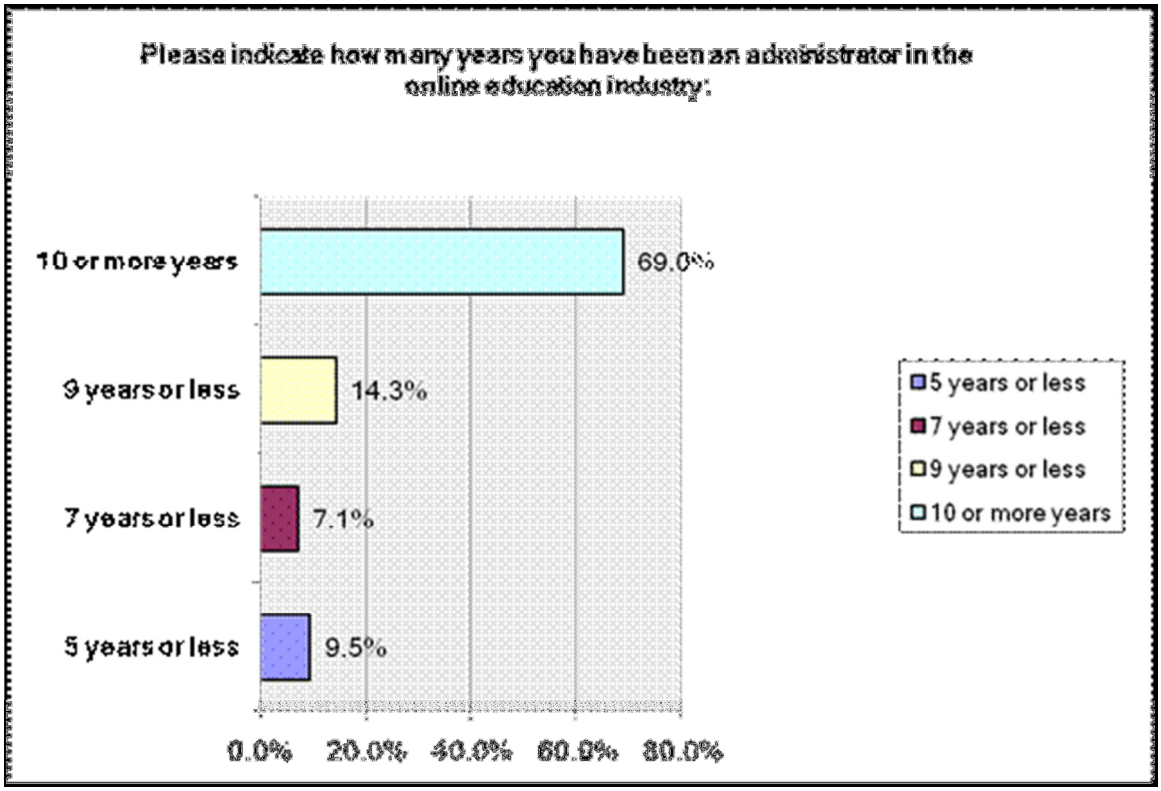



*Figure 4.* Expert panel members' experience as online education administrators.

The literature was not clear on a specific formula for the number of participants in an expert panel (Keeney, Hasson, & McKenna, 2006). Although many researchers have justified the use of very small expert panels, Ludwid (1997) reported the majority of Delphi studies she examined used between 15-20 panel members; however, Brown et al. (1969) prescribed that a seven member panel is the minimum, but reminded us that outcome accuracy slowly increases with larger numbers. For this study, 76 experts were invited; of the 76, 44 were enlisted by an invitation endorsed by the Sloan Consortium (only 43 completed the first survey round). A total of 26 participants completed all six Delphi rounds of the research study.

Delphi studies utilize non-random samples (Garson, 2009); in fact, the literature consistently supports the use of selected panelists for a Delphi sample (Ludwid, 1997;

Twining, 1999). Therefore, coverage error does not apply. However, non-response rate can be a problem for Delphi studies since there is usually a large time commitment involved. Therefore, to encourage full participation, precautions were taken such as making sure the time required was clearly defined, providing a financial incentive, and offering a copy of the completed scorecard with permission for use to evaluate their own online education programs. Participants received a monetary honorarium of a $25 Amazon.com gift card provided by the researcher for their participation in the study.

*Expert panel selection*. According to Hsu and Sandford (2007a), "there is, in fact, no exact criterion currently listed in the literature concerning the selection of Delphi participants" (p. 3). In fact, Keeney and associates (2006) suggested that often, the decision for selection is based upon funding, logistics, and rigorous inclusion and exclusion criteria. However, Delbecq and associates (1975) put forth that the following three groups of people may as qualify expert panel members for a Delphi study:

1. The top management decision makers who will utilize the outcomes of the Delphi study;
2. The professional staff members together with their support team; and
3. The respondents to the Delphi questionnaire whose judgments are being sought. (p. 85)

Because the outcome of a Delphi study is based upon expert opinion, the results of the study are only as strong as the expertise of the panel members (Hsu & Sandford, 2007a; Martino, 1978; Murry & Hamons, 1995; Powell, 2003; Rowe & Wright, 2001; Yousuf, 2007). In fact, one of the greater strengths of the Delphi Method is that it motivates innovative thinking (Rath & Stoyanoff, 1983) and facilitates a powerful group decision-making process (Martino, 1978).

Panel criteria. Because experts with applicable domain knowledge were necessary for this study (Rowe & Wright, 2001), the Sloan Consortium endorsed the study and acted as a gatekeeper to identify potential panel members. Hasson, Keeney and McKenna (2000) believed that using a gatekeeper to help with panel selection may increase access to the participants and increase validity and authenticity of the study. For this study, the panel of experts met the following criteria:

1. Five or more years experience as an administrator of online program in higher education;
2. Identified by the Sloan Consortium as a respected expert in the field of online education (having published or presented); and
3. Work at one of the various types of higher education institutions:
    a. Community College
    b. Public University
    c. Private College or University
    d. Faith-based College or University
    e. For-Profit Institution.

Table 8 shows the institutional classification for the members of the expert panel. Of the 43 panel members, 56% were from large public institutions. Four large private universities were represented along with two large public community colleges. One panel member was from a large faith-based university and one was from a large private for-profit university. There were ten medium-sized institutions represented: two public, three non-profit private, and three non-profit private faith-based institutions. There were three small institutions represented: one public and two private non-profit institutions.

Table 8

*Institutional Classification for Expert Panel Members*

| Institutional Classification | Type | Size | Total |
|---|---|---|---|
| Public (4 year) | Non-profit | Large | 24 |
| Public Community College (2 year) | Non-profit | Large | 2 |
| Private (4 year) | Non-profit | Large | 4 |
| Private (4 year) | For-profit | Large | 1 |
| Private Faith-Based (4 year) | Non-profit | Large | 1 |
| Public (4 year) | Non-profit | Medium | 2 |
| Private (4 year) | Non-profit | Medium | 3 |
| Private Faith-based (4 year) | Non-profit | Medium | 3 |
| Public (4 year) | Non-profit | Small | 1 |
| Private (4 year) | Non-profit | Small | 2 |

## Instrumentation and Procedure

The majority of Delphi studies use an open-ended questionnaire for collecting data in the initial phase (Hasson et al., 2000; Keeney et al., 2006); however, since the IHEP quality standards already existed before this study, judgment of the 24 quality standards identified by the IHEP study occurred in Delphi Round I. Respondents were also invited to suggest additional quality indicators they believed to be relevant for measuring quality in online education programs. Therefore, a combination of open-ended and closed questions was used for the first round of questioning. According to Mitchell (1991), the use of open-ended questions in the Delphi Method "allows panelists to utilize the intellectual apparatus that makes them experts and may reduce any feeling of underutilization" (p. 344). This may have also increased their commitment to the research study because they "see their answers incorporated into the questionnaire" (p. 344).

The survey used an interval scale as recommended by Linstone and Turoff (2002); the scale was a five-point Likert scale with a range of 1 = Definitely Not Relevant, 2 = Not Relevant, 3 = Slightly Relevant, 4 = Relevant, 5 = Definitely Relevant. Survey instruments for each round of iteration were carefully designed to encourage members of the panel of experts to provide valid responses. Dillman, Smyth, and Christian (2009) found that shading, font size, and even the size of the answer box on a survey can influence how much information is provided by the respondent. A small text box leads survey responders to believe a short answer is expected and a large text box encourages more in-depth answers. It was important for the panel of experts to feel as though they could respond with numerous quality indicators; therefore, a statement was included that explained the text box would increase as they typed so that expert panel members were not limited by the size of the answer box.

**Variables and measures**. The research variables were the quality indicators for an online education program as identified by a panel of experts. The questionnaire used in Delphi Round I (Appendix D for survey instrument) addressed research question #1. Delphi Rounds I-IV addressed research questions #2-#3 and Delphi rounds V - VI addressed research questions #4 and # 5.

1. Are the standards identified in the IHEP/NEA study in 2000 still relevant in 2010 for indicating quality in online education programs in higher education? (Questions 1-24) (***Delphi Round I***)
2. What additional standards should be included that address the current industry in 2010? (***Delphi Round I -*** Question 25 and ***Delphi Rounds II-IV***)

3. If additional standards are suggested, will they fall into the already identified themes or will new themes emerge? (***Delphi Round I*** - Question 26 and ***Delphi Rounds II-IV***)
4. What values will be assigned to the recommended standards that will ultimately yield a numeric scorecard for measuring quality online education programs from an online education administrator's perspective that could also support strategic planning and program improvements? (***Delphi Rounds V-VI***)
5. How will the numeric scorecard compare to other quality assessment models used in higher education, such as the Balanced Scorecard and the Malcolm Baldrige National Quality Award? (***Delphi Rounds V-VI***)

In Delphi Round I, Question 27 identified participant's experience with a range of years provided. Descriptive statistics were used to determine what items were kept for the subsequent rounds. Many studies choose to use mean scores, mode, or standard deviations, while others use inter-quartile range (IQR) values to determine item agreement among the panel of experts. The literature indicated statistical values used to determine consensus are subjective and will vary from study to study (Hsu & Sandford, 2007a).

**Validity plan**. Winzenried (1997) observed that Delphi studies usually collect experts' opinions anonymously, with several rounds of consideration along with continuous feedback. After the final round, consensus has formed. This is considered to be a relevant and valid measure because it is the accumulated opinions of experts (Baker et al., 2006; Fusfeld & Foster, 1971; Winzenried, 1997). The more the experts agree, the

stronger the validity of the results. Mitroff and Turoff (2002) maintained that "the validity of the resulting judgment of the entire group is typically measured in terms of explicit 'degree of consensus' among the experts" (p. 22).

For face and content validity of the round one instrument, the instrument was pilot tested by five online education administrators and practioners to discern understanding and readability before being released to the nationally recognized panel of experts. The Delphi Method has face validity because experts identified the quality indicators for the scorecard (Baker et al., 2006; Williams & Webb, 1994).

**Pilot survey procedures**. The first round survey instrument was pilot-tested with a web-based survey using five individuals who had five or more years experience in the administration of online education. The Sloan Consortium identified the five participants for the pilot survey from one of their advisory boards made up of representatives of various higher education institutions. Feedback was collected from the pilot survey participants and several weaknesses in the instrument were identified such as clarity of instructions and question validity to improve the survey before the first round delivery to the panel of experts.

**Survey procedures**. The Delphi Method is a research technique with iterative survey rounds used to gain consensus among a panel of experts on the given research topic. Linstone and Turoff (2002) formally defined the technique "as a method for structuring a group communication process so that the process is effective in allowing a group of individuals, as a whole, to deal with a complex problem" (p. 3). Skulmoski, Hartman, and Krahn (2007) suggested that to keep the panel members engaged, the amount of time between survey rounds should be as short as possible to maintain

enthusiasm and participation. Therefore, a conscious effort was made to quickly turn around the data analysis for each Delphi round and release the next survey. The surveys were created and delivered using Survey Monkey, a web-based survey tool that enabled online survey data collection and analysis, which provided efficiency in data collection and analysis.

***Steps in Delphi method***. The Delphi Method is an iterative process in which group consensus is gained, requiring several rounds or phases in which data are collected in an attempt to answer the proposed research questions. For this study, the following steps occurred for the survey and data collection process:

Step 1. The Sloan Consortium identified 76 experts in the administration of online education programs as potential panel members.

Step 2. A completed Institutional Review Board application (IRB form, Appendix A) was submitted to the University of Nebraska-Lincoln for approval to begin the study.

Step 3. The pilot study was conducted with five participants and their feedback was analyzed for instrument improvement.

Step 4. A letter explaining the research study, the purpose for the study, and requesting participation was sent to the sampling frame of 76 prospective panel members identified by the Sloan Consortium. (Appendix C).

Step 5. Some follow-up telephone calls were made to encourage participation in the study and answer questions if necessary.

Step 6. A total of 44 prospective panel members agreed to participate in the study. Signed informed consent forms were obtained for each member of the expert panel.

Step 7. Delphi Round I: An initial email (which provided the Internet link to the first round survey) was sent to each of the participants (Appendix E). A copy of the initial survey instrument (Appendix D) was provided as a hyperlink on the first page of the survey so expert panel members could identify relevant existing quality standards as well as suggest additional standards if necessary. Forty-three participants accessed and completed the survey online with the Internet link provided in the email.

Step 8. A follow-up email (Appendix F) was sent to expert panel members who had not completed the survey after one week to remind them their participation was necessary for Delphi Round I. An additional follow-up email (Appendix G) was sent a few days before the survey closed to members who had not completed the survey.

Step 9. Once the data were collected and analyzed from the Delphi Round I survey, statistics were verified by an external reviewer, and the Delphi Round II survey instrument was developed for online delivery based upon the results from Delphi Round I. The Delphi Round II survey instrument (Appendix K) provided the mean scores from Delphi Round I, the aggregated data from the additional quality standards, and suggestions for the revision of existing standards to be evaluated by the panel.

Step 10. Institutional Review Board approval was received for Delphi Round II (Appendix J).

Step 11. An email (Appendix L) was sent to members of the expert panel, announcing availability of Delphi Round II (43 emails were sent). Participants completed the survey online using the Internet link provided in the email.

Step 12. A follow-up email (Appendix M) was sent to expert panel members who had not completed the survey after one week to remind them their participation was necessary for Delphi Round II. An additional follow-up email (Appendix N) was sent two days before Delphi Round II ended to remind the members of the expert panel to fill out the survey.

Step 13. Once the data were collected and analyzed from the Delphi Round II survey, the statistics were verified by an external reviewer, and the Delphi Round III survey instrument was developed for online delivery based upon the results from Delphi Round II. The Delphi Round III survey instrument (Appendix Q) provided the consensus level and mean scores from Delphi Round II and results from the suggestions for revision of the provided quality standards. If consensus was not achieved on the additional quality indicators that were suggested by the panel members, those equaling 70% agreement were fed back to the expert panel in the next round.

Step 14. Institutional Review Board approval was received for Delphi Round III (Appendix P).

Step 15. An email (Appendix R) was sent to each member of the expert panel (38 emails), announcing availability of Delphi Round III. Participants completed the survey online using the Internet link provided in the email.

Step 16. A follow-up email (Appendix S) was sent to members of the expert panel who had not completed the survey after one week to remind them their participation was necessary for Delphi Round III. A final reminder email (Appendix T) was sent two days before the survey closed to seven panel members.

Step 17. Once the data were collected and analyzed from the Delphi Round III survey, statistics verified by an external reviewer, and the Delphi Round IV survey instrument was developed for online delivery based upon the results from Delphi Round IV. The Delphi Round IV survey instrument (Appendix X) provided the consensus level and some mean scores for each survey question from Delphi Round III and results of the collective standards identified by the panel of experts. If consensus was not achieved in Delphi Round III on the additional quality indicators that were suggested by the panel members, those equaling 70% agreement were fed back to the expert panel. The final question of Delphi Round IV solicited a method of scoring for quantifying each quality standard, thereby, creating the scorecard.

Step 18. Institutional Review Board approval was received for Delphi Round IV (Appendix W).

Step 19. An email (Appendix Y) was sent to each member of the expert panel, announcing availability of Delphi Round IV. Participants completed the survey online using the Internet link provided in the email.

Step 20. A follow-up email (Appendix Z) was sent to members of the expert panel after one week to remind them their participation was necessary for Delphi Round IV. A second email was sent as a reminder (Appendix AA) and a final email (Appendix BB) was sent the day before the survey closed.

Step 21. Once the data were collected and analyzed from the Delphi Round IV survey, the Delphi Round V survey instrument was developed for online delivery based upon the results from Delphi Round IV. The Delphi Round V survey instrument (Appendix MM) presented the suggested scoring methods for each standard collected from Delphi Round IV.

Step 22. Institutional Review Board approval was received for Delphi Round V (Appendix LL).

Step 23. An email (Appendix NN) was sent to members of the expert panel, announcing availability of Delphi Round V. Participants completed the survey online using the Internet link provided in the email.

Step 24. A follow-up email (Appendix OO) was sent to expert panel members after one week to remind them their participation was necessary for Delphi Round IV. A final email reminder (Appendix PP) was sent the day before the survey closed.

Step 25. Data collected from Delphi Round V was analyzed and aggregated to determine if consensus had been reached on the scoring method for the quality scorecard. Consensus was not yet reached after Delphi Round V; therefore, an additional survey round was needed and data from Delphi Round V was used to develop the survey for Delphi round VI (Appendix TT). The scoring methods that received votes from 70% of the panel were presented again in Delphi Round VI.

Step 26. Institutional Review Board approval was received for Delphi Round VI (Appendix SS).

Step 27. An email (Appendix UU) was sent to each member of the expert panel, announcing availability of Delphi Round VI. Participants completed the survey online using the Internet link provided in the email.

Step 28. A follow-up email (Appendix VV) was sent to expert panel members after three days to remind them their participation was necessary for Delphi Round VI. A final reminder email was sent the day before the survey closed.

Step 29. Once the data were collected from the Delphi Round VI survey, the data were analyzed. Because final consensus was reached on the scoring method for the quality scorecard, the data collection process ended.

Step 30. A thank you letter including the monetary honorarium ($25 Amazon gift certificate) for participation was sent to each member of the expert panel along with a copy of the resulting quality scorecard for online education programs. Participants were invited to send optional feedback to the

researcher to be used for further research after using the scorecard to evaluate quality in their online education programs.

**Procedures for Data Analysis**

For this research study, a five-point Likert-scale (1 = Definitely Not Relevant, 2 = Not Relevant, 3 = Slightly Relevant, 4 = Relevant, 5 = Definitely Relevant) was used for all questionnaires and descriptive statistics were formulated and reviewed. Mean and median scores along with standard deviation and mode analysis may be used in Delphi studies to determine consensus as well as percentage of responses (Hasson et al., 2000; Hsu & Sandford, 2007a; Powell, 2003). In fact, Holey, Feeley, Dixon, and Whittaker (2007) found that the combination of mean and standard deviation along with range and medians, can be used to show consensus with a move toward central tendency.

Many Delphi studies suggest that when 60-80% of panelists agree with a survey item, this signifies consensus (Green, 1982; Miller, 2006; Rath & Stoyanoff, 1983) with a level of 70% being the most commonly chosen (Vernon, 2009); however, a clear guideline for consensus still did not exist in the literature (Keeney et al., 2006). According to Hsu and Sandford (2007a), mean and mode analysis are the most favorably used in the literature.

For this study, the Delphi Round I survey allowed members of the expert panel to add new items to indicate quality for inclusion in the Delphi Round II survey and revise existing IHEP quality standards provided in the Delphi Round I survey. The Delphi Round II survey was developed by including all items from the Delphi Round I survey achieving a mean score of 4.0 or above and a panel member agreement of 70% or more

along with the revision of the existing quality standards, and additional quality indicators suggested by the panel comments from the panel of experts.

After analyzing and verifying the data collected from the Delphi Round II survey, the Delphi Round III survey was developed to include items from the Delphi Round II survey that achieved a mean score of less than 4.0 but selected by 70% of panel members. The Delphi Round III survey included those items for further review by the panel of experts. It also invited panel members to suggest further quality indicators they felt were missing from the previous round. After analyzing and verifying the data collected from the Delphi Round III survey, the Delphi Round IV survey was developed to include all items from the Delphi Round III survey that achieved a mean score of less than 4.0 but selected by 70% of the panel of experts. The Delphi Round IV survey also requested members of the expert panel to suggest possible scoring methods for the quality standards in order create the quality scorecard.

After analyzing and verifying the data collected from the Delphi Round IV survey, the Delphi Round V survey was developed to include the scoring methods suggested in the Delphi Round IV survey. Those items that did not achieve a mean score 4.0 or better or 70% consensus level were fed back to the members of the panel for a re-vote. In Delphi Round V, panel members were asked to vote on which method of scoring would be best, based on their perceptions as administrators for its accuracy in evaluating a quality online program. After analyzing and verifying the data collected from the Delphi Round V survey, the Delphi Round VI survey was developed to include those items from the Delphi Round V survey that were selected by 70% of the panel members as possible scoring methods for the quality scorecard but had not yet reached consensus.

Research question #5 was addressed after Delphi Round VI with a comparison of the quality scorecard developed by this study to the Balanced Scorecard and Malcolm Baldrige award. Each of the seven categories of quality evaluation in the Baldrige process was compared to the nine categories in the quality scorecard to look for similarities of elements within each. The scorecard did not compare at all to the Balanced Scorecard process.

After analyzing and verifying the data collected from the Delphi Round VI, the Delphi study concluded with a developed scorecard for quality online education as perceived by online education administrators. The final step of this Delphi process was to present the developed quality scorecard to the panel of experts to use for evaluating their online education programs. Participants were invited to send optional feedback via email to the researcher to be used for further research after using the scorecard to evaluate quality in their online education programs.

**Summary**

This chapter presented the purpose of the Delphi study, the appropriateness of the selection of the Delphi Method, the research questions that were addressed in the study, the methodology of the study, justification for choosing the Delphi method, and how the members for the panel of experts were selected. The data analysis section described the steps the study required (six survey rounds) to collect the data and the process in which the research data were analyzed.

# Chapter IV

# Data Analysis

This chapter reports the analysis and results of the data collection of the Delphi study implemented in six rounds over a period of 18 weeks with a group of experts in the administration of online education programs in higher education. The Delphi research methodology enabled data collection and analysis that resulted in the development of a quality scorecard for the administration of an online education program. Before data collection began, the dissertation proposal was approved by the dissertation chair and committee members, and the University of Nebraska-Lincoln Institutional Review Board.

## Research Questions

The central purpose for this dissertation was the development of a scorecard to measure and quantify elements of quality within online education programs in higher education that may also support strategic planning and program improvements. The following questions guided the research:

1. Are the standards identified in the IHEP/NEA study in 2000 still relevant in 2010 for indicating quality in online education programs in higher education?
2. What additional standards should be included that address the current industry in 2010?
3. If additional standards are suggested, will they fall into the already identified themes or will new themes emerge?
4. What values will be assigned to the recommended standards that will ultimately yield a numeric scorecard for measuring quality online education

programs from an online education administrator's perspective that could also support strategic planning and program improvements?

5. How will the numeric scorecard compare to other quality assessment models used in higher education, such as the Balanced Scorecard and the Malcolm Baldrige National Quality Award?

**Expert Panel Participation**

According to Rossman and Eldredge (1982), "A key factor in any Delphi Study is the qualification of the population selected to receive the questionnaires" (p. 3). Seventy-six prospective panel members were identified by the Sloan Consortium as meeting the criteria for this research study and solicited for study participation. For this study, the criteria for prospective panel members were:

1. Five or more years experience as an administrator of online program in higher education;
2. Identified by the Sloan Consortium as a respected expert in the field of online education (having published or presented); and
3. Work at one of the various types of higher education institutions: Community College, Public University, Private College or University, Faith-based College or University, or For-Profit Institution.

Forty-four experts in online education administration agreed to participate and signed Informed Consent forms. Table 9 provides the percentage participation of the members of the expert panel for each round. Typical for the Delphi process, 59% of the original panel members completed all six rounds of the Delphi survey process.

Table 9

*Percentage of Expert Panel Participation for Each Round*

| Delphi Round | Total Experts Enlisted | Total Experts Who Completed the Survey | Response Rate |
|---|---|---|---|
| I | 44 | 43 | 97.7% |
| II | 43 | 41 | 95.5% |
| III | 38 | 33 | 86.8% |
| IV | 33 | 30 | 90.9% |
| V | 30 | 28 | 93.3% |
| VI | 28 | 26 | 92.9% |

As confirmed by the literature, it is difficult to keep a panel of experts fully engaged for 18 weeks. However, the participation rate of 86.8% - 97.7% for each round is well above the 70% per round rate that was recommended by Hasson, Keeney, and McKenna (2000) and Sumsion (1998).

**Description and Results of Delphi Rounds**

**Pilot study**. On February 3, 2010, emails were sent to five individuals with extensive experience in online education who had been selected by the Sloan Consortium for a pilot study. The pilot study was primarily used to review Delphi Round I survey instrument for clarity of instructions and usability. All five participants in the pilot study returned feedback regarding the web design of the survey instrument such as spacing between items. The pilot study was completed on February 19, 2010 and modifications were made to the instrument used in the first round based upon participant feedback. Because modifications to the survey instrument were made, the researcher sought

additional approval from the Institutional Review Board, which was granted on February 23, 2010.

***Pilot study analysis and results***. Five individuals with extensive experience in online education reviewed the instrument to be used in the Delphi Round I survey. Four of the five individuals who reviewed the survey had the following suggestions for improvements that were made by the researcher:

1. Spacing between items was adjusted for viewing with both Internet Explorer and Firefox web browsers.
2. An overview of the IHEP 24 Quality Indicators was provided at the end of the survey in addition to the introductory screen.
3. The Save and Quit buttons were moved to a different side of the page after one reviewer said he/she almost clicked the wrong button several times throughout the survey.
4. A progress indicator was added so that survey participants could see what percentage of the survey they had completed with each question they answered.
5. Clearer instructions were provided for the introductory screen to advise participants of the overall goal of the study.
6. The quality indicators were grouped on the same web page for participant viewing instead of having all 24 items on individual web pages.
7. A “thank you” screen was added to the final page of the online survey instrument.

After all modifications were made, the Institutional Review Board granted approval (Appendix A) and the research study officially began on February 21, 2010.

**Delphi Round I**. On January 20, 2010, a letter was mailed to the 76 potential experts in online education administration to invite their participation in the Delphi study. Informed consent forms were signed and returned by 44 of the 76 invitees. On February 23, 2010, for Delphi Round I, email invitations (Appendix E) for the web-based survey were sent to 44 experts in the administration of online education programs who agreed to be a member of the expert panel for the study. Two additional email invitations were sent on March 1 (Appendix F) and March 3 (Appendix G), respectively, to expert panel members who expressed a willingness to participate and mailed their signed Informed Consent form after Delphi Round I had begun. The Delphi Round I survey instrument (Appendix D) consisted of a total of 27 questions that included 24 structured questions that asked the panel member if the original IHEP 24 indicators were still relevant today in 2010. The first 24 questions also asked the expert panel to evaluate each IHEP quality indicator need of revisions; therefore, an open text box was included so that panel members could make suggestions for each of the revised quality indicators. The Delphi Round I instrument included two open-ended questions that allowed for the brainstorming of additional quality indicators for the quality scorecard and one structured question addressed the length of experience in the administration of online education programs each panel member possessed.

Twenty-seven of the 44 expert panel members had yet to participate and were reminded with an email on March 3, 2010 (Appendix F). A final reminder email was sent on March 7, 2010 (Appendix G) to 12 panel members who had not yet responded. The

survey closed with one panel member having never responded who was then removed from the study for subsequent survey rounds. A total of 43 expert panel members completed the survey in Delphi Round I. Survey results were downloaded from Survey Monkey and analyzed for consensus level in order to develop the survey for Delphi Round II.

***Delphi Round I data analysis and results*.** Delphi Round I requested the panel of experts to rate each of the original IHEP indicators for relevance today in 2010 and also provided an opportunity for suggestions of revisions to the statements. This initial survey round also asked the panel of experts for suggestions of additional quality indicators as well as additional categories that indicators may be organized into a quality scorecard. The results of Delphi Round I for the IHEP indicator revisions may be found in Appendix H and the qualitative results may be found in Appendix I.

*IHEP indicators.* The Delphi Round I results (Appendix H & I) revealed that the members of the expert panel believed that 23 of the 24 IHEP quality indicators were still relevant in 2010; however, each indicator received numerous suggestions for revisions for the wording of the text. Mean scores ranged from M = 4.00 to M = 4.97. The IHEP quality indicator #15 that was not believed to be relevant, "*Students are provided with hands-on training and information to aid them in securing material through electronic databases, interlibrary loans, government archives, news services, and other sources*" had a mean of 3.74, a standard deviation of .912, and 66.2% consensus. This did not meet the guidelines for relevance in this study. There were 22 additional comments and suggested revisions from the panel for this particular quality indicator, and seven of those specifically addressed the phrase "hands on" as being questionable. Only the suggested

revisions were provided in the next survey round since #15 was not determined relevant. The results of questions 1-24 (IHEP 24) from Delphi Round I are presented in Table 10 and include the mean for each item, standard deviation, consensus level, the number of responses, and the number of suggested revisions for each quality indicator. The suggested revisions for each quality indicator were fed back to the panel in Delphi Round II for further analysis with an option to keep the original statement without revisions for all but IHEP #15, which did not gain consensus in Delphi Round I and therefore, did not remain in the original form.

Table 10

*Delphi Round I Results (Questions 1-24, Relevance in 2010)*

| Q# | Quality Indicator Determined by the IHEP (2000) Study | Mean | Standard Deviation | Consensus Level | n | Suggested Revisions |
|---|---|---|---|---|---|---|
| 1 | A documented technology plan that includes electronic security measures (i.e., password protection, encryption, back-up systems) is in place and operational to ensure both quality standards and the integrity and validity of information. | 4.63 | .489 | 100% | 43 | 5 |
| 2. | The reliability of the technology delivery system is as failsafe as possible. | 4.74 | .492 | 97.7% | 43 | 4 |
| 3. | A centralized system provides support for building and maintaining the distance education infrastructure. | 4.62 | .730 | 90.4% | 42 | 6 |

Table 10 continues

| Q# | Quality Indicator Determined by the IHEP (2000) Study | Mean | Standard Deviation | Consensus Level | n | Suggested Revisions |
|---|---|---|---|---|---|---|
| 4. | Guidelines regarding minimum standards are used for course development, design, and delivery, while learning outcomes—not the availability of existing technology—determine the technology being used to deliver course content. | 4.71 | .512 | 97.6% | 41 | 9 |
| 5. | Instructional materials are reviewed periodically to ensure they meet program standards. | 4.69 | .468 | 100% | 42 | 10 |
| 6. | Courses are designed to require students to engage themselves in analysis, synthesis, and evaluation as part of their course and program requirements. | 4.53 | .592 | 95.3% | 43 | 5 |
| 7. | Student interaction with faculty and other students is an essential characteristic and is facilitated through a variety of ways, including voice-mail and/or e-mail. | 4.71 | .602 | 92.7% | 41 | 10 |
| 8. | Feedback to student assignments and questions is constructive and provided in a timely manner. | 4.93 | .261 | 100% | 42 | 6 |
| 9. | Students are instructed in the proper methods of effective research, including assessment of the validity of resources. | 4.24 | .726 | 83.3% | 42 | 6 |
| 10. | Before starting an online program, students are advised about the program to determine (1) if they possess the self-motivation and commitment to learn at a distance and (2) if they have access to the minimal technology required by the course design. | 4.42 | .794 | 83.3% | 43 | 7 |

Table 10 continues

| Q# | Quality Indicator Determined by the IHEP (2000) Study | Mean | Standard Deviation | Consensus Level | n | Suggested Revisions |
|---|---|---|---|---|---|---|
| 11. | Students are provided with supplemental course information that outlines course objectives, concepts, and ideas, and learning outcomes for each course are summarized in a clearly written, straightforward statement. | 4.42 | .762 | 88.4% | 43 | 11 |
| 12. | Students have access to sufficient library resources that may include a "virtual library" accessible through the World Wide Web. | 4.64 | .533 | 97.6% | 42 | 12 |
| 13. | Faculty and students agree upon expectations regarding times for student assignment completion and faculty response. | 4.07 | 1.135 | 76.1% | 42 | 13 |
| 14. | Students receive information about programs, including admission requirements, tuition and fees, books and supplies, technical and proctoring requirements, and student support services. | 4.49 | .703 | 88.4% | 43 | 5 |
| 15. | Students are provided with hands-on training and information to aid them in securing material through electronic databases, interlibrary loans, government archives, news services, and other sources. | 3.74** | .912 | 66.2%** | 42 | 13 |
| 16. | Throughout the duration of the course/program, students have access to technical assistance, including detailed instructions regarding the electronic media used, practice sessions prior to the beginning of the course, and convenient access to technical support staff. | 4.42 | .626 | 93% | 43 | 5 |
| 17. | Questions directed to student service personnel are answered accurately and quickly, with a structured system in place to address student complaints. | 4.63 | .691 | 93% | 43 | 2 |

Table 10 continues

| Q# | Quality Indicator Determined by the IHEP (2000) Study | Mean | Standard Deviation | Consensus Level | n | Suggested Revisions |
|---|---|---|---|---|---|---|
| 18. | Technical assistance in course development is available to faculty, who are encouraged to use it. | 4.63 | .536 | 97.7% | 43 | 7 |
| 19. | Faculty members are assisted in the transition from classroom teaching to online instruction and are assessed during the process. | 4.55 | .633 | 92.9% | 42 | 11 |
| 20. | Instructor training and assistance, including peer mentoring, continues through the progression of the online course. | 4.38 | .764 | 88.1% | 42 | 5 |
| 21. | Faculty members are provided with written resources to deal with issues arising from student use of electronically-accessed data. | 4.00 | .961 | 70% | 40 | 11 |
| 22. | The program's educational effectiveness and teaching/learning process is assessed through an evaluation process that uses several methods and applies specific standards. | 4.67 | .522 | 97.7% | 43 | 4 |
| 23. | Data on enrollment, costs, and successful/innovative uses of technology are used to evaluate program effectiveness. | 4.02 | .938 | 72.1% | 43 | 7 |
| 24. | Intended learning outcomes are reviewed regularly to ensure clarity, utility, and appropriateness. | 4.71 | .508 | 97.6% | 42 | 4 |

*Additional quality indicators suggested by the panel of experts*. In addition to the 24 IHEP quality indicators being evaluated, the members of the expert panel used two open-ended questions in Delphi Round I (Appendix I) to provide additional categories of quality indicators and individual quality indicators they believed were not included in the original 24 IHEP list of indicators. Twenty-nine panel members provided additional comments and suggestions for additional quality indicators in response to survey question

#25 which requested additional quality indicators that were not addressed by the original IHEP 24 standards. The data were examined for content analysis and duplicate elements were removed during data reduction. The responses were then coded using color highlighting in an Excel spreadsheet. Of the 29 narrative responses (most responses contained several suggestions), 73 potential quality indicators were derived after all responses were coded and placed into the original IHEP categories until additional categories had been approved by the panel. Table 11 depicts the number of suggested quality indicators by category and Appendix I shows all 73 of the suggested quality indicators. It was later discovered after Delphi Round IV, that one of the 73 suggested indicators was really two separate indicators, making it a total of 74 possible indicators being voted on by the expert panel. The two separate indicators were reexamined for relevance by the panel of experts in Delphi Round VI . An additional six indicators were later found and added to Delphi Round VI. They are not included in Table 11.

Table 11

*The Number of Suggested Quality Indicators by Category in Delphi Round I*

| Category | Number of Suggested Quality Indicators |
|---|---|
| Institutional Support | 13 |
| Course Development | 12 |
| Teaching and Learning | 5 |
| Course Structure | 7 |
| Student Support | 16 |
| Faculty Support | 6 |
| Evaluation and Assessment | 14 |

Nineteen narrative responses were provided by panel members in response to question #26, which was the request for additional categories of quality indicators although not all responses included suggestions for additional categories. From the 19 responses, 20 additional categories were suggested. Appendix I presents the 73 additional indicators and 20 possible categories of indicators suggested by the panel. Included in these qualitative responses were suggestions to change the Institutional Support category to Institutional and Technology Support and also a suggestion that these should be two individual categories. This decision was fed back in the next survey round as all of the results of Delphi Round I were used to develop the survey for Delphi Round II. After the Delphi Round II survey was developed, the Institutional Review Board granted approval (Appendix J) and the research study proceeded.

**Delphi Round II.** On March 26, 2010, for Delphi Round II, email invitations (Appendix L) for the web-based survey were sent to 43 experts in the administration of online education programs who agreed to be a panel member for the study and had completed the survey in Delphi Round I. An additional email was sent on April 1 after the researcher realized a panel member had been erroneously omitted from the email list. The Delphi Round II survey instrument (Appendix K) consisted of a total of 34 questions:

Question #1, a structured question with an open-ended text box available for participant feedback, addressed the suggestion of adding Technology to Institutional Support or creating a separate category for Technology Support;

Question #2, a structured question, addressed the 20 additional categories of quality indicators that were suggested by the panel members in Delphi Round I and included an open-ended text box available for participant feedback;

Questions #3 - #26, structured questions with open-ended text boxes available for participant feedback, asked the members of the expert panel expert to examine

the original IHEP 24 indicators and determine if one of the suggested revisions by the panel members should be used or the quality indicator should remain unchanged from the original IHEP 2000 version;

Questions #27 - #33, structured questions using the five-point Likert-scale (1 = Definitely Not Relevant, 2 = Not Relevant, 3 = Slightly Relevant, 4 = Relevant, 5 = Definitely Relevant), presented the additional quality indicators by category that were suggested in Delphi Round I for rating of relevance by the expert panel.

Question #34, an open-ended question, solicited information from the members of the expert panel if they believed there were additional quality indicators that still needed to be evaluated.

Twenty-three of the 43 total panel members had not participated on April 1, 2010 and were reminded with an email (Appendix M) and encouraged to participate. Because a panel member had emailed and requested a list of all survey questions for Round II be provided, an email was sent to all panel members with an attached file of the survey questions. A final reminder email (Appendix N) was sent on April 7, 2010 to 11 panel members who had not yet responded. The survey closed with two panel members never having responded who were then removed from the study for subsequent survey rounds. A total of 38 expert panel members (95.5% response rate) completed the survey in Round II and three panel members partially completed the survey. The three panel members who did not fully complete the survey were removed from the study for subsequent survey rounds which left 38 panel members still active in the study after Delphi Round II. The survey results were downloaded and analyzed for consensus in order to develop the survey for Delphi

Round III.

***Delphi Round II data analysis and results***. Delphi Round II fed back to the panel of experts the results from Delphi Round I in an attempt to gain consensus on all of the

IHEP indicator revisions, newly suggested categories, and potential quality indicators. Full results of Delphi Round II may be found in Appendix O.

*IHEP indicators*. The first question addressed the *Institutional Support* category question from Delphi Round I: Should the word *Technology* be added to the title, making it *Institutional and Technology Support*, or should the category remain titled *Institutional Support,* or if *Technology Support* should become a standalone category. The majority of responses were split between the following two options: Institutional and Technology Support (40% of the panel agreed) or separating them into two categories, Institutional Support and Technology Support (40% of the panel agreed) with some written feedback regarding the type of technology support was academic or educational.

Each of the additional 20 categories that were suggested by the panel in Delphi Round I was rated in Delphi Round II in question #2, using the Likert-scale of 1 - Definitely Not Relevant (Or Already Listed), 2 - Not Relevant, 3 - Slightly Relevant, 4 - Relevant, 5 - Definitely Relevant, and a possible additional rating of *Not a Category/Theme but should be a quality indicator*. Of the 20 categories suggested, none met the guidelines of a mean of 4.0 or more and 70% agreement. However, three of the categories received 70% of the panel votes to be returned in Delphi Round III: Social and Student Engagement (Mean = 3.81, 70% panel agreement); Accessibility (Mean = 4.60, 62.5% panel agreement); and Instructional Design (Mean = 4.03, 60% panel agreement).

Consensus was not reached in Delphi Round II on the original 24 IHEP indicators or suggested revisions, presented in questions #3 - #26. In fact, six additional revisions were suggested to the original IHEP indicators through qualitative responses and were added to Delphi Round III survey for five of the 24 IHEP Indicators. Revisions that did

not receive 70% of the panel vote were eliminated and not included in Delphi Round III (Table 12). Seven of the 24 IHEP indicators (#1, #7, #13, #14, #15, #16, #21) did not receive enough votes to keep the statement in its original format.

Table 12

*The 24 IHEP (2000) Quality Indicator Revisions*

| Q# | Quality Indicator Determined by the IHEP (2000) Study | Revisions Suggested in Delphi Round I | Revisions Suggested in Delphi Round II | Suggested Revisions Eliminated After Delphi Round II | Suggested Revisions Returned in Delphi Round III for Re-vote |
|---|---|---|---|---|---|
| 1. | A documented technology plan that includes electronic security measures (i.e., password protection, encryption, back-up systems) is in place and operational to ensure both quality standards and the integrity and validity of information. | 5 | 0 | 4 | 2 |
| 2. | The reliability of the technology delivery system is as failsafe as possible. | 4 | 0 | 2 | 2 + Original |
| 3. | A centralized system provides support for building and maintaining the distance education infrastructure. | 6 | 0 | 4 | 2 + Original |
| 4. | Guidelines regarding minimum standards are used for course development, design, and delivery, while learning outcomes—not the availability of existing technology—determine the technology being used to deliver course content. | 9 | 0 | 3 | 6 + Original |

Table 12 continues

| Q# | Quality Indicator Determined by the IHEP (2000) Study | Revisions Suggested in Delphi Round I | Revisions Suggested in Delphi Round II | Suggested Revisions Eliminated After Delphi Round II | Suggested Revisions Returned in Delphi Round III for Re-vote |
|---|---|---|---|---|---|
| 5. | Instructional materials are reviewed periodically to ensure they meet program standards. | 10 | 1 | 7 | 4 + Original |
| 6. | Courses are designed to require students to engage themselves in analysis, synthesis, and evaluation as part of their course and program requirements. | 5 | 1 | 3 | 3 + Original |
| 7. | Student interaction with faculty and other students is an essential characteristic and is facilitated through a variety of ways, including voice-mail and/or e-mail. | 10 | 0 | 7 | 4 |
| 8. | Feedback to student assignments and questions is constructive and provided in a timely manner. | 6 | 2 | 4 | 4 + Original |
| 9. | Students are instructed in the proper methods of effective research, including assessment of the validity of resources. | 6 | 0 | 3 | 3 + Original |
| 10. | Before starting an online program, students are advised about the program to determine (1) if they possess the self-motivation and commitment to learn at a distance and (2) if they have access to the minimal technology required by the course design. | 7 | 0 | 4 | 3 + Original |

Table 12 continues

| Q# | Quality Indicator Determined by the IHEP (2000) Study | Revisions Suggested in Delphi Round I | Revisions Suggested in Delphi Round II | Suggested Revisions Eliminated After Delphi Round II | Suggested Revisions Returned in Delphi Round III for Re-vote |
|---|---|---|---|---|---|
| 11. | Students are provided with supplemental course information that outlines course objectives, concepts, and ideas, and learning outcomes for each course are summarized in a clearly written, straightforward statement. | 11 | 0 | 6 | 4 + Original |
| 12. | Students have access to sufficient library resources that may include a "virtual library" accessible through the World Wide Web. | 12 | 0 | 7 | 5 + Original |
| 13. | Faculty and students agree upon expectations regarding times for student assignment completion and faculty response. | 13 | 0 | 8 | 6 |
| 14. | Students receive information about programs, including admission requirements, tuition and fees, books and supplies, technical and proctoring requirements, and student support services. | 5 | 0 | 3 | 3 |
| 15. | Students are provided with hands-on training and information to aid them in securing material through electronic databases, interlibrary loans, government archives, news services, and other sources. | 13 | 0 | 10 | 6 |

Table 12 continues

| Q# | Quality Indicator Determined by the IHEP (2000) Study | Revisions Suggested in Delphi Round I | Revisions Suggested in Delphi Round II | Suggested Revisions Eliminated After Delphi Round II | Suggested Revisions Returned in Delphi Round III for Re-vote |
|---|---|---|---|---|---|
| 16. | Throughout the duration of the course/program, students have access to technical assistance, including detailed instructions regarding the electronic media used, practice sessions prior to the beginning of the course, and convenient access to technical support staff. | 5 | 0 | 3 | 2 |
| 17. | Questions directed to student service personnel are answered accurately and quickly, with a structured system in place to address student complaints. | 2 | 1 | 1 | 2 + Original |
| 18. | Technical assistance in course development is available to faculty, who are encouraged to use it. | 7 | 1 | 3 | 5 + Original |
| 19. | Faculty members are assisted in the transition from classroom teaching to online instruction and are assessed during the process. | 11 | 0 | 6 | 5 + Original |
| 20. | Instructor training and assistance, including peer mentoring, continues through the progression of the online course. | 5 | 0 | 3 | 2 + Original |
| 21. | Faculty members are provided with written resources to deal with issues arising from student use of electronically-accessed data. | 11 | 0 | 7 | 5 |

Table 12 continues

| Q# | Quality Indicator Determined by the IHEP (2000) Study | Revisions Suggested in Delphi Round I | Revisions Suggested in Delphi Round II | Suggested Revisions Eliminated After Delphi Round II | Suggested Revisions Returned in Delphi Round III for Re-vote |
|---|---|---|---|---|---|
| 22. | The program's educational effectiveness and teaching/learning process is assessed through an evaluation process that uses several methods and applies specific standards. | 4 | 0 | 2 | 2 + Original |
| 23. | Data on enrollment, costs, and successful/innovative uses of technology are used to evaluate program effectiveness. | 7 | 0 | 4 | 3 + Original |
| 24. | Intended learning outcomes are reviewed regularly to ensure clarity, utility, and appropriateness. | 4 | 0 | 3 | 1 + Original |

*Additional quality indicators suggested by the panel of experts*. Fourteen of the 73 additional quality indicators suggested by the panel in Delphi Round I were approved with a mean of 4.0 or and met the established parameter of having 70% or more of the panel in agreement in Delphi Round II. Of the remaining 59 quality indicators that were previously suggested by the panel, eight were eliminated due to receiving low response from the panel (less than 70% of the panel members believed they were relevant). Three of the remaining quality indicators were retired after a closer examination; the researcher determined they were close duplicates of another indicator. Table 13 shows the three suggested indicators and their duplicate versions that were retired. Forty-eight indicators received 70% of the panel vote and were returned for another vote in Delphi Round III in spite of not achieving consensus. All of the Delphi Round II results can be found in Appendix O.

Table 13

*Duplicate Indicators Retired in Delphi Round II*

| Retired Indicator in Delphi Round II | Consensus Level | Similar Indicator Returned for Re-vote in Delphi Round III with Higher Level of Consensus | Consensus Level |
|---|---|---|---|
| Course Development Category: Instructional design is provided for creation of effective pedagogy for synchronous sessions. | M = 3.55, 79% | Instructional design is provided for creation of effective pedagogy for both synchronous and asynchronous class sessions. | M = 3.84, 84% |
| Teaching and Learning Category: Students are provided access to library professionals and resources that help them to deal with the overwhelming amount of online resources. | M = 3.11, 71% | Students are provided access to library professionals and resources that help them to deal with the overwhelming amount of online resources. | M = 3.39, 79% |
| Student Support Category: Students should be provided a way to interact with other students in an online community | M = 3.42, 74% | Students should be provided a way to interact with other students in an online community. | M = 3.61, 79% |

Six additional quality indicators in the Teaching and Learning and Course Structure categories (making it a total of 80 quality indicators) were suggested by a panel member but inadvertently were not included in Delphi Round III; they were later included in the Delphi Round VI survey and rated by the panel at that time. Table 14 shows each suggested quality indicator and resulting data of Delphi Round I (does not include the six provided in Delphi Round VII). If consensus was reached, that indicator was moved to the list of approved indicators for the scorecard. Those that did not achieve consensus but marked by 70% of the panel as Slightly Relevant, Relevant, or Relevant, were returned in the next Delphi round to be rerated by the panel of experts.

After the data analysis was completed in Delphi Round II, the Delphi Round III survey was developed. The Institutional Review Board granted approval (Appendix P) and the Delphi study proceeded with the next round.

**Delphi Round III.** On May 4, 2010, for Delphi Round III, email invitations (Appendix R) were sent to 38 experts in the administration of online education programs who agreed to be a panel member for the study and had completed the survey in Delphi Round II. The Delphi Round III survey instrument (Appendix Q) consisted of a total of 42 questions:

Questions #1, a structured question, addressed dividing an existing category of indicators into two categories (institutional support and technology support); this question was fed back from Round II since consensus was not reached.

Question #2, a structured question, addressed the additional categories of quality indicators that did not receive consensus by the panel members in Delphi Round II. Those suggestions with 70% or more of the panel rating them *Slightly Relevant, Relevant* or *Definitely Relevant* were fed back to the panel to obtain consensus.

Questions #3 - #26, structured questions, determined which suggested revision should be used for the 24 IHEP quality indicators or if the indicator should remain unchanged. The suggested revisions in Delphi Round II with 70% or more of the panel rating them Slightly Relevant, Relevant or Definitely Relevant were fed back to the expert panel for consensus.

Questions #28 - #41, structured questions using the five-point Likert-scale (1 = Definitely Not Relevant, 2 = Not Relevant, 3 = Slightly Relevant, 4 = Relevant, 5 = Definitely Relevant) presented the additional quality indicators that did not receive consensus in Delphi Round II. Only those indicators that 70% of the panel marked as Slightly Relevant, Relevant, or Relevant were fed back to the expert panel for consensus.

Question #42, an open-ended question, solicited the members of the expert panel to determine if they believed there were additional quality indicators that still needed to be evaluated. (Delphi Round III Instrument can be found in Appendix Q)

Twenty-eight of the 38 total panel members had not participated and were reminded with an email (Appendix R) on May 11, 2010. Two of the panel members requested additional emails that provided their web link to the survey. A second reminder email (Appendix S) was sent to 17 panel members on May 17, which was the last day the survey was available online. A panel member sent an email requesting the survey be reopened because they had experienced technical difficulties. A final reminder email (Appendix T) was sent on May 19, 2010 to five panel members who had not yet responded, explaining the survey would be open one additional day. The survey closed with five panel members being removed from the study for non-response. A total of 33 expert panel members completed the survey in Round III. The survey results were downloaded from Survey Monkey and analyzed for consensus in order to develop the survey for Delphi Round IV.

***Delphi Round III data analysis and results***. Delphi Round III fed back to the panel of experts the results from Delphi Round II in an attempt to gain consensus on the IHEP indicator revisions, newly suggested categories, and potential quality indicators. Full results of Delphi Round III may be found in Appendix V.

*Categories suggested by the panel of experts*. In Delphi Round I, a member of the panel suggested that the category of Institutional Support should address those standards with the scope of support provided by the institution and the Technology Support category should become a standalone category. Question #1 presented this option again to the panel of experts and consensus was achieved by 81.3% in Delphi Round III for the category to become two distinct categories: Institutional Support and Technology Support.

Question #2 presented the three suggested categories from Delphi Round II that were close to consensus. Two of the three additional categories received consensus in this round: Social and Student Engagement with M = 4.04 and 70.8% consensus and Instructional Design with M = 4.27 and 86.7% consensus, as shown in Table 15. After reviewing the suggested and approved quality indicators, the researcher determined there was no clear distinction between Instructional Design and the already existing Course Development category. Therefore, the category was renamed to Course Development and

Table 15

*Additional Suggested Category Results, Question #2*

| | Delphi Round II | | Delphi Round III | |
|---|---|---|---|---|
| | Mean | Consensus Level | Mean | Consensus Level |
| Social and Student Engagement | 3.81 | 70.00% | 4.04 | 70.8% |
| Accessibility | 4.60 | 62.50% | 3.86 | 66.6% |
| Instructional Design | 4.03 | 60.00% | 4.27 | 86.7% |

Instructional Design. The Accessibility category decreased in Mean from 4.60 in Delphi Round II to 3.86 in Delphi Round III (a quality indicator addressing accessibility in the Student Support category was approved in Delphi Round II).

*IHEP indicators*. Fifteen of the original IHEP Indicators were approved with revisions (#1, #2, #6, #9, #10, #12, #13, #14, #15, #16, #17, #20, #21, #23, #24). The panel of experts determined that the IHEP indicators #18, *Technical assistance in course development is available to faculty, who are encouraged to use it* and #19, *Faculty members are assisted in the transition from classroom teaching to online instruction and*

*are assessed during the process*, were combined into one quality indicator—*Technical assistance in course development and assistance with the transition to teaching online is provided*.

Also in Delphi Round III, the panel of experts, with 72.7% consensus, determined that the IHEP indicator #10, *Before starting an online program, students are advised about the program to determine (1) if they possess the self-motivation and commitment to learn at a distance and (2) if they have access to the minimal technology required by the course design*, should be divided into the following two quality indicators: *Before starting an online program, students are advised about the program to determine if they possess the self-motivation and commitment to learn at a distance* and *Before starting an online program, students are advised about the program to determine if they have access to the minimal technology required by the course design*. The panel of experts also determined that the two new indicators should be moved from the Course Structure category to the Student Support category. Table 16 presents the level of consensus for each IHEP indicator and the revised version of the indicator approved by the panel of experts.

Table 16

*Delphi Round III Data Analysis for Approved Revisions to the Original IHEP Indicators*

| Original IHEP Quality Indicator | Level of Consensus for Revision | Newly Revised Indicator |
|---|---|---|
| #1 | 77.4% | A documented technology plan that includes electronic security measures (e.g., password protection, encryption, secure online or proctored exams, etc.) is in place and operational to ensure quality standards, adherence to FERPA and the integrity and |

| | | |
|---|---|---|
| | | validity of information. |
| #2 | 77.8% | The technology delivery systems are highly reliable and operable with measurable standards being utilized such as system downtime tracking or task benchmarking. |
| #6 | 70% | Courses are designed so that students develop the necessary knowledge and skills to meet learning objectives at the course and program level. These may include engagement via analysis, synthesis and evaluation. |

Table 16 continues

| Original IHEP Quality Indicator | Level of Consensus for Revision | Newly Revised Indicator |
|---|---|---|
| #9 | 75.7% | Students learn appropriate methods for effective research, including assessment of the validity of resources and the ability to master resources in an online environment. |
| #10 | 72.7% | Divide into two questions: Before starting an online program, students are advised about the program to determine if they possess the self-motivation and commitment to learn at a distance. |
| | | Before starting an online program, students are advised about the program to determine if they have access to the minimal technology required by the course design. |
| #12 | 87.9% | The institution ensures that all distance education students, regardless of where they are located, have access to library/learning resources adequate to support the courses they are taking |
| #13 | 84.8% | Expectations for student assignment completion, grade policy and faculty response are clearly provided in the course syllabus. |
| #14 | 93.9% | Students receive (or have access to) information about programs, including admission requirements, tuition and fees, books and supplies, technical and proctoring requirements, and student support services prior to admission and course registration. |
| #15 | 75% | Students are provided with access to training and information they will need to secure required materials through electronic databases, interlibrary loans, government archives, new services and other sources. |
| | #16 | Throughout the duration of the course/program, students have access to appropriate technical assistance and technical support staff. |
| #17 | 75% | Student support personnel are available to address student questions, problems, bug reporting, and complaints. |

Table 16 continues

| Original IHEP Quality Indicator | Level of Consensus for Revision | Newly Revised Indicator |
|---|---|---|
| #18 and #19 were combined | 70% | Combined. Technical assistance in course development and assistance with the transition to teaching online is provided |
| #20 | 71.9% | Instructors are prepared to teach distance education courses and the institution ensures faculty receive training, assistance and support at all times during the development and delivery of courses. |
| #21 | 77.4% | Faculty receive training and materials related to Fair Use, plagiarism, and other relevant legal and ethical concepts. |
| #23 | 87.1% | A variety of data (academic and administrative information) are used to regularly and frequently evaluate program effectiveness and to guide changes toward continual improvement. |
| #24 | 71% | Intended learning outcomes at the course and program level are reviewed regularly to ensure clarity, utility, and appropriateness. |

*Additional quality indicators suggested by the panel of experts*. Fourteen of the 73 potential quality indicators suggested by the panel of experts in Delphi Round I achieved consensus in Delphi Round III. Table 17 presents all 73 of the suggested indicators and results after Delphi Round III. Of the 73 suggested indicators, 14 indicators achieved consensus and 11 indicators were retired in Delphi Round I, 13 indicators achieved consensus in Delphi Round III, and 31 indicators increased in their mean scores and were returned to the expert panel for a re-vote in Delphi Round IV. Four indicators decreased in consensus and therefore were retired.

After the completed data analysis in Delphi Round III, the Delphi Round IV survey (Appendix X) was developed, the Institutional Review Board granted approval (Appendix W) and the Delphi study proceeded with the next round.

Table 17

*Additional Quality Indicator Results After Delphi Round III*

| | Category | Round II Result | Selected by % of Panel in Round II | Round III Result | Resulting Action |
|---|---|---|---|---|---|
| Institutional Support | | | | | |
| 1. | Appropriate policies are developed, reviewed, and disseminated to all stakeholders. (moved to Technology Support for Round IV) | M = 3.84 | 84% | M = 3.91 | Increased, Returned for Re-vote |
| 2. | Faculty, staff, and students are supported in the development and use of new technologies and skills. (moved to Technology Support for Round IV) | M = 3.74 | 79% | M = 3.75 | Increased, Returned for Re-vote |
| 3. | The course delivery technology is considered a mission critical enterprise system and supported as such. (moved to Technology Support for Round IV) | M = 3.89 | 84% | M = 4.35 | Consensus Round III, moved to Technology Support |
| 4. | The institution provides documented processes and procedures that enable distance learning. | M = 3.19 | 65% | Retired before Round III | -- |
| 5. | Underlying learning managements systems are flexible enough to support emerging technologies, e.g. social networking tools, mobile devices, Web 2.0, etc. | M = 3.65 | 84% | M = 3.35 | Decreased, Retired |
| 6. | Institution maintains system for backup for data availability. (moved to Technology Support) | M = 4.03 | 90% | Consensus Round II | -- |
| 7. | Institutions must provide guidance to faculty and students on use of unsupported technologies. | M = 3.19 | 65% | Retired before Round III | -- |
| 8. | The institution makes bookstore services available to students. | M = 3.39 | 72% | M = 3.55 | Increased, Returned for Re-vote |

Table 17 continues

| | Category | Round II Result | Selected by % of Panel in Round II | Round III Result | Resulting Action |
|---|---|---|---|---|---|
| Institutional Support (cont'd) | | | | | |
| 9. | The institution has defined the strategic value of distance learning to its enterprise and to its relevant parts. | M = 3.59 | 76% | M = 3.87 | Increased, Returned for Re-vote |
| 10. | The tech plan also needs to consider and address vended relationships and, especially, support via cloud computing. It needs to ensure end to end operability of all systems that support distance learning. Also, "security measures" are generally handled for all campus enterprise systems through an LDAP server which authenticates users. | M = 3.05 | 62% | Retired before Round III | -- |
| 11. | The institution has put in place a governance structure to enable effective and comprehensive decision making related to distance learning. | M = 4.11 | 92% | Consensus Round II | -- |
| 12. | Policies are in place to authenticate that students enrolled in online courses, and receiving college credit are indeed those completing the course work | M = 4.11 | 95% | Consensus Round II | -- |
| 13. | Sustainability and Scalability: A stable support mechanism/financial model to reduce recreating the same course multiple times for example if an instructor leaves the university and there is no agreement governing the intellectual property that would allow the continued use of the course materials. | M = 3.66 | 82% | M = 3.29 | Decreased, Retired |
| 14. | Students ensured all they need for degree is offered in program before enrolling, | -- | -- | M = 3.52 | Increased, Returned for Re-vote |

Table 17 continues

| | Category | Round II Result | Selected by % of Panel in Round II | Round III Result | Resulting Action |
|---|---|---|---|---|---|
| Course Development | | | | | |
| 1. | Current and emerging technologies are evaluated and recommended for online teaching and learning. | M = 3.87 | 92% | M = 3.91 | Increased, Returned for Re-vote |
| 2. | There is consistency in course development for student retention and quality | M = 4.11 | 95% | Consensus Round II | -- |
| 3. | Instructional design is provided for creation of effective pedagogy for synchronous sessions. | M = 3.55 | 79% | Retired before Round III, Duplicate | -- |
| 4. | Policy for Copyright ownerships of course materials exists. | M = 4.16 | 95% | Consensus Round II | -- |
| 5. | Curriculum development is a core responsibility for faculty. | M = 3.32 | 74% | M = 3.45 | Increased, Returned for Re-vote |
| 6. | Learning objectives describe outcomes that are measurable. | M = 3.82 | 79% | M = 4.32 | Consensus Round III |
| 7. | Development of online course materials takes into account the changing context of media delivery | M = 3.55 | 84% | M = 3.75 | Increased, Returned for Re-vote |
| 8. | Selected assessments measure the course learning objectives and are appropriate for an online learning environment | M = 3.92 | 84% | M = 4.32 | Consensus Round III |
| 9. | Course objectives provide opportunity for student interaction. | M = 3.84 | 78% | M = 3.77 | Decreased, Retired |
| 10. | Course design promotes both faculty and student engagement. | M = 4.16 | 86% | Consensus Round II | -- |
| 11. | Student-centered instruction is considered during the course-development process. | M = 4.03 | 92% | Consensus Round II | -- |
| 12. | Instructional design is provided for creation of effective pedagogy for both synchronous and asynchronous class sessions. | M = 3.84 | 84% | M = 3.84 | Increased, Returned for Re-vote |

Table 17 continues

| Category | Round II Result | Selected by % of Panel in Round II | Round III Result | Resulting Action |
|---|---|---|---|---|
| Teaching And Learning | | | | |
| 1. Students are provided access to library professionals and resources that help them to deal with the overwhelming amount of online resources. | M = 3.39 | 79% | M = 3.58 | Increased, Returned for Re-vote |
| 2. Course material presented in a variety of ways | M = 3.42 | 82% | M = 3.52 | Increased, Returned for Re-vote |
| 3. Interactive elements such as video and flash graphics to help engage the students' understanding of key learning objectives | M = 3.30 | 76% | M = 3.42 | Increased, Returned for Re-vote |
| 4. Students are provided access to library professionals and resources that help them to deal with the overwhelming amount of online resources. | M = 3.11 | 71% | Retired before Round III | -- |
| 5. Online courses/programs use one course management platform, creating a single delivery model, and students receive an online instructional orientation to the course management platform. | M = 3.66 | 79% | M = 3.81 | Increased, Returned for Re-vote |
| Course Structure | | | | |
| 1. Students ensured all they need for degree is offered in program before enrolling | M = 3.45 | 76% | Moved to Institutional Support | -- |
| 2. Opportunities/tools provided to encourage student-student collaboration (i.e., web conferencing, instant messaging, etc). | M = 3.50 | 76% | M = 3.81 | Increased, Returned for Re-vote |
| 3. Honor code used to enable a culture of accountability | M = 3.39 | 76% | M = 3.19 | Decreased Retired |

Table 17 continues

| Category | Round II Result | Selected by % of Panel in Round II | Round III Result | Resulting Action |
|---|---|---|---|---|
| Course Structure (cont'd) | | | | |
| 4. Links or explanations of technical support are available in the course. | M = 3.95 | 87% | M = 4.29 | Consensus Round III |
| 5. Instructional materials are easily accessible and usable for the student. | M = 4.26 | 89% | Consensus Round II | -- |
| 6. The course adequately addresses the special needs of disabled students via alternative instructional strategies and/or referral to special institutional resources. | M = 4.29 | 95% | Consensus Round II | -- |
| 7. Optional synchronous sessions with faculty are offered and archived to be available asynchronously as well, to allow students access to faculty | M = 3.11 | 68% | Retired before Round III | -- |
| Student Support | | | | |
| 1. Students are provided relevant information: ISBN numbers, suppliers, etc. and delivery modes for all required instructional materials: digital format, e-packs, print format, etc. to ensure easy access. | M = 3.50 | 76% | M = 3.94 | Increased, Returned for Re-vote |
| 2. Students should be provided a way to interact with other students in an online community. | M = 3.61 | 79% | M = 3.94 | Increased, Returned for Re-vote |
| 3. While technologies may not be supported centrally (like available in the cloud or openly), there needs to guidance on how these tools will be supported and the ramifications to students. | M = 3.05 | 71% | M = 3.35 | Increased, Returned for Re-vote |
| 4. Student support services are provided for outside the classroom such as academic advising, financial assistance, peer support, etc | M = 4.05 | 89% | Consensus Round II | -- |

Table 17 continues

| Category | Round II Result | Selected by % of Panel in Round II | Round III Result | Resulting Action |
|---|---|---|---|---|
| Student Support (cont'd) | | | | |
| 5. Program demonstrates a student-centered focus rather than trying to fit service to the distance education student in on-campus student services. | M = 3.79 | 79% | M = 3.81 | Increased, Returned for Re-vote |
| 6. Automated support tools are available for faculty to provide early intervention to support student success. | M = 3.51 | 81% | M = 3.55 | Increased, Returned for Re-vote |
| 7. Efforts are made to engage students with the program & institution | M = 3.58 | 79% | M = 3.84 | Increased, Returned for Re-vote |
| 8. Students are instructed in the appropriate ways of communicating with faculty and students | M = 3.68 | 82% | M = 3.87 | Increased, Returned for Re-vote |
| 9. Students are instructed in the appropriate ways of enlisting help from the program (this suggestion was accidentally missed and included in Delphi Round V-Support services are designed to build communication and affiliation among the online student population) | M = 3.50 | 74% | M = 3.71 | Increased, Returned for Re-vote |
| 10. Students agree and understand the expectations of the program and courses | M = 3.66 | 79% | M = 3.90 | Increased, Returned for Re-vote |
| 11. Students should be provided a way to interact with other students in an online community | M = 3.42 | 74% | Retired before Round III | -- |
| 12. The institution provides guidance to both students and faculty in the use of all forms of technologies used for course delivery | M = 3.44 | 71% | M = 3.77 | Increased, Returned for Re-vote |
| 13. Students have access to effective academic, personal, and career counseling | M = 3.82 | 87% | M = 4.19 | Consensus Round III |

Table 17 continues

| Category | Round II Result | Selected by % of Panel in Round II | Round III Result | Resulting Action |
|---|---|---|---|---|
| Student Support (cont'd) | | | | |
| 14. Tutoring is available as a learning resource. | M = 3.89 | 92% | M = 3.94 | Increased, Returned for Re-vote |
| 15. Minimum technology standards are established and made available to students. | M = 3.97 | 82% | M = 4.13 | Consensus Round III |
| 16. Policy and process is in place to support ADA requirements. | M = 4.16 | 87% | Consensus Round II | -- |
| Faculty Support | | | | |
| 1. New learning skills for online teaching and learning are identified. | M = 3.30 | 76% | M = 3.50 | Increased, Returned for Re-vote |
| 2. Review of web.2.0 tools and emerging technologies and faculty. | M = 3.14 | 73% | M = 3.35 | Increased, Returned for Re-vote |
| 3. Workshops are provided for keeping faculty updated in selection and use of tools. | M = 3.57 | 81% | Retired before Round III | -- |
| 4. Faculty are provided on-going professional development related to online teaching and learning. | M = 4.16 | 87% | Consensus Round II | -- |
| 5. Faculty workshops are provided to make them aware of emerging technologies and the selection and use of these tools. | M = 3.50 | 76% | M = 3.77 | Increased, Returned for Re-vote |
| 6. Clear standards are established for faculty engagement and expectations around online teaching | M = 4.05 | 84% | Consensus Round II | -- |

Table 17 continues

| Category | Round II Result | Selected by % of Panel in Round II | Round III Result | Resulting Action |
|---|---|---|---|---|
| Evaluation And Assessment | | | | |
| 1. Online learning should be robustly evaluated using tools widely available, so that faculty and students know what students perceive about the efficacy of online learning and so the institution knows how they compare and how they can improve. | M = 3.42 | 71% | M = 3.55 | Increased, Returned for Re-vote |
| 2. A process is in place for the assessment of faculty and student support services. | M = 3.97 | 87% | M = 4.26 | Consensus Round III |
| 3. Course and program retention is assessed. Results of course evaluations are used as part of faculty/instructor performance evaluations. | M = 3.84 | 84% | M = 4.19 | Consensus Round III |
| 4. Recruitment and retention are examined and reviewed | M = 3.55 | 76% | M = 4.06 | Consensus Round III |
| 5. Evaluation should include evaluation by potential employers. | M = 2.76 | 55% | Retired before Round III | -- |
| 6. Course evaluations collect student feedback on quality of content and effectiveness of instruction. | M = 4.03 | 89% | Consensus Round II | -- |
| 7. The relationship between online education programs and institutional mission must be included as a measure. | M = 3.32 | 71% | M = 3.48 | Increased, Returned for Re-vote |
| 8. Program demonstrates compliance and review of accessibility standards (Section 508, etc.). | M = 3.82 | 84% | M = 4.29 | Consensus Round III |
| 9. Student evaluations of course/instructor/program are made available. | M = 3.43 | 70% | M = 3.86 | Increase, Returned for Re-vote |
| 10. Course evaluations are examined in relation to faculty performance evaluations. | M = 3.68 | 82% | M = 4.00 | Consensus Round III |

Table 17 continues

| Category | Round II Result | Selected by % of Panel in Round II | Round III Result | Resulting Action |
|---|---|---|---|---|
| Evaluation And Assessment (cont'd) | | | | |
| 11. Aggregation of data to ensure each class is being taught well. | M = 3.21 | 66% | Retired before Round III | -- |
| 12. Faculty performance is regularly assessed. | M = 3.84 | 79% | M = 4.39 | Consensus Round III |
| 13. Alignment of learning outcomes from course to course exists. | M = 3.63 | 79% | M = 4.26 | Consensus Round III |
| 14. Online learning should be robustly evaluated using tools widely available, so that faculty and students know what students perceive about the efficacy of online learning and so the institution knows how they compare and how they can improve. The credentials of the distance education support staff and administration, in terms of years of professional experience and education level as well as type of degree earned (educational technology or general education verses non-education). | M = 2.84 | 57% | Retired before Round III | -- |

**Delphi Round IV.** On May 21, 2010, for Delphi Round IV, email invitations (Appendix Y) were sent to 33 experts in the administration of online education programs who agreed to be a panel member for the study and had completed the survey in Round III. The Delphi Round IV survey instrument (Appendix X) consisted of a total of 16 questions:

> Questions #1 - #7, structured questions, determined which of the suggested revisions if any, should be used for the remaining of the 24 IHEP quality indicators not decided in Delphi Round III (#3, #4, #5, #7, #8, #11, #22). The suggested revisions in Delphi Round III with 70% or more of the panel rating them Slightly Relevant, Relevant or Definitely Relevant were fed back to the expert panel for consensus.

Questions #8 - #15, structured questions using the five-point Likert-scale (1 = Definitely Not Relevant, 2 = Not Relevant, 3 = Slightly Relevant, 4 = Relevant, 5 = Definitely Relevant), presented the additional quality indicators that did not receive consensus in Delphi Round III. Only those indicators that increased in consensus in Delphi Round III were presented for another vote. If a mean of 4.0 or above was not achieved in this round, the indicator was not included in the scorecard or returned to the panel for re-voting.

Question #16, an open-ended question, solicited the members of the expert panel to suggest potential scoring methods for the quality scorecard.

On May 26, 2010, 18 of the 33 total panel members who had yet to participate were reminded with an email that the Round IV survey would close on June 3rd. One of the panel members requested an additional email, which provided their web link to the survey. A second email reminder (Appendix AA) was sent on May 30, 2010 to 11 panel members. A final reminder email (Appendix BB) was sent on June 2, 2010 to eight panel members who had not yet responded. The survey closed on June 3, 2010 with three panel members never having responded who were then removed from the study. A total of 30 expert panel members completed the survey in Round IV.

***Delphi Round IV data analysis and results***. Delphi Round IV addressed the remaining seven IHEP indicators that the panel had yet to reach consensus on, the suggested indicators remaining without consensus, and invited the panel to suggest their ideas for potential methods for scoring the quality scorecard. Survey results may be found in Appendix CC.

*IHEP indicators*. Delphi Round IV presented the seven remaining original IHEP quality indicators (#3, #4, #5, #7, #8, #11, and #22). Each of the remaining seven indicators achieved consensus with either a revision to the statement or it was left in its original form. Table 18 reports the results for each of the remaining revisions to the original IHEP indicators.

Table 18

*Delphi Round IV-Revisions to IHEP Indicator*

| Original IHEP Indicator | Level of Consensus | New or Unchanged Indicator |
|---|---|---|
| #3 (remained unchanged) | 82.8% | A centralized system provides support for building and maintaining the distance education infrastructure. (Delphi Round IV approval) (original IHEP standard without changes) |
| #4 (divided into two) | 89.7% | Guidelines regarding minimum standards are used for course development, design, and delivery of online instruction.<br>Technology is used as a tool to achieve learning outcomes in delivering course content. |
| #5 | 86.2 | Instructional materials, course syllabus and learning outcomes are reviewed periodically to ensure they meet program standards. |
| #7 | 89.3% | Student-to-Student interaction and Faculty-to-Student interaction are essential characteristics and are facilitated through a variety of ways. |
| #8 | 75.9% | Feedback on student assignments and questions is constructive and provided in a timely manner. |
| #11 | 89.7% | The online course site includes a syllabus outlining course objectives, learning outcomes, evaluation methods, textbook information, and other related course information, making course requirements transparent at time of registration. |
| #22 | 96.6% | The program is assessed through an evaluation process that applies specific established standards. |

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

reached consensus with 89.7%. However, the revision suggested by the panel was to divide the original indicator into two separate indicators: *Guidelines regarding minimum standards are used for course development, design, and delivery of online instruction* and *Technology is used as a tool to achieve learning outcomes in delivering course content*. The context of the original indicator remained the same in context with there being a need for course development guidelines and that learning outcomes should drive the course development process, not technology.

*Additional quality indicators suggested by the panel of experts*. Of the 31 suggested quality indicators returned to the panel of experts in Delphi Round IV, 17 achieved consensus and were moved to the quality scorecard. Fourteen suggested indicators did not reach consensus and were retired. With these final results, the scorecard has an additional 45 indicators along with the revised versions of the original IHEP indicators. Table 19 reports the results (Mean, consensus or retirement decision) for each indicator that was originally suggested by the panel of experts.

*Method of scoring for the scorecard*. Delphi Round IV invited the panel of experts to suggest potential methods for scoring the quality scorecard. Fifteen of the 30 panel members suggested a total of eight possible methods, listed in Table 20 as Methods A, B, C, D, E, F, G, and H. The most popular suggestion, Method C, which received votes from five panel members, was to allow ten points for each category of quality indicators, thereby making the scorecard worth a total of 90 points. Four panel members suggested that each quality indicator should be worth one point each (Method A) thereby making the total scorecard worth 68 points. Six additional methods were suggested by six

Table 19

*Suggested Quality Indicator Results in Delphi Round IV*

| Category | Round III Result | Resulting Action | Round IV Result | Resulting Action |
|---|---|---|---|---|
| Institutional Support | | | | |
| 1. The institution provides documented processes and procedures that enable distance learning. | Retired before Round III | -- | -- | -- |
| 2. Underlying learning managements systems are flexible enough to support emerging technologies, e.g. social networking tools, mobile devices, Web 2.0, etc. | M = 3.35 | Decreased, Retired | -- | -- |
| 3. Institutions must provide guidance to faculty and students on use of unsupported technologies. | Retired before Round III | -- | -- | -- |
| 4. The institution makes bookstore services available to students. | M = 3.55 | Increased, Returned for Re-vote | M = 3.62 | Did not reach consensus, Retired |
| 5. The institution has defined the strategic value of distance learning to its enterprise and to its relevant parts. | M = 3.87 | Increased, Returned for Re-vote | M = 4.03 | Consensus Round IV |
| 6. The tech plan also needs to consider and address vended relationships and, especially, support via cloud computing. It needs to ensure end to end operability of all systems that support distance learning. Also, "security measures" are generally handled for all campus enterprise systems through an LDAP server which authenticates users. | Retired before Round III | -- | -- | -- |
| 7. The institution has put in place a governance structure to enable effective and comprehensive decision making related to distance learning. | Consensus Round II | -- | -- | -- |

Table 19 continues

| Category | Round III Result | Resulting Action | Round IV Result | Resulting Action |
|---|---|---|---|---|
| Institutional Support (cont'd) | | | | |
| 8. Policies are in place to authenticate that students enrolled in online courses, and receiving college credit are indeed those completing the course work | Consensus Round II | -- | -- | -- |
| 9. Sustainability and Scalability: A stable support mechanism/financial model to reduce recreating the same course multiple times for example if an instructor leaves the university and there is no agreement governing the intellectual property that would allow the continued use of the course materials. | M = 3.29 | Decreased, Retired | -- | -- |
| 10. Students ensured all they need for degree is offered in program before enrolling, | M = 3.52 | Increased, Returned for Re-vote | M = 3.90 | Did not reach consensus, Retired |
| Technology Support | | | | |
| 1. Appropriate policies are developed, reviewed, and disseminated to all stakeholders. (moved to Technology Support for Round IV) | M = 3.91 | Increased, Returned for Re-vote | M = 3.99 | Did not reach consensus, Retired |
| 2. The course delivery technology is considered a mission critical enterprise system and supported as such. (moved to Technology Support for Round IV) | M = 4.35 | Consensus Round III | -- | -- |
| 3. Institution maintains system for backup for data availability. (moved to Technology Support) | Consensus Round II | -- | -- | -- |
| 4. Faculty, staff, and students are supported in the development and use of new technologies and skills. (moved to Technology Support for Round IV) | M = 3.75 | Increased, Returned for Re-vote | M = 4.15 | Consensus Round IV |

Table 19 continues

| Category | | Round III Result | Resulting Action | Round IV Result | Resulting Action |
|---|---|---|---|---|---|
| Course Development | | | | | |
| 1. | Current and emerging technologies are evaluated and recommended for online teaching and learning. | M = 3.91 | Increased, Returned for Re-vote | M = 4.10 | Consensus Round IV |
| 2. | There is consistency in course development for student retention and quality | Consensus Round II | -- | -- | -- |
| 3. | Instructional design is provided for creation of effective pedagogy for synchronous sessions. | Retired before Round III, Duplicate | -- | -- | -- |
| 4. | Policy for Copyright ownerships of course materials exists. | Consensus Round II | -- | -- | -- |
| 5. | Curriculum development is a core responsibility for faculty. | M = 3.45 | Increased, Returned for Re-vote | M = 4.03 | Consensus Round IV |
| 6. | Learning objectives describe outcomes that are measurable. | M = 4.32 | Consensus Round III | -- | -- |
| 7. | Development of online course materials takes into account the changing context of media delivery | M = 3.75 | Increased, Returned for Re-vote | M = 3.93 | Consensus Round IV |
| 8. | Selected assessments measure the course learning objectives and are appropriate for an online learning environment | M = 4.32 | Consensus Round III | -- | -- |
| 9. | Course objectives provide opportunity for student interaction. | M = 3.77 | Decreased, Retired | -- | -- |
| 10. | Course design promotes both faculty and student engagement. | Consensus Round II | -- | -- | -- |
| 11. | Student-centered instruction is considered during the course-development process. | Consensus Round II | -- | -- | -- |
| 12. | Instructional design is provided for creation of effective pedagogy for both synchronous and asynchronous class sessions. | M = 3.84 | Increased, Returned for Re-vote | M = 4.24 | Consensus Round IV |

Table 19 continues

| Category | Round III Result | Resulting Action | Round IV Result | Resulting Action |
|---|---|---|---|---|
| Teaching And Learning | | | | |
| 1. Students are provided access to library professionals and resources that help them to deal with the overwhelming amount of online resources. | M = 3.58 | Increased, Returned for Re-vote | M = 4.00 | Consensus Round IV |
| 2. Course material presented in a variety of ways | M = 3.52 | Increased, Returned for Re-vote | M = 3.82 | Did not reach consensus, Retired |
| 3. Interactive elements such as video and flash graphics to help engage the students' understanding of key learning objectives | M = 3.42 | Increased, Returned for Re-vote | M = 3.46 | Did not reach consensus, Retired |
| 4. Students are provided access to library professionals and resources that help them to deal with the overwhelming amount of online resources. | Retired before Round III | -- | -- | -- |
| 5. Online courses/programs use one course management platform, creating a single delivery model, and students receive an online instructional orientation to the course management platform. | M = 3.81 | Increased, Returned for Re-vote | M = 3.86 | Did not reach consensus, Retired |
| Course Structure | | | | |
| 1. Students ensured all they need for degree is offered in program before enrolling | Moved to Institutional Support | -- | -- | -- |
| 2. Opportunities/tools provided to encourage student-student collaboration (i.e., web conferencing, instant messaging, etc). | M = 3.81 | Increased, Returned for Re-vote | M = 4.14 | Consensus Round IV |
| 3. Honor code used to enable a culture of accountability | M = 3.19 | Decreased, Retired | -- | -- |
| 4. Links or explanations of technical support are available in the course. | M = 4.29 | Consensus Round III | -- | -- |

Table 19 continues

| Category | Round III Result | Resulting Action | Round IV Result | Resulting Action |
|---|---|---|---|---|
| Course Structure (cont'd) | | | | |
| 5. Instructional materials are easily accessible and usable for the student. | Consensus Round II | -- | -- | -- |
| 6. The course adequately addresses the special needs of disabled students via alternative instructional strategies and/or referral to special institutional resources. | Consensus Round II | -- | -- | -- |
| 7. Optional synchronous sessions with faculty are offered and archived to be available asynchronously as well, to allow students access to faculty | Retired before Round III | -- | -- | -- |
| Student Support | | | | |
| 1. Students are provided relevant information: ISBN numbers, suppliers, etc. and delivery modes for all required instructional materials: digital format, e-packs, print format, etc. to ensure easy access. | M = 3.94 | Increased, Returned for Re-vote | M = 4.14 | Consensus Round IV |
| 2. Students should be provided a way to interact with other students in an online community. | M = 3.94 | Increased, Returned for Re-vote | M = 4.07 | Consensus Round IV |
| 3. While technologies may not be supported centrally (like available in the cloud or openly), there needs to guidance on how these tools will be supported and the ramifications to students. | M = 3.35 | Increased, Returned for Re-vote | M = 3.31 | Did not reach consensus, Retired |
| 4. Student support services are provided for outside the classroom such as academic advising, financial assistance, peer support, etc | Consensus Round II | -- | -- | -- |
| 5. Program demonstrates a student-centered focus rather than trying to fit service to the distance education student in on-campus student services. | M = 3.81 | Increased, Returned for Re-vote | M = 4.07 | Consensus Round IV |

Table 19 continues

| Category | Round III Result | Resulting Action | Round IV Result | Resulting Action |
|---|---|---|---|---|
| Student Support (cont'd) | | | | |
| 6. Automated support tools are available for faculty to provide early intervention to support student success. | M = 3.55 | Increased, Returned for Re-vote | M = 3.69 | Did not reach consensus, Retired |
| 7. Efforts are made to engage students with the program & institution | M = 3.84 | Increased, Returned for Re-vote | M = 4.07 | Consensus Round IV |
| 8. Students are instructed in the appropriate ways of communicating with faculty and students | M = 3.87 | Increased, Returned for Re-vote | M = 4.21 | Consensus Round IV |
| 9. Students are instructed in the appropriate ways of enlisting help from the program (the latter part of this suggestion was missed by the researcher and included in Delphi Round V- *Support services are designed to build communication and affiliation among the online student population*) | M = 3.71 | Increased, Returned for Re-vote | M = 4.11 | Consensus Round IV |
| 10. Students agree and understand the expectations of the program and courses | M = 3.90 | Increased, Returned for Re-vote | M = 3.97 | Did not reach consensus, Retired |
| 11. Students should be provided a way to interact with other students in an online community | Retired before Round III | -- | -- | -- |
| 12. The institution provides guidance to both students and faculty in the use of all forms of technologies used for course delivery | M = 3.77 | Increased, Returned for Re-vote | M = 4.21 | Consensus Round IV |
| 13. Students have access to effective academic, personal, and career counseling | M = 4.19 | Consensus Round III | -- | -- |
| 14. Tutoring is available as a learning resource. | M = 3.94 | Increased, Returned for Re-vote | M = 4.07 | Consensus Round IV |

Table 19 continues

| Institutional Support | Round III Result | Resulting Action | Round IV Result | Resulting Action |
|---|---|---|---|---|
| Student Support (cont'd) | | | | |
| 15. Minimum technology standards are established and made available to students. | M = 4.13 | Consensus Round III | -- | -- |
| 16. Policy and process is in place to support ADA requirements. | Consensus Round II | -- | -- | -- |
| Faculty Support | | | | |
| 1. New learning skills for online teaching and learning are identified. | M = 3.50 | Increased, Returned for Re-vote | M = 3.62 | Did not reach consensus, Retired |
| 2. Review of web.2.0 tools and emerging technologies and faculty. | M = 3.35 | Increased, Returned for Re-vote | M = 3.31 | Did not reach consensus, Retired |
| 3. Workshops are provided for keeping faculty updated in selection and use of tools. | Retired before Round III | -- | -- | -- |
| 4. Faculty are provided on-going professional development related to online teaching and learning. | Consensus Round II | -- | -- | -- |
| 5. Faculty workshops are provided to make them aware of emerging technologies and the selection and use of these tools. | M = 3.77 | Increased, Returned for Re-vote | M = 4.03 | Consensus Round IV |
| 6. Clear standards are established for faculty engagement and expectations around online teaching | Consensus Round II | -- | -- | -- |
| Evaluation and Assessment | | | | |
| 1. Online learning should be robustly evaluated using tools widely available, so that faculty and students know what students perceive about the efficacy of online learning and so the institution knows how they compare and how they can improve. | M = 3.55 | Increased, Returned for Re-vote | M = 3.71 | Did not reach consensus, Retired |

Table 19 continues

| Category | Round III Result | Resulting Action | Round IV Result | Resulting Action |
|---|---|---|---|---|
| Evaluation and Assessment (cont'd) | | | | |
| 2. A process is in place for the assessment of faculty and student support services. | M = 4.26 | Consensus Round III | -- | -- |
| 3. Course and program retention is assessed. Results of course evaluations are used as part of faculty/instructor performance evaluations. | M = 4.19 | Consensus Round III | -- | -- |
| 4. Recruitment and retention are examined and reviewed | M = 4.06 | Consensus Round III | -- | -- |
| 5. Evaluation should include evaluation by potential employers. | Retired before Round III | -- | -- | -- |
| 6. Course evaluations collect student feedback on quality of content and effectiveness of instruction. | Consensus Round II | -- | -- | -- |
| 7. The relationship between online education programs and institutional mission must be included as a measure. | M = 3.48 | Increased, Returned for Re-vote | M = 3.41 | Did not reach consensus, Retired |
| 8. Program demonstrates compliance and review of accessibility standards (Section 508, etc.). | M = 4.29 | Consensus Round III | -- | -- |
| 9. Student evaluations of course/instructor/program are made available. | M = 3.86 | Increase, Returned for Re-vote | M = 3.86 | Did not reach consensus, Retired |
| 10. Course evaluations are examined in relation to faculty performance evaluations. | M = 4.00 | Consensus Round III | -- | -- |
| 11. Aggregation of data to ensure each class is being taught well. | Retired before Round III | -- | -- | -- |
| 12. Faculty performance is regularly assessed. | M = 4.39 | Consensus Round III | -- | -- |

Table 19 continues

| Category | Round III Result | Resulting Action | Round IV Result | Resulting Action |
|---|---|---|---|---|
| Evaluation and Assessment (cont'd) | | | | |
| 13. Alignment of learning outcomes from course to course exists. | M = 4.26 | Consensus Round III | -- | -- |
| 14. Online learning should be robustly evaluated using tools widely available, so that faculty and students know what students perceive about the efficacy of online learning and so the institution knows how they compare and how they can improve. The credentials of the distance education support staff and administration, in terms of years of professional experience and education level as well as type of degree earned (educational technology or general education verses non-education). | Retired before Round III | -- | -- | -- |

panel members shown in Table 20, which includes the frequency of each potential scoring method.

Each method of scoring was presented to the panel of experts for rating in Delphi Round V and sample scorecards were developed so the panel could have a better grasp of the result. These examples are included in Appendix DD-KK. After the Delphi Round V survey (Appendix MM) was developed, the Institutional Review Board granted approval (Appendix LL) and the next Delphi round began.

**Delphi Round V.** On June 7, 2010, for Delphi Round V, email invitations (Appendix NN) were sent to 30 experts in the administration of online education programs who agreed to be a panel member for the study and had completed the survey

Table 20

*Frequency of Suggested Quality Scorecard Scoring Methods*

| Suggested Scoring Method | Frequency |
|---|---|
| A. One point per quality indicator | 4 |
| B. Five points per quality indicator | 1 |
| C. Each category equals a total of 10 points | 5 |
| D. Each category equals one point for each | 1 |
| E. Each indicator equals one point but has 3 possible options: Does not meet standard (0 points). Partly meets standard (.5 point). Meets or exceeds standard completely (1 point). Quality programs must achieve 85% of possible points | 1 |
| F. Each indicator has 3 possible points (0 - not observed, 1 - insufficient, 2 - moderate use, 3 - completely meets criteria), then each area must have a certain percentage of the points to consider itself worthy of meeting the goals of that area | 1 |
| G. Each Indicator has 3 options: Below Acceptable Standards (0 points), Meets Expected Standards (1 point) and Exceeds Standards (2 points | 1 |
| H. A simple Likert scale with anchors to improve reliability | 1 |

in Round IV. The Delphi Round V survey instrument consisted of a total of three questions:

Question #1, a structured question using the five-point Likert-scale (1 = Definitely Not Relevant, 2 = Not Relevant, 3 = Slightly Relevant, 4 = Relevant, 5 = Definitely Relevant), addressed separating a pair of quality indicators (suggested by the panel of experts in Delphi Round I) that were erroneously combined in the previous rounds. Consensus must be achieved with 70% and a Mean of 4.0 or greater for either of the quality indicators to be included in the scorecard.

Question #2, a structured question, addressed the scorecard scoring methods suggested by members of the expert panel in Delphi Round IV. Because 70%

of the panel members did not agree upon one method of scoring for the scorecard, the data were fed back to the panel in Delphi Round VI. The scoring methods that had received 70% of the vote were represented in the final round, Delphi Round VI.

Question #3, a structured question, solicited a yes or no response from the panel to enlist members for a future research study that would continue to refine wording on the quality scorecard indicators.

Thirteen of the 30 total panel members had not yet participated and were reminded with an email prompt (Appendix OO) on June 11, 2010. One of the panel members requested an additional email that provided their web link to the survey. A final reminder email (Appendix PP) was sent June 14, 2010 to three members of the expert panel who had still not responded. The survey closed with two panel members never having responded who were then removed from the study. A total of 28 expert panel members completed the survey in Round V. The results of the survey were downloaded and analyzed for consensus. Since consensus was not reached for the scoring method, an additional Delphi round was needed to select a scoring method for the quality scorecard.

***Delphi Round V analysis and results.*** Delphi Round V was needed to determine what method of scoring the panel would choose to use for the quality scorecard. Additionally, it was discovered that one of the suggested quality indicators in the Student Support category that was previously approved in Delphi Round IV, was actually two individual indicators so both were fed back to the panel for a re-vote.

*Method of scoring for the scorecard*. Eight methods for scoring the quality scorecard were suggested by the panel of experts in Delphi Round IV (Methods A, B, C, D, E, F, G, and H). Not one of the scoring methods was agreed upon by 70% of the panel. The results of each scoring method, in order of popularity, are: Method C and F received six votes of from panel members, which equaled 21.4% of the vote, respectively;

Method E received five votes from panel members, which was 17.9% of the total vote; and Method A received four votes from panel members, which was 14.3% of the total vote. Methods A, C, E, and F received 75% of the total vote from panel members and were fed back to the panel of experts to gain consensus in Delphi Round VI. The following scoring methods were retired because they did not receive votes from 70% or more of the expert panel members: Methods G and H both received 3 votes, which were 10.3% of the panel vote; Method B received 1 vote, which was 3.6% of the panel vote; and Method D received 0 votes. Table 21 shows each of the scoring methods and Delphi Round V results. All results of Delphi Round V may be found in Appendix RR and the results of the scorecard after Round V in Appendix QQ.

After analyzing the Delphi Round IV results, the researcher found that one of the quality indicators in the Student Support category (*Students are instructed in the appropriate ways of enlisting help from the program Support services are designed to build communication and affiliation among the online student population*) suggested in Delphi Round I, was presented to the panel of experts as a single indicator when in fact, it was to have been two separate indicators. As a single quality indicator, consensus was achieved with Mean = 4.11 after Delphi Round IV. The indicator was divided into two as was originally intended and the panel of experts determined that the first part of the indicator was relevant, with Mean = 4.33. The new indicator, *Students are instructed in the appropriate ways of enlisting help from the program*, was moved to the scorecard. The second half of the indicator (*Support services are designed to build communication and affiliation among the online student population*) resulted in a Mean of 3.63 with only

Table 21

*Results of Suggested Scoring Methods of Delphi Round V*

| Suggested Scoring Method | Frequency of Suggestions in Round IV | Percent of Panel Votes in Round V | Frequency of Votes in Round V |
|---|---|---|---|
| A. One point per quality indicator | 4 | 14.3% | 4 |
| B. Five points per quality indicator | 1 | 3.6% | 1 (Retired) |
| C. Each category equals a total of 10 points | 5 | 21.4% | 6 |
| D. Each category equals one point for each | 1 | 0% | 0 (Retired) |
| E. Each indicator equals one point but has 3 possible options: Does not meet standard (0 points). Partly meets standard (.5 point). Meets or exceeds standard completely (1 point). Quality programs must achieve 85% of possible points | 1 | 17.9% | 5 |
| F. Each indicator has 3 possible points (0 - not observed, 1 - insufficient, 2 - moderate use, 3 - completely meets criteria), then each area must have a certain percentage of the points to consider itself worthy of meeting the goals of that area | 1 | 21.4% | 6 |
| G. Each Indicator has 3 options: Below Acceptable Standards (0 points), Meets Expected Standards (1 point) and Exceeds Standards (2 points) | 1 | 10.7% | 3 (Retired) |
| H. A simple Likert scale with anchors to improve reliability | 1 | 10.7% | 3 (Retired) |

55.5% of the panel voting it as relevant; therefore, it was retired and not moved to the scorecard.

In Delphi Round V, question #3 solicited a yes or no response from the panel to enlist members for a future research study that would continue to refine wording of the

quality scorecard indicators. Twenty-three of the 28 experts who completed Delphi Round V (82.1%) agreed to remain a part of a future study for possibly refining the quality scorecard for online education programs.

For disclosure, the researcher overlooked one of the results in Delphi Round III, where the panel of experts approved IHEP indicator #10 to be divided into two separate indicators. The researcher failed to disclose the division shown on the sample scorecards presented to the panel of experts to view before voting on each suggested scorecard in Delphi Round V so it was corrected before the Delphi Round VI survey released to the expert panel. Approval was granted for Delphi Round VI from the Institutional Review Board (Appendix SS) before the final survey round began.

**Delphi Round VI.** On June 21, 2010, for Delphi Round VI, email invitations (Appendix UU) were sent to 28 experts in the administration of online education programs who agreed to be a panel member for the study and had completed the survey in Round V. The Delphi Round VI survey instrument (Appendix TT) consisted of a total of one question and was open for one week only:

> Question #1, a structured question, presented four of the most popular scorecard scoring methods suggested by members of the expert panel in Delphi Round V. The choices receiving 70% of the panel vote for scoring methods in Delphi Round V were fed back to the panel in an attempt to gain final consensus (Methods A, C, E, F).
>
> Question #2, a structured question using the five-point Likert-scale (1 = Definitely Not Relevant, 2 = Not Relevant, 3 = Slightly Relevant, 4 = Relevant, 5 = Definitely Relevant), presented six additional quality indicators that were erroneously missed in the qualitative feedback results in Delphi Round II. The quality indicators needed to achieve 70% consensus and a Mean of 4.0 or greater to be included in the scorecard.

Seventeen of the 28 total panel members had not responded and were reminded with an email (Appendix VV) on June 24, 2010. A final reminder email (Appendix XX)

was sent on June 28, 2010 to five panel members who had not yet responded. The survey closed on June 28, 2010 at 5 P.M. Central Time. A total of 26 expert panel members completed the survey in Round VI. Consensus was reached on the method of scoring and two of the six quality indicators were deemed relevant and included in the quality scorecard. The quality scorecard after Delphi Round VI may be found in Appendix YY. A finalized version of the quality scorecard may be found in Appendix AAA.

***Method of Scoring for the Scorecard.*** Question #1 of Delphi Round VI presented the top four methods of scoring in an attempt to achieve panel member consensus on what method would be best used to score the quality scorecard as a result of this Delphi Study. Consensus was achieved with Method F, *Each Indicator has 3 possible points (0 - not observed, 1 - insufficient, 2 - moderate use, 3 - completely meets criteria), then each area must have a certain percentage of the points to consider itself worthy of meeting the goals of that area. A perfect score = 204 points,* receiving 73.1% of the total vote (19 of 26 expert panel members selected this method as the best for scoring a quality scorecard for online education programs). The perfect score of 204 points was based on a total of 68 approved quality indicators. Table 22 presents the results for each of the four methods presented to the panel of experts. Methods A, C, and E all decreased in vote as panel members change their minds on what they believed to be the best method, with Method F increasing by 51.7% of the panel vote.

Delphi Round VI also included six suggested quality indicators that were missed by the researcher in the Delphi Round II results. Table 23 shows that only two of the six indicators achieved consensus from the panel with means above 4.0 and 70% or more

Table 22

*Delphi Round VI Analysis and Results*

| The following possible methods for scoring the quality scorecard were suggested. | | | |
|---|---|---|---|
| Answer Options | Response Percent in Round V | Response Percent in Round VI | Increase or Decrease |
| A. One point per indicator = 68 total points for a perfect score Click here to view an example. This scoring method received 14.3% of the panel vote in round 5. | 14.3% | 7.7% | -6.6% |
| C. Each category equals 10 points = 90 total points for a perfect score. Click here to view an example. | 21.4% | 7.7% | -13.7% |
| E. Each indicator equals one point but has 3 possible options: Does not meet standard (0 points). Partly meets standard (.5 point). Meets or exceeds standard completely (1 point). Quality programs must achieve 85% of possible points. A perfect score=68 total points. | 17.9% | 11.5% | -6.4% |
| F. Each Indicator has 3 possible points (0 - not observed, 1 - insufficient, 2 - moderate use, 3 - completely meets criteria), then each area must have a certain percentage of the points to consider itself worthy of meeting the goals of that area. A perfect score=204 points. | 21.4% | 73.1% | +51.7% |

agreement level. The following indicators were added to the scorecard, which now had a total of 70 quality indicators after Delphi Round VI: *Instructors use specific strategies to create a presence in the course,* placed into the Teaching and Learning category and *Documents attached to modules are in a format that is easily accessed with multiple operating systems and productivity software (PDF, for example),* placed in the Course Structure category of quality indicators. The remaining four had lower consensus and

Table 23

*Delphi VI Results - Additional Suggested Indicators*

| Potential Quality Indicator Suggested in Delphi Round III | Mean | Level of Consensus |
|---|---|---|
| Each course includes an orientation module. | 3.64 | 68% |
| Instructors use specific strategies to create a presence in the course. | 4.12 | 76% |
| Students have at least some choice in their activities/assignments. | 2.92 | 24% |
| Course modules are designed for visual appeal as well as clarity and consistency (use of white space, color, well-chosen fonts, no gimmicky graphics/animations that have no real purpose. | 3.60 | 60% |
| Documents attached to modules are in a format that is easily accessed with multiple operating systems and productivity software (PDF, for example). | 4.32 | 88% |
| Institution branding is evident in every part of each course. | 3.08 | 42% |

because they were presented in context with 68 other indicators, the researcher believed the expert panel was able to make an evaluative decision; therefore, the remaining four were retired.

This round ended the survey and data collection process as a quality scorecard for the administration of online education programs was developed with 70 quality indicators and a scoring method of up to a possible three points per indicator, with a total score of 210 points. The version of the quality scorecard after Delphi Round VI may be found in Appendix YY.

***Results by research question.*** The data analysis resulted in data collection for each of the original research questions for the Delphi study. The results are presented by the corresponding research question.

*Question one*. Are the standards identified in the IHEP/NEA study in 2000 still relevant in 2010 for indicating quality in online education programs in higher education? The expert panel determined that 23 of the 24 indicators were still relevant today in 2010; however, 22 of the 23 were ultimately approved for the quality scorecard with revisions. Only one of the IHEP original standards was not determined relevant; however, the panel agreed upon a revised version of the standard to still be included in the quality scorecard. For each original IHEP standard, panel members provided revisions to improve relevancy. These suggestions were fed back to the expert panel in subsequent rounds to determine whether the original version should still be used as a quality indicator or were the suggested revisions more relevant. This resulted in only one of the 24 IHEP standards not being revised (IHEP #3), and one more that only had one word change (IHEP #8). The remaining 22 standards were slightly-to-moderately revised including two standards being divided into two additional standards. Table 24 presents the two indicators that were split into two additional indicators. IHEP #4 was only slightly changed with the second indicator focusing technology as a tool for achieving learning outcomes. IHEP #10 was moved from the Course Structure category to the Student Support category but only slightly changed aside from splitting into two indicators.

Table 25 presents the amount of revisions for each of the original IHEP indicators. The Delphi round in which each of the quality indicators achieved consensus is also provided.

All of the IHEP quality indicators achieved consensus in either Delphi Round III or Delphi Round IV, as shown in Table 25. All of the suggested revisions to the original IHEP indicators were returned to the Delphi Panel for one vote immediately following

Table 24

*IHEP Standards Divided into Additional Quality Indicators*

| Original IHEP Indicator (2000) | Revised Indicator (2010) |
|---|---|
| #4 Guidelines regarding minimum standards are used for course development, design, and delivery, while learning outcomes—not the availability of existing technology—determine the technology being used to deliver course content. | #4a. Guidelines regarding minimum standards are used for course development, design, and delivery of online instruction<br>#4b. Technology is used as a tool to achieve learning outcomes in delivering course content. |
| #10 Before starting an online program, students are advised about the program to determine (1) if they possess the self-motivation and commitment to learn at a distance and (2) if they have access to the minimal technology required by the course design. | #10a. (Was in the Course Structure category) Divided into two: 1) Before starting an online program, students are advised about the program to determine if they possess the self-motivation and commitment to learn at a distance.<br>#10b. Before starting an online program, students are advised about the program to determine if they have access to the minimal technology required by the course design. |

the round in which they were suggested. If consensus was not achieved, only those that were selected by 70% or more of the panel were returned back to the panel for a new vote.

Table 26 displays newly revised indicators that originated from the IHEP (2000) study and the resulting revision the panel determined relevant for today. The most significant revisions were to IHEP #11 and #22. For #11 (*Students are provided with supplemental course information that outlines course objectives, concepts, and ideas, and learning outcomes for each course are summarized in a clearly written, straightforward statement*), the panel of experts specified that all course information including the syllabus should be available to the student at the time of registration. For #22 (*Faculty*

Table 25

*Revisions to Each IHEP Quality Indicator (By Number)*

| Quality Indicator Determined by the IHEP (2000) Study | Revisions Suggested in: Delphi Round I | Revisions Suggested in: Delphi Round II | Suggested Revisions Eliminated After Delphi Round I | Suggested Revisions Returned: In Delphi Round III for Re-vote | Suggested Revisions Returned: In Delphi Round IV if needed | Delphi Round Approval |
|---|---|---|---|---|---|---|
| 1. A documented technology plan that includes electronic security measures (i.e., password protection, encryption, back-up systems) is in place and operational to ensure both quality standards and the integrity and validity of information. | 5 | 0 | 4 | 2 | --- | III |
| 2. The reliability of the technology delivery system is as failsafe as possible. | 4 | 0 | 2 | 2 + Original | --- | III |
| 3. A centralized system provides support for building and maintaining the distance education infrastructure. | 6 | 0 | 4 | 2 + Original | 2 | IV |
| 4. Guidelines regarding minimum standards are used for course development, design, and delivery, while learning outcomes—not the availability of existing technology—determine the technology being used to deliver course content. | 9 | 0 | 3 | 6 + Original | 2 | IV |

Table 25 continues

| Quality Indicator Determined by the IHEP (2000) Study | Revisions Suggested in: Delphi Round I | Revisions Suggested in: Delphi Round II | Suggested Revisions Eliminated After Delphi Round I | Suggested Revisions Returned: In Delphi Round III for Re-vote | Suggested Revisions Returned: In Delphi Round IV if needed | Delphi Round Approval |
|---|---|---|---|---|---|---|
| 5. Instructional materials are reviewed periodically to ensure they meet program standards. | 10 | 1 | 7 | 4 + Original | 2 | IV |
| 6. Courses are designed to require students to engage themselves in analysis, synthesis, and evaluation as part of their course and program requirements. | 5 | 1 | 3 | 3 + Original | --- | III |
| 7. Student interaction with faculty and other students is an essential characteristic and is facilitated through a variety of ways, including voice-mail and/or e-mail. | 10 | 0 | 7 | 4 | 2 | IV |
| 8. Feedback to student assignments and questions is constructive and provided in a timely manner. | 6 | 2 | 4 | 4 + Original | 2 | IV |
| 9. Students are instructed in the proper methods of effective research, including assessment of the validity of resources. | 6 | 0 | 3 | 3 + Original | --- | III |
| 10. Before starting an online program, students are advised about the program to determine (1) if they possess the self-motivation and commitment to learn at a distance and (2) if they have access to the minimal technology required by the course design. | 7 | 0 | 4 | 3 + Original | --- | III |

Table 25 continues

| Quality Indicator Determined by the IHEP (2000) Study | Revisions Suggested in: Delphi Round I | Revisions Suggested in: Delphi Round II | Suggested Revisions Eliminated After Delphi Round I | Suggested Revisions Returned: In Delphi Round III for Re-vote | Suggested Revisions Returned: In Delphi Round IV if needed | Delphi Round Approval |
|---|---|---|---|---|---|---|
| 11. Students are provided with supplemental course information that outlines course objectives, concepts, and ideas, and learning outcomes for each course are summarized in a clearly written, straightforward statement. | 11 | 0 | 6 | 4 + Original | 2 | IV |
| 12. Students have access to sufficient library resources that may include a "virtual library" accessible through the World Wide Web. | 12 | 0 | 7 | 5 + Original | --- | III |
| 13. Faculty and students agree upon expectations regarding times for student assignment completion and faculty response. | 13 | 0 | 8 | 6 | --- | III |
| 14. Students receive information about programs, including admission requirements, tuition and fees, books and supplies, technical and proctoring requirements, and student support services. | 5 | 0 | 3 | 3 | --- | III |

Table 25 continues

| Quality Indicator Determined by the IHEP (2000) Study | Revisions Suggested in: Delphi Round I | Revisions Suggested in: Delphi Round II | Suggested Revisions Eliminated After Delphi Round I | Suggested Revisions Returned: In Delphi Round III for Re-vote | Suggested Revisions Returned: In Delphi Round IV if needed | Delphi Round Approval |
|---|---|---|---|---|---|---|
| 15. Students are provided with hands-on training and information to aid them in securing material through electronic databases, interlibrary loans, government archives, news services, and other sources. | 13 | 0 | 10 | 6 | --- | III |
| 16. Throughout the duration of the course/program, students have access to technical assistance, including detailed instructions regarding the electronic media used, practice sessions prior to the beginning of the course, and convenient access to technical support staff. | 5 | 0 | 3 | 2 | --- | III |
| 17. Questions directed to student service personnel are answered accurately and quickly, with a structured system in place to address student complaints. | 2 | 1 | 1 | 2 + Original | --- | III |
| 18. Technical assistance in course development is available to faculty, who are encouraged to use it. | 7 | 1 | 3 | 5 + Original | --- | III |
| 19. Faculty members are assisted in the transition from classroom teaching to online instruction and are assessed during the process. | 11 | 0 | 6 | 5 + Original | --- | III |

Table 25 continu

| Quality Indicator Determined by the IHEP (2000) Study | Revisions Suggested in: Delphi Round I | Revisions Suggested in: Delphi Round II | Suggested Revisions Eliminated After Delphi Round I | Suggested Revisions Returned: In Delphi Round III for Re-vote | Suggested Revisions Returned: In Delphi Round IV if needed | Delphi Round Approval |
|---|---|---|---|---|---|---|
| 20. Instructor training and assistance, including peer mentoring, continues through the progression of the online course. | 5 | 0 | 3 | 2 + Original | --- | III |
| 21. Faculty members are provided with written resources to deal with issues arising from student use of electronically-accessed data. | 11 | 0 | 7 | 5 | --- | III |
| 22. The program's educational effectiveness and teaching/learning process is assessed through an evaluation process that uses several methods and applies specific standards. | 4 | 0 | 2 | 2 + Original | 2 | IV |
| 23. Data on enrollment, costs, and successful/innovative uses of technology are used to evaluate program effectiveness. | 7 | 0 | 4 | 3 + Original | --- | III |
| 24. Intended learning outcomes are reviewed regularly to ensure clarity, utility, and appropriateness. | 4 | 0 | 3 | 1 + Original | --- | III |

Table 26

*Final Results of the Original IHEP 24 Indicators*

| Original IHEP Indicator (2000) | Revised Indicator (2010) | Differences Addressed |
|---|---|---|
| Institutional Support | | |
| #1. A documented technology plan that includes electronic security measures (i.e., password protection, encryption, back-up systems) is in place and operational to ensure both quality standards and the integrity and validity of information. | 1. A documented technology plan that includes electronic security measures (e.g., password protection, encryption, secure online or proctored exams, etc.) is in place and operational to ensure quality standards, adherence to FERPA and the integrity and validity of information. | 1. Online exams and adherence to FERPA guidelines |
| #2. The reliability of the technology delivery system is as failsafe as possible | 2. The technology delivery systems are highly reliable and operable with measurable standards being utilized such as system downtime tracking or task benchmarking. | 2. Measurable standards are in place for technology performance |
| #3. A centralized system provides support for building and maintaining the distance education infrastructure. | 3. A centralized system provides support for building and maintaining the distance education infrastructure. (Unchanged) | 3. Unchanged |
| Course Development | | |
| #4. Guidelines regarding minimum standards are used for course development, design, and delivery, while learning outcomes—not the availability of existing technology—determine the technology being used to deliver course content. | 4a. Guidelines regarding minimum standards are used for course development, design, and delivery of online instruction | 4a. Split into two statements |
| | 4b. Technology is used as a tool to achieve learning outcomes in delivering course content. | 4b. Technology is a tool |

Table 26 continue

| Original IHEP Indicator (2000) | Revised Indicator (2010) | Differences Addressed |
|---|---|---|
| Course Development (cont'd) | | |
| #5. Instructional materials are reviewed periodically to ensure they meet program standards. | 5. Instructional materials, course syllabus and learning outcomes are reviewed periodically to ensure they meet program standards. | 5. Course syllabus and learning outcomes are reviewed |
| #6. Courses are designed to require students to engage themselves in analysis, synthesis, and evaluation as part of their course and program requirements. | 6. Courses are designed so that students develop the necessary knowledge and skills to meet learning objectives at the course and program level. These may include engagement via analysis, synthesis and evaluation. | 6. Focus is on learning outcomes along with student engagement |
| Teaching And Leaning | | |
| #7. Student interaction with faculty and other students is an essential characteristic and is facilitated through a variety of ways, including voice-mail and/or e-mail. | 7. Student-to-Student interaction and Faculty-to-Student interaction are essential characteristics and are facilitated through a variety of ways. | 7. Student to Student and Faculty to Student interaction was specified |
| #8. Feedback to student assignments and questions is constructive and provided in a timely manner. | 8. Feedback *on* student assignments and questions is constructive and provided in a timely manner. (one word change) | 8. Just one word changed "on" |
| #9. Students are instructed in the proper methods of effective research, including assessment of the validity of resources. | 9. Students learn appropriate methods for effective research, including assessment of the validity of resources and the ability to master resources in an online environment. | 9. Student learn instead of Students are instructed; resources in an online environment were added |

Table 26 continues

| Original IHEP Indicator (2000) | Revised Indicator (2010) | Differences Addressed |
|---|---|---|
| Course Structure | | |
| #10. Before starting an online program, students are advised about the program to determine (1) if they possess the self-motivation and commitment to learn at a distance and (2) if they have access to the minimal technology required by the course design. | 10a. (Was in Course Structure) Divided into two: 1) Before starting an online program, students are advised about the program to determine if they possess the self-motivation and commitment to learn at a distance. | 10a. Divided into two statements. |
| | 10b. Before starting an online program, students are advised about the program to determine if they have access to the minimal technology required by the course design. | 10b. Divided into two statements |
| #11. Students are provided with supplemental course information that outlines course objectives, concepts, and ideas, and learning outcomes for each course are summarized in a clearly written, straightforward statement. | 11. The online course site includes a syllabus outlining course objectives, learning outcomes, evaluation methods, textbook information, and other related course information, making course requirements transparent at time of registration. | 11. Specifies syllabus available at time of registration which includes all course requirements |
| #12. Students have access to sufficient library resources that may include a "virtual library" accessible through the World Wide Web. | 12. The institution ensures that all distance education students, regardless of where they are located, have access to library/learning resources adequate to support the courses they are taking (SACS statement). | 12. Adequate support was specified |
| #13. Faculty and students agree upon expectations regarding times for student assignment completion and faculty response. | 13. Expectations for student assignment completion, grade policy, and faculty response are clearly provided in the course syllabus. | 13. The word agree was removed; expectations are provided, not agreed upon |

Table 26 continues

| Original IHEP Indicator (2000) | Revised Indicator (2010) | Differences Addressed |
|---|---|---|
| Student Support | | |
| #14. Students receive information about programs, including admission requirements, tuition and fees, books and supplies, technical and proctoring requirements, and student support services. | 14. Students receive (or have access to) information about programs, including admission requirements, tuition and fees, books and supplies, technical and proctoring requirements, and student support services prior to admission and course registration. | 14. Access to needed information is provided prior to admission and registration |
| #15. Students are provided with hands-on training and information to aid them in securing material through electronic databases, interlibrary loans, government archives, news services, and other sources. | 15. Students are provided with access to training and information they will need to secure required materials through electronic databases, interlibrary loans, government archives, new services and other sources. | 15. Hands On was removed; access to training was added |
| #16. Throughout the duration of the course/program, students have access to technical assistance, including detailed instructions regarding the electronic media used, practice sessions prior to the beginning of the course, and convenient access to technical support staff. | 16. Throughout the duration of the course/program, students have access to appropriate technical assistance and technical support staff. | 16. Removed instructions for electronic media and practice sessions |
| #17. Questions directed to student service personnel are answered accurately and quickly, with a structured system in place to address student complaint. | 17. Student support personnel are available to address student questions, problems, bug reporting, and complaints. | 17. Problems and bug reporting was added |

Table 26 continues

| Original IHEP Indicator (2000) | Revised Indicator (2010) | Differences Addressed |
|---|---|---|
| Faculty Support | | |
| #18. Technical assistance in course development is available to faculty, who are encouraged to use it. | 18/19 Combined: Technical assistance in course development and assistance with the transition to teaching online is provided [for faculty]. | 18. Combined with 19 |
| #19. Faculty members are assisted in the transition from classroom teaching to online instruction and are assessed during the process. | | 19. Combined with 18 |
| #20. Instructor training and assistance, including peer mentoring, continues through the progression of the online course. | 20. Instructors are prepared to teach distance education courses and the institution ensures faculty receive training, assistance and support at all times during the development and delivery of courses. | 20. Instructors are prepared |
| #21. Faculty members are provided with written resources to deal with issues arising from student use of electronically-accessed data. | 21. Faculty receive training and materials related to Fair Use, plagiarism, and other relevant legal and ethical concepts. | 21. Training was added; Fair Use, plagiarism, and legal and ethical were specified |
| Evaluation and Assessment | | |
| #22. The program's educational effectiveness and teaching/learning process is assessed through an evaluation process that uses several methods and applies specific standards. | 22. The program is assessed through an evaluation process that applies specific established standards. | 22. Education effectiveness and teaching and learning not specified, program assessment is more general, and it should be against established standards |

Table 26 continues

| Original IHEP Indicator (2000) | Revised Indicator (2010) | Differences Addressed |
|---|---|---|
| Evaluation and Assessment (cont'd) | | |
| #23. Data on enrollment, costs, and successful/innovative uses of technology are used to evaluate program effectiveness. | 23. A variety of data (academic and administrative information) are used to regularly and frequently evaluate program effectiveness and to guide changes toward continual improvement. | 23. Variety of data including academic is frequently used to guide changes |
| #24. Intended learning outcomes are reviewed regularly to ensure clarity, utility, and appropriateness. | 24. Intended learning outcomes at the course and program level are reviewed regularly to ensure clarity, utility, and appropriateness. | 24. Program level outcomes were added |

*members are provided with written resources to deal with issues arising from student use of electronically-accessed data* changed to *Faculty receive training and materials related to Fair Use, plagiarism, and other relevant legal and ethical concepts*), faculty training should be provided in Fair Use guidelines, plagiarism, and legal and ethical issues were specified. The other indicators were only slightly modified. Table 26 also summarizes the differences in each of the revised standard from the original IHEP standards.

As evidenced by Table 26, the changes varied from one word to multiple changes; however, the primary intent remained the same, which validates the original IHEP research in 2000.

*Question two*. What additional standards should be included that address the current industry in 2010? After the six Delphi survey rounds, the panel of experts suggested a total of 80 potential quality indicators and determined that 45 of those suggested indicators were relevant for a scorecard for quality assessment of an online education program. Table 27 presents the number of potential indicators per category that were suggested and the total number approved for each category. The panel of experts added two additional categories: Technology Support and Social and Student Engagement; therefore, some of the additional indicators were placed within the appropriate categories. Of the suggested indicators for the Course Development and Instructional Design category, 72% of those suggested by the panel achieved consensus. The Student Support category received an additional 11 indicators of the 16 suggested, the Evaluation and Assessment category received eight additional indicators of the 14 suggested while Social and Student Engagement, a new category, only had one indicator

Table 27

*Total Additional Quality Indicators*

| Category | Total Number of Suggested Quality Indicators | Total Number Approved by the Panel of Experts | Percent Achieving Consensus |
|---|---|---|---|
| Institutional Support | 10 | 4 | 40% |
| Technology Support | 4 | 3 | 75% |
| Course Development and Instructional Design | 11 | 8 | 72% |
| Teaching and Learning | 6 | 2 | 33% |
| Course Structure | 12 | 5 | 42% |
| Student Support | 16 | 11 | 69% |
| Faculty Support | 6 | 3 | 50% |
| Evaluation and Assessment | 14 | 8 | 57% |
| Social and Student Engagement | 1 | 1 | 100% |

approved but only one was suggested by the panel of experts. The Teaching and Learning category only had 33% of the six indicators suggested and Institutional Support had just 40% approved of the ten indicators suggested by the panel members.

Appendix ZZ provides all 80 indicators that were suggested by the Delphi Panel throughout the study. Table 28 presents the 45 quality indicators suggested and approved by the panel of experts that were added to the revised IHEP indicators to develop a quality scorecard for the administration of online education programs.

*Question three*. If additional standards are suggested, will they fall into the already identified themes or will new themes emerge? The majority of the additional standards suggested by the experts did indeed fall naturally into the existing seven IHEP Categories: Institutional Support, Teaching and Learning, Student Support, Faculty

Table 28

*The 45 Additional Quality Indicators Approved for Scorecard*

| | Delphi Round Consensus |
|---|---|
| Institutional Support | |
| 1. The institution has put in place a governance structure to enable effective and comprehensive decision making related to distance learning. | Round II |
| 2. Policies are in place to authenticate that students enrolled in online courses, and receiving college credit are indeed those completing the course work. | Round II |
| 3. Policy for copyright ownerships of course materials exists. | Round II |
| 4. The institution has defined the strategic value of distance learning to its enterprise and to its relevant parts. | Round IV |
| Technology Support | |
| 5. The course delivery technology is considered a mission critical enterprise system and supported as such. | Round III |
| 6. Institution maintains system backup for data availability. | Round II |
| 7. Faculty, staff, and students are supported in the development and use of new technologies and skills. | Round IV |
| Course Development and Instructional Design | |
| 8. Learning objectives describe outcomes that are measurable. | Round III |
| 9. Selected assessments measure the course learning objectives and are appropriate for an online learning environment. | Round III |
| 10. Student-centered instruction is considered during the course-development process. | Round II |
| 11. There is consistency in course development for student retention and quality. | Round II |
| 12. Course design promotes both faculty and student engagement. | Round II |
| 13. Current and emerging technologies are evaluated and recommended for online teaching and learning. | Round IV |

Table 28 continues

| | Delphi Round Consensus |
|---|---|
| Course Development and Instructional Design (cont'd) | |
| 14. Instructional design is provided for creation of effective pedagogy for both synchronous and asynchronous class sessions. | Round IV |
| 15. Curriculum development is a core responsibility for faculty. | Round IV |
| Course Structure | |
| 16. Links or explanations of technical support are available in the course. | Round III |
| 17. Instructional materials are easily accessible and usable for the student. | Round II |
| 18. The course adequately addresses the special needs of disabled students via alternative instructional strategies and/or referral to special institutional resources. | Round II |
| 19. Opportunities/tools provided to encourage student-student collaboration (i.e., web conferencing, instant messaging, etc) | Round IV |
| 20. Documents attached to modules are in a format that is easily accessed with multiple operating systems and productivity software (PDF, for example). | Round VI |
| Teaching and Learning | |
| 21. Students are provided access to library professionals and resources that help them to deal with the overwhelming amount of online resources. | Round IV |
| 22. Instructors use specific strategies to create a presence in the course | Round VI |
| Social And Student Engagement | |
| 23. Students should be provided a way to interact with other students in an online community. | Round IV |
| Faculty Support | |
| 24. Faculty are provided on-going professional development related to online teaching and learning. | Round II |
| 25. Clear standards are established for faculty engagement and expectations around online teaching. | Round II |
| 26. Faculty workshops are provided to make them aware of emerging technologies and the selection and use of these tools. | Round IV |

Table 28 continues

| | Delphi Round Consensus |
|---|---|
| Student Support | |
| 27. Students have access to effective academic, personal, and career counseling. | Round III |
| 28. Minimum technology standards are established and made available to students. | Round III |
| 29. Student support services are provided for outside the classroom such as academic advising, financial assistance, peer support, etc. | Round II |
| 30. Policy and process is in place to support ADA requirements. | Round II |
| 31. Students are provided relevant information: ISBN numbers, suppliers, etc. and delivery modes for all required; instructional materials: digital format, e-packs, print format, etc. to ensure easy access. | Round IV |
| 32. Program demonstrates a student-centered focus rather than trying to fit service to the distance education student in on-campus student services. | Round IV |
| 33. Efforts are made to engage students with the program and institution. | Round IV |
| 34. Students are instructed in the appropriate ways of communicating with faculty and students. | Round IV |
| 35. The institution provides guidance to both students and faculty in the use of all forms of technologies used for course delivery. | Round IV |
| 36. Tutoring is available as a learning resource. | Round IV |
| 37. Students are instructed in the appropriate ways of enlisting help from the program. | Round V |
| Evaluation and Assessment | |
| 38. A process is in place for the assessment of faculty and student support services. | Round III |
| 39. Course and program retention is assessed. Results of course evaluations are used as part of faculty/instructor performance evaluations. | Round III |
| 40. Recruitment and retention are examined and reviewed. | Round III |
| 41. Program demonstrates compliance and review of accessibility standards (Section 508, etc.) | Round III |
| 42. Course evaluations are examined in relation to faculty performance evaluation. | Round III |

Table 28 continues

| | Delphi Round Consensus |
|---|---|
| Evaluation and Assessment (cont'd) | |
| 43. Faculty performance is regularly assessed. | Round III |
| 44. Alignment of learning outcomes from course to course exists. | Round III |
| 45. Course evaluations collect student feedback on quality of content and effectiveness of instruction. | Round II |

Support, Course Structure, Course Development, and Evaluation and Assessment. It is important to point out that in the original IHEP list of quality indicators, the Institutional Support category primarily addressed technology support standards and not necessarily those related to institutional support such as mission and strategic planning; therefore, the panel of experts determined two categories were necessary: Technology Support and Institutional Support. The existing IHEP indicators in the Institutional Support category were moved to the Technology Support since their focus was technology support provided by the institution.

Aside from dividing the *Institutional Support* and *Technology Support* categories, the panel of experts suggested an additional 20 categories but only 2 of those suggestions achieved consensus: *Instructional Design* and *Social and Student Engagement*. The researcher combined Instructional Design with the Course Development category, now called Course Development and Instructional Design, because there was no clear distinction for identifying quality indicators for either category. After all panel voting had concluded, the Technology Support and Social and Student Engagement category were the only two new categories added to the Scorecard; however, it is interesting to note

there was only one quality indicator in Social and Student Engagement category that achieved panel consensus.

At the conclusion of the study, nine categories of quality indicators existed: Institutional Support, Technology Support, Faculty Support, Course Structure, Course Development and Instructional Design, Teaching and Learning, Student Support, Social and Student Engagement, and Evaluation and Assessment.

*Question four*. What values will be assigned to the recommended standards that will ultimately yield a numeric scorecard for measuring quality online education programs from an online education administrator's perspective that could also support strategic planning and program improvements? Eight potential scoring methods were suggested in Delphi Round IV. After voting in Delphi Round V concluded, four of the methods were removed for lack of consensus. Only those selected by 70% of the panel were reviewed again by the panel of experts. Table 29 shows the frequency of votes per method of scoring in Round VI. Some panel members had to change their vote from the prior survey round in the final survey round since several of the previous scoring options were removed.

The panel of experts determined that each quality indicator should be worth a potential three points for a total of 210 points. Each quality indicator will be scored in the following manner: 0 points - not observed, 1 point - insufficient, 2 points - moderate use, 3 points - completely meets criteria. The panel had also suggested that a parameter or a minimum score be established for each category of the scorecard (a certain percentage of the points) to establish a goal; however, the panel did not make a suggestion as to what the minimum score for each category should be.

Table 29

*Frequency of Votes for Each Suggested Scoring Method*

| Suggested Scoring Method | Frequency of Suggestions in Round IV | Frequency of Votes in Round V | Frequency of Votes in Round VI |
|---|---|---|---|
| One point per quality indicator | 4 | 4 | 2 |
| Five points per quality indicator | 1 | 1 | *-- |
| Each category equals a total of 10 points | 5 | 6 | 2 |
| Each category equals one point for each | 1 | 0 | *-- |
| Each indicator equals one point but has 3 possible options: Does not meet standard (0 points). Partly meets standard (.5 point). Meets or exceeds standard completely (1 point). Quality programs must achieve 85% of possible points | 1 | 5 | 3 |
| Each indicator has 3 possible points (0 - not observed, 1 - insufficient, 2 - moderate use, 3 - completely meets criteria), then each area must have a certain percentage of the points to consider itself worthy of meeting the goals of that area | 1 | 6 | 19 |
| Each Indicator has 3 options: Below Acceptable Standards (0 points), Meets Expected Standards (1 point) and Exceeds Standards (2 points) | 1 | 3 | *-- |
| A simple Likert scale with anchors to improve reliability | 1 | 3 | *-- |

*Note. *The scoring method was not offered again in Delphi Round VI because of low response in Delphi Round V.*

*Question five*. How will the numeric scorecard compare to other quality assessment models used in higher education, such as the Balanced Scorecard and the Malcolm Baldrige National Quality Award? The scorecard created from this research study has 9 categories for assessing a quality program. Within these categories, there are

70 quality individual indicators or standards that make up quality online education. The scorecard developed from this research study does not really closely compare to the Balanced Scorecard method or Total Quality Management process, because the BSC and TQM do not really provide a standardized scorecard for scoring levels of quality within an institution. Instead, they both encourage institutions to develop their own performance guidelines and to focus on quality improvement; however, both methods leave it up to the institution to determine its own goals and objectives for quality improvement. This study's scorecard will provide the established standards for institutions to use for scoring.

The scorecard resulting from this research study is more closely aligned with the Baldrige process for quality improvement. While the Malcolm Baldrige Quality National Award was originally established to indicate performance excellence in business and government, a modified version of the criteria was developed for educational institutions, titled *The Baldrige Education Criteria for Performance Excellence (Baldrige National Quality Program, 2009)*. The criteria outline seven key areas for measuring quality and performance: leadership, strategic planning, student, stakeholder and market focus, information and analysis, faculty and staff focus, educational and support process management, and school performance results. The scorecard developed from this research study outlines nine key areas similar to the Baldrige Criteria and are compared in Table 30. While not all of the categories are identically matched, the goal was the same: to provide a method or process so that an institution or individual program may self-assess, measure quality, and improve overall performance.

Table 30

*Comparison of Quality Focus Areas between Baldrige and the New Scorecard*

| Baldrige Criteria | Similar? | Study Developed Quality Scorecard |
|---|---|---|
| Leadership | Partially | Institutional Support Category |
| Strategic Planning | Partially | Institutional Support Category |
| Student, Stakeholder and Market Focus | Closely | Student Support Category |
| Information and Analysis | Partially | Evaluation and Assessment Category |
| Workforce Focus (Faculty and Staff) | Closely | Faculty Support Category |
| Process Management (Educational and Support) | Closely | Course Development and Instructional Design Category, Teaching and Learning Category, and Course Structure Category |
| Results (School Performance) | Partially | Evaluation and Assessment Category |

## Summary

This chapter presented the data collection and analysis from the six round Delphi study that resulted in the development of a quality scorecard for the administration of online education programs. The panel of experts were administrators of online education programs, with the majority (83.3%) having more than nine years of experience and work at a variety of institutions in higher education: public institutions (large, medium, small), private institutions (large medium, small), faith-based (medium, small) community colleges (large), and for-profit (large).

The 24 original IHEP quality indicators were examined by the panel of experts for relevance in 2010, and panel members were asked to suggest additional indicators and categories of quality indicators they believed necessary to be included in a scorecard for quality online education. Data collection and analysis yielded revisions to the 24 IHEP

indicators—#18 and #19 were combined, and #4 and #10 were divided into two additional indicators. An additional 45 indicators were approved (out of the 80 suggested) to be included in the quality scorecard for a total of 70 quality indicators. Two additional categories were added and the following scoring method achieved consensus: *each quality indicator may score up to 3 points, which yields a perfect score of 210 points.*

The quality scorecard resulting from this research study is more closely aligned with the Baldrige Education Criteria for Performance Excellence but not with the Balanced Scorecard or Total Quality Management methods used in both business and education.

# Chapter V

## Summary, Discussion, and Recommendations

The primary research goal of this Delphi study was to identify quality indicators that could be used to develop a quality scorecard for assessing the administration of online education programs. The study began with a panel of experts in online education administration who first examined the original 24 quality indicators determined in a 2000 study by the Institute for Higher Education Policy titled *Quality on the Line.* Six Delphi survey rounds were completed by 26 of the original 44 expert panel members, which resulted in a total of 70 quality indicators. Each quality indicator has a potential range of 0-3 points, which could yield a perfect score of 210 points (Appendix AAA). This chapter presents discussion of the results, implications, and recommendations for further research.

### Summary of Findings by Research Questions

The central purpose for this dissertation was the development of a scorecard to measure and quantify elements of quality within online education programs in higher education that may also support strategic planning and program improvements. A summary of the results for each research question is provided:

**Research question #1.** Are the standards identified in the IHEP/NEA study in 2000 still relevant in 2010 for indicating quality in online education programs in higher education?

***Research question #1 results***. The original 24 IHEP indicators were evaluated for relevance in 2010 and clarity of meaning. All 24 indicators were determined relevant and included in the quality scorecard; however, 22 of the 24 indicators were revised. Only

two of the original IHEP indicators remained the same. Two of the indicators were combined (#18 and #19), which equals a sum of 23 indicators. Two other indicators were divided to create two additional indicators (#4 and #10) yielding a total of 25 indicators.

**Research question #2**. What additional standards should be included that address the current industry in 2010?

***Research question #2 results.*** The panel of experts suggested a total of 80 potential quality indicators. Of the 80 suggested, 45 quality indicators were approved to be included in the quality scorecard. Adding these 45 indicators to the 25 indicators stemming from the IHEP study yielded a total of 70 quality indicators.

**Research question #3**. If additional standards are suggested, will they fall into the already identified themes or will new themes emerge?

***Research question #3 results.*** Three additional categories achieved consensus; however, only two were added to the scorecard: Technology Support and Student and Social Engagement. The instructional design category that achieved panel consensus was combined with Course Development. The additional 45 quality indicators did fall within the established categories.

**Research question #4.** What values will be assigned to the recommended standards that will ultimately yield a numeric scorecard for measuring quality online education programs from an online education administrator's perspective that could also support strategic planning and program improvements?

***Research question #4 results.*** The panel of experts agreed that the 70 quality indicators could potentially be worth three points each: 0 - not observed, 1 - insufficient, 2 - moderate use, 3 - completely meets criteria. The panel wanted a parameter or

minimum score to be established for each category of the scorecard (a certain percentage of the points) to establish a goal; however, the panel did not make a suggestion as to what the minimum score for each category should be. The identification of a minimum score for the scorecard is recommended for further research.

**Research question #5.** How will the numeric scorecard compare to other quality assessment models used in higher education, such as the Balanced Scorecard and the Malcolm Baldrige National Quality Award?

***Research question #5 results.*** The scorecard resulting from this research study is more closely aligned with the Baldrige process for quality improvement. The scorecard does not really closely compare to the Balanced Scorecard method or Total Quality Management process, because the BSC and TQM do not really provide a standardized scorecard for scoring levels of quality within an institution. Instead, they both encourage institutions to develop their own performance guidelines and to focus on quality improvement; however, both methods leave it up to the institution to determine its own goals and objectives for quality improvement. This study's quality scorecard provided a list of industry agreed upon standards for institutions offering online education to use as an instrument for assessing quality within their programs.

**Discussion and Implications of Findings**

The six round Delphi study examined the original 24 quality indicators from the IHEP study in 2000 and collected additional quality indicators that the expert panel members believed to be relevant for assessing the quality of online education programs in higher education. The study received strong participation from the expert panel and the researcher believes that their strong rate of participation may be attributed to their keen

interest in the results of the study. Each panel member was an online administrator; many indicated they would use the scorecard to self-assess quality within their online program.

Each of the categories provided in the original IHEP study remained and two additional categories were added by the panel members, which provided the framework for the quality scorecard. Table 31 presents a summary of the approved 70 quality indicators and denotes if the indicator is a derivative of the original IHEP standard or if it was provided by the panel of experts.

Table 31

*Summary of Scorecard Indicators*

| | Category | From Original IHEP Indicator | Expert Panel Suggestion |
|---|---|---|---|
| | Institutional Support | X | |
| 1. | Governance structure for decision making | | X |
| 2. | Student authentication policy | | X |
| 3. | Copyright ownership of course materials policy | | X |
| 4. | Strategic value of distance learning is communicated | | X |
| | Technology Support | | X |
| 5. | Technology plan which includes security measures (FERPA) | X | |
| 6. | Technology is reliable and measured | X | |
| 7. | Central support system for building and maintaining technology infrastructure | X | |
| 8. | Technology is mission critical and well supported | | X |
| 9. | Backup system for data availability | | X |

Table 31 continues

| | Category | From Original IHEP Indicator | Expert Panel Suggestion |
|---|---|---|---|
| | Technology Support (cont'd) | | |
| 10. | Technological support for faculty, students and staff | | X |
| | Course Development and Instructional Design | X | X (modified) |
| 11. | Minimum standards for course design | X | |
| 12. | Technology supports learning outcomes | X | |
| 13. | Course materials are reviewed periodically | X | |
| 14. | Course design supports learning outcomes including analysis, synthesis and evaluation | X | |
| 15. | Learning outcomes are measurable | | X |
| 16. | Appropriate assessments measure objectives | | X |
| 17. | Design based upon student-centered instruction | | X |
| 18. | Consistent course development for retention and quality | | X |
| 19. | Faculty and student engagement in course design | | X |
| 20. | Technologies are evaluated for online learning | | X |
| 21. | Instructional design is provided | | X |
| 22. | Faculty create curriculum | | X |
| | Course Structure | X | |
| 23. | Comprehensive syllabus | X | |
| 24. | Library access | X | |
| 25. | Student Expectations for assessment and faculty response | X | |
| 26. | Technical support explained or linked | | X |
| 27. | Accessible and usable course materials | | X |
| 28. | Disabled students are addressed | | X |
| 29. | Student-to Student collaboration | | X |

Table 31 continues

| | Category | From Original IHEP Indicator | Expert Panel Suggestion |
|---|---|---|---|
| | Course Structure (cont'd) | | |
| 30. | Course documents are easily accessed. | | X |
| | Teaching and Learning | X | |
| 31. | Student/student and faculty/student interaction | X | |
| 32. | Instructor feedback | X | |
| 33. | Effective research methods | X | |
| 34. | Online resource support | | X |
| 35. | Specific 'instructor presence' strategies are used. | | X |
| | Social and Student Engagement | | X |
| 36. | Online community encouraged | | X |
| | Faculty Support | X | |
| 37. | Faculty technical assistance | X | |
| 38. | Faculty training | X | |
| 39. | Fair use, plagiarism and legal concepts are addressed | X | |
| 40. | Ongoing professional development | | X |
| 41. | Faculty engagement standards | | X |
| 42. | Workshops for emerging technologies | | X |
| | Student Support | X | |
| 43. | Students are advised about program for motivation and commitment | X | |
| 44. | Students are advised about minimal technology requirements | X | |
| 45. | Programs and support service information provided to students | X | |
| 46. | Library access and support training for students | X | |

Table 31 continues

| | Category | From Original IHEP Indicator | Expert Panel Suggestion |
|---|---|---|---|
| | Student Support (cont'd) | | |
| 47. | Access to technical support | X | |
| 48. | Student support provided and complaints process | X | |
| 49. | Academic, career and personal counseling | | X |
| 50. | Minimum technology standards exist | | X |
| 51. | Student support services: financial aid, advising, peer support | | X |
| 52. | ADA requirement support | | X |
| 53. | Access to course materials including ISBN numbers | | X |
| 54. | Student-centered focus | | X |
| 55. | Efforts for student engagement with institution and program | | X |
| 56. | Instruction provided for methods of faculty and student communication | | X |
| 57. | Guidance for course delivery technology | | X |
| 58. | Tutoring available | | X |
| 59. | Instruction provided to students for enlisting program help | | X |
| | Evaluation and Assessment | X | |
| 60. | Program evaluation with specific standards | X | |
| 61. | Variety of data for evaluation and changes | X | |
| 62. | Review of program learning outcomes | X | |
| 63. | Assessment of faculty and student support services | | X |
| 64. | Assessment of retention (Course) | | X |
| 65. | Assessment of retention and recruitment (Program) | | X |
| 66. | ADA standard compliance | | X |

Table 31 continues

| | Category | From Original IHEP Indicator | Expert Panel Suggestion |
|---|---|---|---|
| | Evaluation and Assessment (cont'd) | | |
| 67. | Course evaluations | | X |
| 68. | Faculty performance evaluations | | X |
| 69. | Alignment of learning outcomes | | X |
| 70. | Student feedback collected | | X |

**Discussion by the categories in the quality scorecard.** The following discussion is provided for each of the categories of the quality scorecard: Institutional Support, Technology Support, Course Development and Instructional Design, Course Structure, Teaching and Learning, Social and Student Engagement, Faculty Support, Student Support, and Evaluation and Assessment.

***Institutional support***. The institutional support category was an original IHEP (2000) category but all quality indicators in this category were written toward technology support provided by the institution to the online education program. The members of the expert panel determined that all of the original quality indicators in the Institutional Support category from the IHEP study (2000) were to be moved to a new category called Technology Support. Therefore, all quality indicators in the Institutional Support category were new standards provided by the expert panel.

There were four quality indicators in the Institutional Support category, which focused on the following areas (paraphrased):

1. A governance structure is in place for decision making for distance learning;
2. Policies for student authentication are in place;

3. Policy for copyright ownership of course materials exists;
4. The strategic value of distance learning is communicated throughout the institution.

Two of the indicators addressed policy. The first, for student authentication, mandates there is a process in place for making sure that students are who they claim to be. This policy should be in place for all institutions, especially now that the Higher Education Opportunity Act 2008 requires that the regional accrediting commissions must ensure there is a process in place for student authentication for all distance learning programs. The second indicator requires that a policy be in place to clearly articulate who owns course materials that are developed for distance learning courses.

The other two quality indicators in the Institutional Support category addressed institutional mandates. The panel of experts believed that an effective and comprehensive governance structure for decision making related to distance learning is needed. The final quality indicator recommended that institutions define the strategic value of distance learning and make sure all relevant groups within the institution have received clear communication regarding its value. This indicator may have been suggested because in some institutions, distance learning programs have been left on the periphery of the institution and not given respect or well-deserved resources.

***Technology support***. The three quality indicators originally in the IHEP study (2000) Institutional Support category were approved and some of them revised by the members of the expert panel to address the following areas: a technology plan exists that includes security measures such as password protection; the technology systems used for delivery are highly reliable and being measured for performance; and a centralized

system to support the technology infrastructure needed for quality distance learning programs.

The panel of experts added three additional quality indicators in the Technology Support category: the technology utilized for the distance learning program is considered mission critical by the institution and receives equivalent support; a backup system is in place and maintained for data availability; and technological support is provided for faculty, students and staff. These three additional indicators strengthen the technology category in that they place a strong emphasis on the importance of support and the reliability of data retrieval in case of technological failure.

***Course development and instructional design***. Four quality indicators originally in the IHEP study (2000) were approved and revised by the members of the expert panel to address the following areas: minimum standards for course design; technology supports learning outcomes; course materials are reviewed periodically; and course design supports learning outcomes including analysis, synthesis, and evaluation. The panel of experts added eight additional quality indicators: learning outcomes must be measurable; appropriate assessments measure objectives; course design is based upon student-centered instruction; consistent course development for retention and quality is used; faculty and student engagement is developed with course design; technologies are evaluated for online learning; instructional design is provided; and faculty are in control of the curriculum development.

The additional indicators added by the panel further dissect the category of course development and instructional design by assigning distinct quality standards to the provision of instructional design for online course development, student engagement, and

learning objectives/outcome measurement and assessment. The final indicator addresses the responsibilities of full- and part-time faculty with the development of the curriculum for online courses and programs, which may allude to a negative connotation for programs using canned (premade) course material. The regional accreditors also indicated in their standards that institutions should allow faculty to control all curriculum development.

***Course structure***. The three quality indicators originally in the IHEP study (2000) were approved and revised by the members of the expert panel to address the following areas: a comprehensive syllabus that includes objectives, outcomes, evaluation methods, textbook information and transparent course requirements; access to library and learning resources are provided; and student expectations for assessment and faculty response are provided in the syllabus. The panel of experts added an additional four quality indicators that address the following areas: student technical support explained or linked in the course; course materials are accessible and usable; alternative instructional strategies are provided for disabled students; and student-to student collaboration is encouraged with opportunity and available tools. The original IHEP indicators in the Course Structure category did not address the potential needs for student accessibility, which is increasingly becoming an important consideration for online education programs. With the tremendous growth of enrollment, the possibility of disabled students needing accessible online course materials increases tremendously.

***Teaching and learning***. The three quality indicators originally in the IHEP study (2000) were approved and revised by the members of the expert panel to address the following areas: student-to-student and faculty-to-student interaction if present are

facilitated through a variety of ways; instructor feedback is provided on assignments in a timely manner; and effective methods for research and evaluation of online resources are taught. The members of the panel added just one additional quality indicator to the Teaching and Learning category: Students have access to library professionals and online resources. While access to library resources was listed in both the Course Structure category and the Student Support category, the original IHEP study did not specify access to library professionals, which is important for supporting effective research skills development. Many online programs are providing virtual librarian access today by using instant messaging, chat, or virtual classroom programs.

***Social and student engagement***. The original quality indicators in the IHEP study (2000) did not address the area of social and student engagement. The panel of experts approved one quality indicator for this newly approved category: students are encouraged to form an online learning community and interact with other students. This particular indicator could be considered vague and difficult to identify; however, the intent of the panel members was for the program to have made an effort toward providing opportunities for online student to experience community outside the classroom. This is being provided by some online programs with social networking websites such as Facebook and Twitter, blogs, wikis, and discussion forums.

***Faculty support***. Three quality indicators originally in the IHEP study (2000) were approved and some of them revised by the members of the expert panel to address the following areas: the provision of faculty technical assistance, faculty training, and opportunities for training about Fair Use, plagiarism, and legal concepts are provided for faculty teaching online. Additionally, the panel of experts determined that ongoing

professional development should be provided, standards should be determined for faculty engagement such as how quickly an instructor should respond to online questions, and workshops for emerging technologies should be offered. The ongoing professional development indicator could be satisfied with workshops for emerging technologies being provided; however, the panel of experts believed it was important enough to be a separate indicator. The ongoing professional development indicator could include activities such as time management strategies and pedagogical strategies.

***Student support***. Three quality indicators originally in the IHEP study (2000) were approved and some of them revised by the members of the expert panel to address the following areas: students are advised about program for motivation and commitment, students are advised about minimal technology requirements, program and support service information are provided to students, library access and support training are provided for students, access to technical support is provided, and student support services are provided to address feedback and problems and provide a complaint submission process.

Additionally, the panel of experts determined the following indicators were relevant in 2010: academic, career and personal counseling; minimum technology standards exist; student support services: financial aid, advising, peer support are provided; ADA requirement support; access to course materials including ISBN numbers; student-centered focus; efforts for student engagement with institution and program; instruction provided for methods of faculty and student communication; guidance for course delivery technology; tutoring available and instruction provided to students for enlisting program help. The Student Support category received by far the most

suggestions and indicators from the panel of experts with an additional 11 indicators being approved by the panel.

The most significant of those indicators added by the panel were first, ADA support, and second, ISBN numbers must be supplied. Both of these requirements have federal laws that required these provisions and were not in place when the original IHEP study was undertaken. The indicator that requires the program to prove there is a student-focus for support services may be a bit vague and be difficult to assess other than showing that support services were customized for the online student.

***Evaluation and assessment***. Three quality indicators in the Evaluation and Assessment category that were originally in the IHEP study (2000) were revised and approved by the members of the expert panel to address the following areas: program evaluation occurs with specific standards, a variety of data for evaluation and changes is being used, and program learning outcomes are reviewed regularly. Eight additional quality indicators were added by the panel of experts that focused on the following areas: assessment of faculty and student support services is in place; assessment of retention at the course level occurs; assessment of retention and recruitment at the program level occurs; ADA standard compliance is demonstrated; course evaluations are examined in relation to faculty performance;  faculty performance is regularly assessed; there is an alignment of learning outcomes; and course evaluations collect student feedback regarding the content and instruction. There were two indicators that addressed the use of course evaluations: they should be used in relation to faculty performance, and they should be used to collect student feedback.

**Implementation and use of the quality scorecard.** The quality scorecard was developed for the purpose of measuring and quantifying elements of quality within online education programs in higher education. The scorecard is a tool for online administrators to use for program evaluation and could be used at the program, college, or system level. The quality scorecard is organized by the nine categories determined by the panel of experts. Each category is divided into a list of quality indicators that an online administrator can use to determine strengths and weaknesses of their program. The identification of the weaknesses can be used to support program improvement and strategic planning initiatives. The scorecard could also be used to demonstrate to accrediting bodies elements of quality within the program as well as an overall level of quality.

The scorecard provided in Appendix AAA contains 70 quality indicators--each indicator is worth up to three points. The administrator will determine at what level their program meets the intent of the quality indicator after examining all procedures and processes. The following guidelines are provided by the researcher as part of the coversheet for the scorecard:

> 0 points = Not Observed. The administrator does not observe any indications of the quality standard in place.
>
> 1 point = Insufficiently Observed. The administrator has found a slight existence of the quality standard in place. Much improvement is still needed in this area.
>
> 2 points = Moderate Use. The administrator has found there to be moderate use of the quality standard. Some improvement is still needed in this area.
>
> 3 points = Meets Criteria Completely. The administrator has found that the quality standard is being fully implemented and there is no need for improvement in this area.

The following scoring guidelines are also provided by the researcher as a general recommendation for the online education administrator:

> A perfect score = 210 points.
> 90-99% = 189-209 - Exemplary (little improvement is needed)
> 80-89% = 168-188 - Acceptable (some improvement is recommended)
> 70-79% = 147-167 - Marginal (significant improvement is needed in multiple areas)
> 60-69% = 126-146 - Inadequate (many areas of improvement are needed throughout the program)
> 59% and below = 125 pts and below - Unacceptable.

The scorecard was developed to be utilized by an administrator as the researcher believed that the only the administrator would have a large enough perspective and have knowledge of all elements of the online program.

**Recommendations for future research.** This study resulted in a quality scorecard for the administration of online education programs that may be used to assess the quality of online education programs in all types of higher education institutions. A further examination of the application and use of the scorecard should be done to gather feedback on clarity of wording for each indicator and ease of use. For example, the scorecard would benefit from an additional document that explains each indicator clearly so that program administrators know how to rate each of the quality indicators within the program.

Further research should be done with a group of online education administrators who would use the scorecard to self-assess their own online programs and report their findings. A study of the results should occur and a process for benchmarking the results against other programs at similar institutions could be developed.

Another potential use of the scorecard would be for all stakeholders in an online education program to use the scorecard to evaluate the institution's online program to produce an aggregated or averaged score. Stakeholders could include faculty teaching online, instructional designers, students, administrators, and student support staff.

The scoring method for the quality scorecard resulted in a potential perfect score of 210 points; however, the panel suggested there should be some sort of minimum score for each of the nine categories to further assess the level of quality within a program. This aspect should be further explored; preferably by the same expert panel or one similar in experience to determine if there should be an identical minimum for each category or if there should be individually weighted categories.

The Social and Student Engagement category resulted in only one quality indicator. Further examination of the individual quality indicators and panel member discussion may reveal there are additional indicators in other categories, which could be moved to this category.

Finally, a review of this scorecard against every quality indicator found in the literature could be undertaken, which potentially may yield a stronger scorecard if an expert panel examined and evaluated those not duplicated as potential additions to the scorecard.

**Conclusion**

The purpose for this study was the development of a scorecard to measure and quantify elements of quality within online education programs in higher education. Quality is a perception that varies within industries, including that of higher education whose traditional indicators for quality are changing. In fact, Pond (2002) observed,

> It is quite clear that education in the 21st century presents challenges to quality assurance that were unimaginable just a quarter century ago. E-learning in particular, with its ability to render time and place irrelevant, requires that we abandon traditional indicators of "quality" such as "contact hours," "library holdings," and "physical attendance" among others in favor of more meaningful measures. (para 11)

As we abandon the traditional indicators we have used for so long, higher education needs a method to identify and assess quality within online education programs that could provide a way to benchmark and offer a path to improvement. This study provides just such a process by creating a scorecard for the administration of quality online education programs. The study also extends further validity to the original 24 IHEP indicators in 2000, in spite of it being a decade later. The original IHEP research study identified a strong base of quality indicators that, for the most part, have withstood the test of many changes throughout the field of online education. The original indicators are all included in the quality scorecard, although, all but two were revised without the primary focus being changed.

While there are rubrics being used to assess quality in online course materials, such as Quality Matters, until now, there was not an industry agreed upon instrument being used to evaluate online education programs. Many institutions prolifically advertise they offer quality online education but have not had a way to quantify or benchmark their programs. How do students know they are enrolling in a quality program? The scorecard developed as a result of this research study provides an instrument that could identify strengths and weaknesses of an online education program and be used as a benchmarking tool for evaluation against other like programs in the industry. In fact, the Sloan Consortium has expressed a plan to develop a full catalog of quality programs based upon a rubric for quality.

The identification of quality online education programs satisfies a great need in our field and has been requested by many online education administrators as a tool for program improvement. The assessment of quality online education has never been more important as fierce competition from for-profit programs as well as many non-profits programs continues to increase and students all over the world are clicking to find a respectable degree program. Quality in education really does matter as the ultimate impact is to our students.

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# Appendix A

## IRB Informed Consent Approval

IRB# 20091110379 EX
Date Approved: 11/05/2009
Valid Until: 01/20/2013

UNIVERSITY OF Nebraska Lincoln

COLLEGE OF EDUCATION AND HUMAN SCIENCES
Department of Educational Administration

INFORMED CONSENT FORM

*RESEARCH PROJECT- A QUALITY SCORECARD FOR THE ADMINISTRATION OF ONLINE EDUCATION PROGRAMS: A DELPHI STUDY*

This research study will assemble experts in online education administration from around the United States in an effort to create an instrument (scorecard) to measure quality within online education programs in higher education. Online education programs in higher education continue to grow at an exponential rate; however, there is not an industry agreed upon list of standards to evaluate quality such as what this research study seeks to develop. The purpose of this Delphi study is to determine if experts in online education administration of various types of higher education institutions believe the original 24 indicators of quality online education identified by the Institute for Higher Education Policy study (IHEP, 2000) are still relevant today and if additional indicators are needed to identify quality online education programs. The final phase of the study will result in a numeric scorecard being constructed for measuring quality in online programs from an administrator's perspective which could also be used for strategic planning and future program improvements.

You were selected by the Sloan Consortium as one of the top experts in this industry. Because this is a Delphi study which uses several rounds of surveys, this project may take several months to complete. We expect there will be five rounds of surveys. Each web-delivered survey should not take more than an hour and you will have the opportunity to leave the survey and return at a time when it is convenient.

Your participation in this study is vital. Therefore, we want you to know that your information will remain anonymous and your contact information will be kept private and secure. The survey data will be presented in aggregate form only; your individual responses will never be revealed to anyone but the researcher. Participation in this study is completely voluntary. You can withdraw at any time without harming your relationship with the investigators, the Sloan Consortium, or the University of Nebraska-Lincoln. You will be provided a small honorarium of $25 for your participation by completing all rounds of the survey process. There are no known risks or discomforts associated with this research.

If you agree to participate in this study, please indicate by checking the item below. You are encouraged to ask questions concerning the research before or after agreeing to participate in the project. If you have any questions about this study, you may contact me, Kaye Shelton, or my advisor, Jody Isernhagen, at the numbers listed below. If you have questions concerning your rights as a research subject that have not been answered by the investigator or to report any concerns about the study, you may contact the University of Nebraska-Lincoln Institutional Review Board at (402) 472-6965.

You are voluntarily making a decision whether or not to participate in this research study. Your signature certifies that you have decided to participate having read and understood the information presented. You have been provided an addressed/stamped envelope in which to return this form. You have been provided with a copy of this consent form to keep.

_____ Check if you agree to be a member of this survey panel.

***Signature of Participant:***

_____ _____
*Signature of Research Participant* *Date*

Kaye Shelton, Ph.D. Candidate - 214 235 6635
Primary Research Investigator
4105 Wildbriar, Mansfield, TX 76063
Home 817-704-3824 Cell 214-235-6635
Email: kaye@dbu.edu

Dr. Jody C. Isernhagen, Ed.D.
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132 TEAC Hall, Lincoln, NE 68588-0360
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# Appendix B

## Sloan Consortium Letter of Support

The Sloan Consortium

August 13, 2009

To the Committee for Kaye Shelton's Dissertation,

The Sloan Consortium supports Kaye Shelton's research project to identify the components of and principles guiding quality improvement in online programs, and the Consortium is willing to help select the expert panel based on the criteria Kaye Shelton proposes.

Sincerely,

Janet C. Moore, Ph.D.
Chief Knowledge Officer
The Sloan Consortium
jmoore@sloanconsortium.org
401-632-0707

# Appendix C

## Letter of Introduction to Prospective Panel Members

**A Consortium of Institutions and Organizations Committed to Quality Online Education**

January 20, 2010

Dear XXXX,
My name is Kaye Shelton, and I am conducting a study on quality online education for my dissertation at the University of Nebraska-Lincoln. You were identified by the Sloan Consortium as an expert in online education administration who may wish to be a part of the study. This research study will assemble experts in online education administration from around the United States in an effort to create an instrument (scorecard) to measure quality within online education programs in higher education. Online education programs in higher education continue to grow at an exponential rate; however, there is not an industry agreed upon list of standards to evaluate quality such as what this research study seeks to develop. The purpose of this Delphi study is to determine if experts in online education administration of various types of higher education institutions believe the original 24 indicators of quality online education identified by the Institute for Higher Education Policy study (IHEP, 2000) are still relevant today and if additional indicators are needed to identify quality online education programs. The final phase of the study will result in a numeric scorecard being constructed for measuring quality in online programs from an administrator's perspective which could also be used for strategic planning and future program improvements.

Because this is a Delphi study which uses several rounds of web-based surveys, this project may take several months to complete. We expect there will be five rounds of surveys. Each web-delivered survey should not take more than an hour and you will have the opportunity to leave the survey and return at a time when it is convenient.

We believe you will find being a part of this panel will be a rewarding experience for all involved. We are still in some of the early stages of online education programs in higher education. Because of this, your participation in this study could truly make a difference for many years to come. For your participation in this process, you would receive a copy of the final scorecard the expert panel creates for you to freely use at your institution as well as a small honorarium. If you would like to participate, please send me an email to kaye@dbu.edu acknowledging your willingness and I will promptly send you a letter of informed consent for you to sign. We hope to begin this study soon. Should you have any questions or comments regarding this process, please feel free to contact me at kaye@dbu.edu or 214-235-6685 or contact my supervisor Dr. Jody Isernhagen at jisernhagen3@unl.edu or 402-472-1088. Thank you for your consideration of this study.

With Sincere Thanks,

Kaye Shelton, Ph.D. Candidate
Primary Research Investigator
4105 Wildbriar, Mansfield, TX 76063
Home 817-704-3824 Cell 214-235-6635
Email: kaye@dbu.edu

Dr. Jody C. Isernhagen, Ed.D.
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Dr. Janet C. Moore
Chief Knowledge Officer
The Sloan Consortium
401-632-0707

# Appendix D

## Delphi Round I Survey Instrument

Online Education Quality Indicators

Thank you for agreeing to participate in this research study. You have been identified as having a key understanding of quality in online education programs in higher education which could help us determine how to best measure quality from an administrator's perspective.

Using a qualitative survey in 2000, the Institute of Higher Education Policy (IHEP) identified 24 indicators of quality within online education programs. Click here to view the IHEP 24 indicators. Since then, many aspects of online education have evolved and we have learned so much more as educators and administrators; therefore, we are interested in determining if these same 24 quality indicators are still relevant today and if there are additional indicators that should be added. Consensus for each indicator will be determined by a mean score of 4 and above with 70% of the panel in agreement. Once the survey group has reached consensus on all quality indicators (3-4 possible survey rounds), you will be asked to assign numeric values to the final indicators to create a numeric scorecard for quality evaluation which could also be used for strategic planning and program improvements.

Please carefully read each statement which was determined by the IHEP in 2000 to indicate quality in online education programs and mark your response in the appropriate box that best represents your opinion. The quality indicators you are evaluating are from previous research; therefore, please rate them as they are worded. If you feel modification of the wording is necessary, please provide your suggested modification in the space after your response for each quality indicator. The scale of response is:

**5=Definitely Relevant**
**4=Relevant**
**3=Slightly Relevant**
**2=Not Relevant**
**1=Definitely Not Relevant**

| | | Quality Indicator Determined by IHEP (2000) Study | Definitely Not Relevant | Not Relevant | Somewhat Relevant | Relevant | Definitely Relevant |
|---|---|---|---|---|---|---|---|
| NSTITUTIONAL SUPPORT | 1. | **A documented technology plan that includes electronic security measures (i.e., password protection, encryption, back-up systems) is in place and operational to ensure both quality standards and the integrity and validity of information.**<br>If you believe this statement needs revision, provide your suggested revision in the box below: | ☐1 | ☐2 | ☐3 | ☐4 | ☐5 |
| | 2. | **The reliability of the technology delivery system is as failsafe as possible.**<br>If you believe this statement needs revision, provide your suggested revision in the box below: | ☐1 | ☐2 | ☐3 | ☐4 | ☐5 |
| | 3. | **A centralized system provides support for building and maintaining the distance education infrastructure.**<br><br>If you believe this statement needs revision, provide your suggested revision in the box below: | ☐1 | ☐2 | ☐3 | ☐4 | ☐5 |

| | | | |
|---|---|---|---|
| COURSE DEVELOPMENT | 4. | **Guidelines regarding minimum standards are used for course development, design, and delivery, while learning outcomes—not the availability of existing technology—determine the technology being used to deliver course content.**<br><br>If you believe this statement needs revision, provide your suggested revision in the box below: | ☐1 ☐2 ☐3 ☐4 ☐5 |
| | 5. | **Instructional materials are reviewed periodically to ensure they meet program standards.**<br><br>If you believe this statement needs revision, provide your suggested revision in the box below: | ☐1 ☐2 ☐3 ☐4 ☐5 |
| | 6. | **Courses are designed to require students to engage themselves in analysis, synthesis, and evaluation as part of their course and program requirements.**<br><br>If you believe this statement needs revision, provide your suggested revision in the box below: | ☐1 ☐2 ☐3 ☐4 ☐5 |

| | | | |
|---|---|---|---|
| TEACHING AND LEARNING | 7. | **Student interaction with faculty and other students is an essential characteristic and is facilitated through a variety of ways, including voice-mail and/or e-mail.**<br><br>If you believe this statement needs revision, provide your suggested revision in the box below: | ☐1 ☐2 ☐3 ☐4 ☐5 |
| | 8. | **Feedback to student assignments and questions is constructive and provided in a timely manner.**<br><br>If you believe this statement needs revision, provide your suggested revision in the box below: | ☐1 ☐2 ☐3 ☐4 ☐5 |
| | 9. | **Students are instructed in the proper methods of effective research, including assessment of the validity of resources.**<br><br>If you believe this statement needs revision, provide your suggested revision in the box below: | ☐1 ☐2 ☐3 ☐4 ☐5 |
| | | | |

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|---|---|---|---|
| COURSE STRUCTURE | 10. | **Before starting an online program, students are advised about the program to determine (1) if they possess the self-motivation and commitment to learn at a distance and (2) if they have access to the minimal technology required by the course design.**<br><br>If you believe this statement needs revision, provide your suggested revision in the box below: | ☐1 ☐2 ☐3 ☐4 ☐5 |
| | 11. | **Students are provided with supplemental course information that outlines course objectives, concepts, and ideas, and learning outcomes for each course are summarized in a clearly written, straightforward statement.**<br><br>If you believe this statement needs revision, provide your suggested revision in the box below: | ☐1 ☐2 ☐3 ☐4 ☐5 |
| | 12. | **Students have access to sufficient library resources that may include a "virtual library" accessible through the World Wide Web.**<br><br>If you believe this statement needs revision, provide your suggested revision in the box below: | ☐1 ☐2 ☐3 ☐4 ☐5 |

| | | | |
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| | | | |
| | **13.** | **Faculty and students agree upon expectations regarding times for student assignment completion and faculty response.**<br><br>If you believe this statement needs revision, provide your suggested revision in the box below: | ☐1 ☐2 ☐3 ☐4 ☐5 |
| | | | |
| **STUDENT SUPPORT** | **14.** | **Students receive information about programs, including admission requirements, tuition and fees, books and supplies, technical and proctoring requirements, and student support services.**<br><br>If you believe this statement needs revision, provide your suggested revision in the box below: | ☐1 ☐2 ☐3 ☐4 ☐5 |
| | **15.** | **Students are provided with hands-on training and information to aid them in securing material through electronic databases, interlibrary loans, government archives, news services, and other sources.**<br><br>If you believe this statement needs revision, provide your suggested revision in the box below: | ☐1 ☐2 ☐3 ☐4 ☐5 |

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| | **16.** | **Throughout the duration of the course/program, students have access to technical assistance, including detailed instructions regarding the electronic media used, practice sessions prior to the beginning of the course, and convenient access to technical support staff.**<br><br>If you believe this statement needs revision, provide your suggested revision in the box below: | ☐1 ☐2 ☐3 ☐4 ☐5 |
| | **17.** | **Questions directed to student service personnel are answered accurately and quickly, with a structured system in place to address student complaints.**<br><br>If you believe this statement needs revision, provide your suggested revision in the box below: | ☐1 ☐2 ☐3 ☐4 ☐5 |
| | | | |
| **FACULT** | **18.** | **Technical assistance in course development is available to faculty, who are encouraged to use it.**<br><br>If you believe this statement needs revision, provide your suggested revision in the box below: | ☐1 ☐2 ☐3 ☐4 ☐5 |

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| | 19. | **Faculty members are assisted in the transition from classroom teaching to online instruction and are assessed during the process.**<br><br>If you believe this statement needs revision, provide your suggested revision in the box below: | ☐1 ☐2 ☐3 ☐4 ☐5 |
| | 20. | **Instructor training and assistance, including peer mentoring, continues through the progression of the online course.**<br><br>If you believe this statement needs revision, provide your suggested revision in the box below: | ☐1 ☐2 ☐3 ☐4 ☐5 |
| | 21. | **Faculty members are provided with written resources to deal with issues arising from student use of electronically-accessed data.**<br><br>If you believe this statement needs revision, provide your suggested revision in the box below: | ☐1 ☐2 ☐3 ☐4 ☐5 |

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| | | | |
| EVALUATION AND ESSMENT | 22. | **The program's educational effectiveness and teaching/learning process is assessed through an evaluation process that uses several methods and applies specific standards.**<br><br>If you believe this statement needs revision, provide your suggested revision in the box below: | ☐1 ☐2 ☐3 ☐4 ☐5 |
| | 23. | **Data on enrollment, costs, and successful/innovative uses of technology are used to evaluate program effectiveness.**<br><br>If you believe this statement needs revision, provide your suggested revision in the box below: | ☐1 ☐2 ☐3 ☐4 ☐5 |
| | 24. | **Intended learning outcomes are reviewed regularly to ensure clarity, utility, and appropriateness.**<br><br>If you believe this statement needs revision, provide your suggested revision in the box below: | ☐1 ☐2 ☐3 ☐4 ☐5 |

| | | | |
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1. After reviewing the previous 24 recommended quality indicators for online education programs, please list all additional quality indicators that you feel are now relevant today that were not included in the original NEA (2000) study. *Click here to view the IHEP 24 indicators you have already evaluated.* (The answer space will increase as you continue to add indicators so please list as many as you believe are relevant now.)

2. The previous NEA (2000) study divided the quality indicators into the following themes:

*Institutional Support*
*Course Development*
*Teaching and Learning*
*Course Structure*
*Student Support*
*Faculty Support*
*Evaluation and Assessment*

Based upon any additional indicators that you listed in the prior question, are there additional themes that should be added to assess quality online education programs? Is so, please list as many as you think should be added. Click here to view the IHEP 24 indicators you have already evaluated.

3. Please indicate how many years you have been an administrator in the online education industry:

- ☐ .5 years or less
- ☐ .7 years or less
- ☐ .9 years or less
- ☐ .10 or more years

# Appendix E

## Delphi Round I: Initial Email for Survey

February 23, 2010
Delphi Round 1 Survey: A Quality Scorecard for the Administration of Online Education

Dear [FirstName],

I again wanted to express my appreciation for your participation in this panel study for quality online education and believe it will be a rewarding experience for all involved. We are still in some of the early stages of online education programs in higher education and what truly defines quality. Because of this, your participation in this study will truly make a difference for many years to come.

The method used for this study will be a Delphi survey technique for gathering consensus among the expert panel. This will involve an estimated 3-5 rounds of web-based surveys in which you provide feedback on what the quality indicators should be. This may involve a time commitment of one to two hours per survey that can be completed within a two week time frame. You may leave the survey and return to complete it (it is tracked by your computer so you will need to return to it using the computer you used to start the survey. Your responses will be anonymous to other members of the panel so we encourage to sincerely respond with what you believe is truly a quality online education program. Your responses will be collected and the overall results will make up the next round of the survey.

The first round survey will be open until March 9, 2010 at 5pm. However, if all panelists have responded before then, the survey will close and we will move to the second round. The survey is located at: http://www.surveymonkey.com/s.aspx

Should you have any questions or comments regarding this process, please feel free to contact me at kaye@dbu.edu or 214-235-6685. This link is uniquely tied to this survey and your email address. Please do not forward this message.

Thanks for your participation!
Kaye Shelton
Ph.D. Candidate, University of Nebraska-Lincoln
Dean, Online Education
Dallas Baptist University
3000 Mountain Creek Parkway
Dallas, TX 75211
214 333 5283 OFC
kaye@dbu.edu

If you wish to no longer participate in this study, click here
http://www.surveymonkey.com/optout.aspx

# Appendix F

## Delphi Round I: First Reminder Email

March 3, 2010
Reminder to Complete Survey - A Quality Scorecard for the Administration of Online Education

Dear [FirstName]:

This is a reminder that you have just a few more days to complete the first phase of the research study -- A Quality Scorecard for the Administration of Online Education Programs: A Delphi Study. Your response must be submitted by March 9th at 5pm so that we can move on to the next round. (You must complete the first survey round to move on to the second.)

Please take the time to access the following link. http://www.surveymonkey.com/s.aspx.

If you have any difficulty please contact me at 214.235.6635 at any time. Your responses are very important and make this research process possible.

Thank you for your help.
Sincerely

Kaye Shelton
Ph.D. Candidate, University of Nebraska-Lincoln
Dean, Online Education
Dallas Baptist University

Please note: If you do not wish to receive further emails from us, please click the link below, and you will be automatically removed from our mailing list.
http://www.surveymonkey.com/optout.aspx

# Appendix G

## Delphi Round I: Final Reminder Email

March 7, 2010
To: [Email] From: kaye@dbu.edu

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Subject: Reminder: Quality Online Education Study Survey

Dear [FirstName],

Just a quick reminder that the first round survey will end on Tuesday at 5pm. Please let me know if you have any difficulty with the survey - http://www.surveymonkey.com/s.aspx.

Sincerely,

Kaye Shelton

Please note: If you do not wish to receive further emails from us, please click the link below, and you will be automatically removed from our mailing list.
http://www.surveymonkey.com/optout.aspx

# Appendix H

## Delphi Round I Results: Original IHEP Quality Indicators

| Quality Indicator Determined by IHEP (2000) Study | | | Mean | Standard Deviation | Consensus Level | n |
|---|---|---|---|---|---|---|
| NSTITUTIONAL SUPPORT | **1.** | A documented technology plan that includes electronic security measures (i.e., password protection, encryption, back-up systems) is in place and operational to ensure both quality standards and the integrity and validity of information. | 4.63 | .489 | 100% | |
| | **2.** | The reliability of the technology delivery system is as failsafe as possible. | 4.74 | .492 | 97.6% | 43 |
| | **3.** | A centralized system provides support for building and maintaining the distance education infrastructure. | 4.62 | .730 | 90.4% | 42 |
| | | | | | | |
| COURSE DEVELOPMENT | **4.** | Guidelines regarding minimum standards are used for course development, design, and delivery, while learning outcomes—not the availability of existing technology—determine the technology being used to deliver course content. | 4.71 | .512 | 97.6% | 41 |
| | **5.** | Instructional materials are reviewed periodically to ensure they meet program standards. | 4.69 | .468 | 100% | 42 |
| | **6.** | Courses are designed to require students to engage themselves in analysis, synthesis, and evaluation as part of their course and program requirements. | 4.53 | .592 | 95.3% | 43 |
| | | | | | | |
| TEACHI | **7.** | Student interaction with faculty and other students is an essential characteristic and is facilitated through a variety of ways, including voice-mail and/or e-mail. | 4.71 | .602 | 92.7% | 41 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | **8.** | Feedback to student assignments and questions is constructive and provided in a timely manner. | 4.93 | .261 | 100% | 42 |
| | **9.** | Students are instructed in the proper methods of effective research, including assessment of the validity of resources. | 4.24 | .726 | 83.3% | 42 |
| | | | | | | |
| **COURSE STRUCTURE** | 10. | Before starting an online program, students are advised about the program to determine (1) if they possess the self-motivation and commitment to learn at a distance and (2) if they have access to the minimal technology required by the course design. | 4.42 | .794 | 83.3% | 43 |
| | 11. | Students are provided with supplemental course information that outlines course objectives, concepts, and ideas, and learning outcomes for each course are summarized in a clearly written, straightforward statement. | 4.42 | .762 | 88.4% | 43 |
| | 12. | Students have access to sufficient library resources that may include a “virtual library” accessible through the World Wide Web. | 4.64 | .533 | 97.6% | 42 |
| | 13. | Faculty and students agree upon expectations regarding times for student assignment completion and faculty response. | 4.07 | 1.135 | 76.1% | 42 |
| | | | | | | |
| **STUDEN** | **14.** | Students receive information about programs, including admission requirements, tuition and fees, books and supplies, technical and proctoring requirements, and student support services. | 4.49 | .703 | 88.4% | 43 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | **15.** | Students are provided with hands-on training and information to aid them in securing material through electronic databases, interlibrary loans, government archives, news services, and other sources. | 3.74** | .912 | 66.2%** | 42 |
| | **16.** | Throughout the duration of the course/program, students have access to technical assistance, including detailed instructions regarding the electronic media used, practice sessions prior to the beginning of the course, and convenient access to technical support staff. | 4.42 | .626 | 93% | 43 |
| | **17.** | Questions directed to student service personnel are answered accurately and quickly, with a structured system in place to address student complaints. | 4.63 | .691 | 93% | 43 |
| | | | | | | |
| **FACULTY SUPPORT** | **18.** | Technical assistance in course development is available to faculty, who are encouraged to use it. | 4.63 | .536 | 97.7% | 43 |
| | **19.** | Faculty members are assisted in the transition from classroom teaching to online instruction and are assessed during the process. | 4.55 | .633 | 92.9% | 42 |
| | **20.** | Instructor training and assistance, including peer mentoring, continues through the progression of the online course. | 4.38 | .764 | 88.1% | 42 |
| | **21.** | Faculty members are provided with written resources to deal with issues arising from student use of electronically-accessed data. | 4.00 | .961 | 70% | 40 |
| | | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| **EVALUATION AND ESSMENT** | **22.** | The program's educational effectiveness and teaching/learning process is assessed through an evaluation process that uses several methods and applies specific standards. | 4.67 | .522 | 97.7% | 43 |
| | **23.** | Data on enrollment, costs, and successful/innovative uses of technology are used to evaluate program effectiveness. | 4.02 | .938 | 72.1% | 43 |
| | **24.** | Intended learning outcomes are reviewed regularly to ensure clarity, utility, and appropriateness. | 4.71 | .508 | 97.6% | 42 |

**did not mean guidelines for consensus.

# Appendix I

## Delphi Round I Results: Qualitative Responses

**ADDITONAL CATEGORIES OF QUALITY INDICATORS SUGGESTED BY PANEL**

1. Learning Resources
2. Assessment Strategies
3. Social and Student Engagement
4. Co-curricular Activities
5. Accessibility (ADA)
6. Accessibility in a Global Environment (cost, technology, transferability of course credits)
7. Copyright/Fair Use Compliance
8. Purposeful Use of Multimedia Features
9. Faculty Development
10. Technology Tools
11. Emerging Technology Support for Faculty and Students
12. Academic Technology Integration
13. Technology Literacy
14. Instructional Design
15. Vended Relationships
16. Sustainability and Scalability
17. Institutional Readiness for Distance Learning
18. Strategic Vision and Program Development
19. Program Development
20. School Mission and Vision

**ADDITIONAL QUALITY INDICATORS SUGGESTED BY PANEL**

**INSTITUTIONAL SUPPORT CATEGORY**

1. Appropriate policies are developed, reviewed, and disseminated to all stakeholders.
2. Faculty, staff, and students are supported in the development and use of new technologies and skills.
3. The course delivery technology is considered a mission critical enterprise system and supported as such.
4. The institution provides documented processes and procedures that enable distance learning.
5. Underlying learning managements systems are flexible enough to support emerging technologies, e.g. social networking tools, mobile devices, Web 2.0, etc.
6. Institution maintains system for backup for data availability.
7. Institutions must provide guidance to faculty and students on use of unsupported technologies.
8. The institution makes bookstore services available to students.
9. The institution has defined the strategic value of distance learning to its enterprise and to its relevant parts.

10. The tech plan also needs to consider and address vended relationships and, especially, support via cloud computing. It needs to ensure end to end operability of all systems that support distance learning. Also, "security measures" are generally handled for all campus enterprise systems through an LDAP server which authenticates users.
11. The institution has put in place a governance structure to enable effective and comprehensive decision making related to distance learning.
12. Policies are in place to authenticate that students enrolled in online courses, and receiving college credit are indeed those completing the course work
13. Sustainability and Scalability: A stable support mechanism/financial model to reduce recreating the same course multiple times for example if an instructor leaves the university and there is no agreement governing the intellectual property that would allow the continued use of the course materials.

**COURSE DEVELOPMENT**

1. Current and emerging technologies are evaluated and recommended for online teaching and learning.
2. There is consistency in course development for student retention and quality
3. Instructional design is provided for creation of effective pedagogy for synchronous sessions
4. Policy for Copyright ownerships of course materials exists.
5. Curriculum development is a core responsibility for faculty.
6. Learning objectives describe outcomes that are measurable.
7. Development of online course materials takes into account the changing context of media delivery
8. Selected assessments measure the course learning objectives and are appropriate for an online learning environment.
9. Course objectives provide opportunity for student interaction.
10. Course design promotes both faculty and student engagement.
11. Student-centered instruction is considered during the course-development process.
12. Instructional design is provided for creation of effective pedagogy for both synchronous and asynchronous class sessions

**TEACHING AND LEARNING**

1. Students are provided access to library professionals and resources that help them to deal with the overwhelming amount of online resources.
2. Course material presented in a variety of ways
3. Interactive elements such as video and flash graphics to help engage the students' understanding of key learning objectives
4. Students are provided access to library professionals and resources that help them to deal with the overwhelming amount of online resources.
5. Online courses/programs use one course management platform, creating a single delivery model, and students receive an online instructional orientation to the course management platform

## COURSE STRUCTURE

14. Students ensured all they need for degree is offered in program before enrolling
15. Opportunities/tools provided to encourage student-student collaboration (i.e, web conferencing, instant messaging, etc).
16. Honor code used to enable a culture of accountability
17. Links or explanations of technical support are available in the course.
18. Instructional materials are easily accessible and usable for the student.
19. The course adequately addresses the special needs of disabled students via alternative instructional strategies and/or referral to special institutional resources.
20. Optional synchronous sessions with faculty are offered and archived to be available asynchronously as well, to allow students access to faculty

## STUDENT SUPPORT

1. Automated support tools are available for faculty to provide early intervention to support student success.
2. Efforts are made to engage students with the program & institution
3. Students are instructed in the appropriate ways of communicating with faculty and students
4. Students are instructed in the appropriate ways of enlisting help from the program (this suggestion was accidentally missed and included in Delphi Round V- Support services are designed to build communication and affiliation among the online student population)
5. Students agree and understand the expectations of the program and courses
6. Students should be provided a way to interact with other students in an online community
7. The institution provides guidance to both students and faculty in the use of all forms of technologies used for course delivery
8. Students have access to effective academic, personal, and career counseling
9. Tutoring is available as a learning resource.
10. Minimum technology standards are established and made available to students.
11. Policy and process is in place to support ADA requirements

## FACULTY SUPPORT

1. New learning skills for online teaching and learning are identified.
2. Review of web.2.0 tools and emerging technologies and faculty
3. Workshops are provided for keeping faculty updated in selection and use of tools
4. Faculty are provided on-going professional development related to online teaching and learning
5. Faculty workshops are provided to make them aware of emerging technologies and the selection and use of these tools
6. Clear standards are established for faculty engagement and expectations around online teaching

**EVALUATION AND ASSESSMENT**

1. Online learning should be robustly evaluated using tools widely available, so that faculty and students know what students perceive about the efficacy of online learning and so the institution knows how they compare and how they can improve.
2. A process is in place for the assessment of faculty and student support services
3. Course and program retention is assessed. Results of course evaluations are used as part of faculty/instructor performance evaluations
4. Recruitment and retention are examined and reviewed
5. Evaluation should include evaluation by potential employers
6. Course evaluations collect student feedback on quality of content and effectiveness of instruction.

    a. The relationship between online education programs and institutional mission must be included as a measure.
    b. Program demonstrates compliance and review of accessibility standards (Section 508, etc.)
    c. Student evaluations of course/instructor/program are made available
    d. Course evaluations are examined in relation to faculty performance evaluations.
    e. Aggregation of data to ensure each class is being taught well
    f. Faculty performance is regularly assessed
    g. Alignment of learning outcomes from course to course exists.
    h. Online learning should be robustly evaluated using tools widely available, so that faculty and students know what students perceive about the efficacy of online learning and so the institution knows how they compare and how they can improve. The credentials of the distance education support staff and administration, in terms of years of professional experience and education level as well as type of degree earned (educational technology or general education verses non-education).

# Appendix J

## IRB Approval for Delphi Round II

March 26, 2010

Virginia Shelton
Department of Educational Administration
4105 Wildbriar Ln Mansfield, TX 76063

Jody Isernhagen
Department of Educational Administration
132 TEAC, UNL, 68588-0360

IRB Number: 20091110379 EX
Project ID: 10379
Project Title: A QUALITY SCORECARD FOR THE ADMINISTRATION OF ONLINE EDUCATION PROGRAMS: A DELPHI STUDY

Dear Virginia:

The Institutional Review Board for the Protection of Human Subjects has completed its review of the Request for Change in Protocol submitted to the IRB.

1. It has been approved to add Round 2 survey questions.

We wish to remind you that the principal investigator is responsible for reporting to this Board any of the following events within 48 hours of the event:
* Any serious event (including on-site and off-site adverse events, injuries, side effects, deaths, or other problems) which in the opinion of the local investigator was unanticipated, involved risk to subjects or others, and was possibly related to the research procedures;
* Any serious accidental or unintentional change to the IRB-approved protocol that involves risk or has the potential to recur;
* Any publication in the literature, safety monitoring report, interim result or other finding that indicates an unexpected change to the risk/benefit ratio of the research;
* Any breach in confidentiality or compromise in data privacy related to the subject or others; or
* Any complaint of a subject that indicates an unanticipated risk or that cannot be resolved by the research staff.

This letter constitutes official notification of the approval of the protocol change. You are therefore authorized to implement this change accordingly.

If you have any questions, please contact the IRB office at 472-6965.

Sincerely,

Becky R. Freeman, CIP for the IRB

# Appendix K

## Delphi Round II Survey Instrument

1. Before we examine the suggested revisions to the quality indicators, let's first review the category changes and suggestions. Remember, the original seven categories were: Institutional Support, Faculty Support, Course Development, Teaching and Learning, Student Support, Course Structure and Evaluation and Assessment. Click here to view the original IHEP 24 indicators.

The first category of quality indicators that you reviewed was the *Institutional Support Category*. It has been suggested that this be changed to *Institutional and Technology Support*.

Do you agree or disagree?

- ☐ I Agree
- ☐ I Disagree
- ☐ I believe there should be both a Technology Support category and an Institutional Support category.

Comments

2. The following additional categories were suggested for inclusion in a quality scorecard for online education programs. Remember, the original seven categories were: Institutional Support, Faculty Support, Course Development, Teaching and Learning, Student Support, Course Structure and Evaluation and Assessment.

Please determine each possible category's relevance, or if you believe it should be an individual quality indicator within a category. Please provide any additional comments in the text box below.

| | Definitely Not Relevant (Or Already Listed) | Not Relevant | Slightly Relevant | Relevant | Definitely Relevant | Not a Category/Theme but should be a quality indicator |
|---|---|---|---|---|---|---|
| Learning Resources | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Assessment Strategies | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Social and Student Engagement | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Co-curricular Activities | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Accessibility (ADA) | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |

| | | | | | | |
|---|---|---|---|---|---|---|
| Accessibility in a Global Environment (cost, technology, transferability of course credits) | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Copyright/Fair Use Compliance | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Purposeful Use of Multimedia Features | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Faculty Development | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Technology Tools | ☐ | ☐ | ☐ | ☐ | ☐ | ☑ |
| Emerging Technology | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Support for Faculty and Students | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Academic Technology Integration | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Technology Literacy | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Instructional Design | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Vended Relationships | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Sustainability and Scalability | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Institutional Readiness for Distance Learning | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Strategic Vision and Program Development | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Program Development | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| School Mission and Vision | ☐ | ☑ | ☐ | ☐ | ☐ | ☐ |

Comments

3. Quality Indicator #1 - *A documented technology plan that includes electronic security*

*measures (i.e., password protection, encryption, back-up systems) is in place and operational to ensure both quality standards and the integrity and validity of information.*
The panel determined this indicator to be relevant with Mean=4.63, STDV=.489, N=43, and Consensus=100%.
Several possible revisions were suggested. Please choose the one you feel may best be used for evaluation of an online education program.

1. A documented technology plan that includes electronic security measures (e.g., password protection, encryption, back-up systems) is in place and operational to ensure both quality standards and the integrity and validity of both personal information (login/password and bio information) and academic information.

2. A documented technology plan for delivery of online education which includes security measures (e.g., password protection, encryption, back-up systems) is in place and operational.

3. A set of technology requirements is in place which includes third party vendor applications and electronic security measures (e.g., password protection, encryption, cyber security, etc.).

4. Due to the increasingly ubiquitous nature of technology, technology standards exist for both the online program as well as at the institutional level.

5. A documented technology plan that includes electronic security measures (e.g., password protection, encryption, secure online or proctored exams, etc.) is in place and operational to ensure quality standards, adherence to FERPA and the integrity and validity of information.

6. Keep the statement in its original format.

Comments

4. Quality Indicator #2 - *The reliability of the technology delivery system is as failsafe as possible.*
The panel determined this indicator to be relevant with Mean=4.74, STDV=.492, N=43, and Consensus=97.6%.
Several possible revisions were suggested. Please choose the one you feel may best be used for evaluation of an online education program.

1. The technology delivery systems are highly reliable and interoperable.

2. The reliability of the technology delivery system has the necessary processes in place to make it as failsafe as possible.

3.The technology delivery systems are highly reliable and operable with measurable standards being utilized such as system downtime tracking or task benchmarking.

4.The technology systems used are student friendly and very reliable.

☐ 5. Keep the statement in its original format.

Comments

5. Quality Indicator #3 - *A centralized system provides support for building and maintaining the distance education infrastructure.*
The panel determined this indicator to be relevant with Mean=4.62, STDV=.730, N=42, and Consensus=90.4%.
Several possible revisions were suggested. Please choose the one you feel may best be used for evaluation of an online education program.

☐ 1.A centralized technology system provides support for building and maintaining the distance education infrastructure and quality oversight.

☐ 2. A centralized technology system provides flexible support for building and maintaining the distance education (online) infrastructure.

☐ 3. A centralized technology system provides support for building and maintaining the distance education infrastructure which is guided by input from both faculty and administrators and the institution's strategic plan.

☐ 4. Technology support, faculty training and student services is centralized.

☐ 5. A solid centralized technology infrastructure provides support for maintaining the distance education platform.

☐ 6. A suite of distributed technology systems provides support for building and maintaining the distance education infrastructure.

☐ 7. Keep the statement in its original format.

Comments

6. Quality Indicator #4 - *Guidelines regarding minimum standards are used for course development, design, and delivery, while learning outcomes—not the availability of existing technology—determine the technology being used to deliver course content.*
The panel determined this indicator to be relevant with Mean 4.71, STDV=.512, N=43, and Consensus=97.6%.
Several possible revisions were suggested. Please choose the one you feel may best be used for evaluation of an online education program.

☐ 1. Guidelines regarding minimum standards are used for course development, design, and delivery, while learning outcomes—as opposed to the availability of existing technology—determine the technology being used to deliver course content.

☐ 2. Guidelines regarding minimum standards are used for course development, design, and delivery, while learning outcomes determine how technology is used to deliver course content.

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

☐ 4. Guidelines regarding minimum standards are used for course development, design, and delivery, while learning outcomes—as opposed to the availability of existing technology—determine the technology being used to deliver course content.

☐ 5. Guidelines regarding quality standards are used for course development, design, delivery and assessment, while learner experience or pedagogical intent—not the availability of existing technology—determine the technology being used to deliver course content.

☐ 6. Divide the statement into two different quality indicators: 1) Guidelines regarding minimum agreed-upon standards are used for course development, design, and delivery. 2) Learning outcomes determine the technology being used to deliver course content.

☐ 7. Divide the statement into two different quality indicators: 1) Guidelines regarding minimum standards are used for course development, design, and delivery. 2.) Learning outcomes—not the availability of existing technology—determine the technology being used to deliver course content.

☐ 8. Divide the statement into two different quality indicators 1)Guidelines regarding minimum standards are used for course development, design, and delivery of online instruction. 2)Technology is used as a tool to achieve learning outcomes in delivering course content.

☐ 9. Guidelines regarding institutional standards are used for course design, development, and delivery. Learning outcomes guide the selection and use of technology to deliver course content.

☐ 10. Keep the statement in its original format.

Comments

7. Quality Indicator #5 - *Instructional materials are reviewed periodically to ensure they meet program standards.*

The panel determined this indicator to be relevant with Mean=4.69, STDV=.468, N=42, and Consensus=100%.

Several possible revisions were suggested. Please choose the one you feel may best be used for evaluation of an online education program.

☐ 1. Instructional materials are reviewed regularly to ensure they meet program

standards.

2. Instructional materials are peer-reviewed (internally and externally) periodically to ensure they meet program standards.

3. Online course materials are reviewed periodically to ensure they meet program standards.

4. Instructional materials are reviewed periodically by peers (faculty) and instructional designers to ensure they meet program standards.

5. Instructional materials are reviewed periodically to ensure they meet program standards with the recommended improvements implemented.

6. Instructional materials are reviewed periodically according to a set time frame to ensure they meet program standards.

7. Instructional materials are reviewed periodically to ensure that they meet program standards and that the information is transparent to students.

8. Instructional materials, course syllabus and learning outcomes are reviewed periodically to ensure they meet program standards.

9. Instructional materials are reviewed periodically to ensure they meet outcome assessments.

10. Instructional materials are reviewed continuously to ensure they meet program standards.

11. Keep the statement in its original format.

Comments

8. Quality Indicator #6 - *Courses are designed to require students to engage themselves in analysis, synthesis, and evaluation as part of their course and program requirements.*
The panel determined this indicator to be relevant with Mean=4.53, STDV.592, N=43, and Consensus=95.3%.
Several possible revisions were suggested. Please choose the one you feel may best be used for evaluation of an online education program.

1. Courses should be designed to include a balance of learning strategies and approaches.

2. Courses are designed so that students develop the necessary knowledge and skills to meet learning objectives at the course and program level. These may include engagement via analysis, synthesis and evaluation.

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

☐ 4. Courses are designed to engage students in analysis, synthesis, and evaluation as part of course and program requirements.

☐ 5. Courses are designed to allow students to engage themselves in analysis, synthesis, assessment and mastery as part of their program requirements

☐ 6. Keep the statement in its original format.

Comments

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

The panel determined this indicator to be relevant with Mean=4.71, STDV=.602, N=41, and Consensus=92.7%.

Several possible revisions were suggested. Please choose the one you feel may best be used for evaluation of an online education program.

☐ 1. Student interaction with faculty and other students is an essential characteristic and is facilitated through a variety of ways.

☐ 2. Student-to-Student interaction and Faculty-to-student interaction are essential characteristics and are facilitated through a variety of ways.

☐ 3. Student interaction with faculty and other students is an essential characteristic and is facilitated through a variety of ways, including voice mail, e-mail, blogs, wikis, threaded discussions, instant messaging, social networks, and virtual environments.

☐ 4. Student interaction with faculty and other students is an essential characteristic and is facilitated through a variety of ways both synchronous and asynchronous.

☐ 5. Student interaction with faculty and other students is essential and is facilitated through a variety of ways including synchronous (phone, chat, webconferencing, etc.) and asynchronous (email, LMS mail, discussion forum, etc.) methods.

☐ 6. Student interaction with faculty and other students is essential and is facilitated through a variety of approved institutional resources and/or channels such as voice communication tools, secured LMS forums, and/or e-mail.

☐ 7. Student interaction with faculty, other students, texts, media objects, technologies and content of an online course is valuable and can be facilitated in a variety of ways within a learning management system as well as through peripherals and linkages.

☐ 8. Student interaction with faculty and other students is an essential characteristic and is facilitated through a variety of ways including synchronous mediums such as live classroom software, Second Life, asynchronous voice tools and email.

☐ 9. Student interaction with faculty and other students is an essential characteristic

and is facilitated through a variety of ways, including online tools, voice-mail and/or e-mail.

10. Courses are designed to provide ample opportunity for student interaction with faculty and other students.

11. Keep the statement in its original format.

Comments

10. Quality Indicator #8 - *Feedback to student assignments and questions is constructive and provided in a timely manner.*

The panel determined this indicator to be relevant with Mean=4.93, STDV=.261, N=42, and Consensus=100%.

Several possible revisions were suggested. Please choose the one you feel may best be used for evaluation of an online education program.

1. Feedback on student assignments and questions is constructive and provided in a timely manner.

2. Feedback on student assignments and questions is constructive and provided in a timely manner (as indicated in the course syllabus).

3. Feedback on student assessment activities and solutions to questions are provided in a timely manner to support student improvement.

4. To facilitate student retention and student success, feedback on student assignments and questions is constructive, and provided daily using common technology tools readily available to faculty and students.

5. Feedback on student assignments and questions is constructive and provided in a timely manner and includes the use of virtual/intelligent tutoring advances.

6. Feedback to student assignments (e.g., projects, reports, group activities, etc.) and questions is constructive and provided in a timely manner.

7. Keep the statement in its original format.

Comments

11. *Quality Indicator #9* - Students are instructed in the proper methods of effective research, including assessment of the validity of resources.

The panel determined this indicator to be relevant with Mean=4.24, STDV=.726, N=42, and Consensus=83.3%.

Several possible revisions were suggested. Please choose the one you feel may best be used for evaluation of an online education program.

☐ 1. Students are engaged in new digital/media literacy skill development, including assessment of the validity of resources.

☐ 2. Students learn appropriate methods for effective research, including assessment of the validity of resources and the ability to master resources in an online environment.

☐ 3. Students are instructed in the proper methods of effective research in their discipline of study, including assessment of the validity of sources.

☐ 4. Students learn appropriate methods for effective research, including assessment of the validity of resources and the ability to master resources in an online environment.

☐ 5. Divide into two statements: Students are instructed in the methods of effective research if applicable to their discipline. Students are instructed in methods of information literacy, including assessment of the validity of sources and proper citation.

☐ 6. Instruction is delivered using proven instructional methodologies based on effective research, and assessment and evaluation is conducted using the latest tools for student authentication.

☐ 7. Keep the statement in its original format.

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

The panel determined this indicator to be relevant with Mean=4.42, STDV=.794, N=43, and Consensus=83.3%.

Several possible revisions were suggested. Please choose the one you feel may best be used for evaluation of an online education program.

☐ 1. Before an online course begins, students are advised that self-motivation and commitment will contribute to their success as well as they must have access to the minimal technology required by the course design.

☐ 2. Students should be given assistance or orientation for becoming equipped for taking online courses.(Student Support Category)

☐ 3. Before starting an online program, students are advised about the program to determine (1) if they possess the self-motivation and commitment to learn at a distance,(2) if they have access to the minimal technology required by the course design, and (3) if they have mastery of the minimal technology or the opportunity to master the skills prior to the start of the course.

☐ 4. Students are required to complete a self-assessment to measure student readiness factors, including minimal technology access, and technical competency; and upon completion, students are provided with an orientation on how to login and navigate an online course site (Student Support Category).

☐ 5. Student readiness: Before starting an online program, students are advised about

the program to determine (1) if they possess the self-motivation and commitment to learn at a distance and (2) if they have access to the minimal technology required by the course design. (Student Support Category)

6. Before starting an online program, students are advised about the requirements of self-motivation and commitment that contribute to student success and about the minimal technology requirements required by the course design (Student Support Category).

7. Divide into two questions: 1) Before starting an online program, students are advised about the program to determine if they possess the self-motivation and commitment to learn at a distance. (Student Support Category) 2) Before starting an online program, students are advised about the program to determine if they have access to the minimal technology required by the course design (Course Development Category).

Keep the statement in its original format.

Comments

13. Quality Indicator #11 - *Students are provided with supplemental course information that outlines course objectives, concepts, and ideas, and learning outcomes for each course are summarized in a clearly written, straightforward statement.*
The panel determined this indicator to be relevant with Mean=4.42, STDV=.762, N=43, and Consensus=88.4%.
Several possible revisions were suggested. Please choose the one you feel may best be used for evaluation of an online education program.

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

2. Students are provided with a list of the course objectives, a description of the fundamental concepts and ideas addressed in the course, and the learning outcomes students are expected to achieve are clearly written.

3. Students are provided with course information that outlines course objectives, concepts, and ideas, and learning outcomes for each course are summarized in a clearly written, straightforward statement. (Course Development Category)

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

5. Students are provided with course information that outlines course objectives, concepts, and ideas, and learning outcomes for each course are summarized in a clearly written, straightforward statement. For example, the following sections could be

provided: 1. WELCOME! 2. Contact Information 3. Course Overview & Objectives 4. Readings and Materials 5. Course Learning Activities 6. How you will be Evaluated 7. My Expectations 8. Course Schedule 9. YOUR NEXT STEPS

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

☐ 7. The online course site includes a syllabus outlining course objectives, learning outcomes, evaluation methods, textbook information, and other related course information, making course requirements transparent at time of registration.

☐ 8. Prior to the beginning of the course, students are provided with supplemental course information that outlines course objectives, concepts, and ideas, and learning outcomes for each course are summarized in a clearly written, straightforward statement.

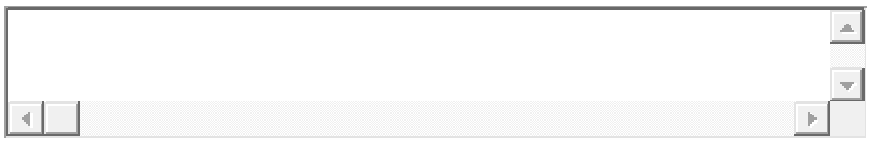
☐ 9. Students are provided with supplemental course information that outlines course objectives, concepts, ideas, and learning outcomes, all of which are summarized in plain language and are available in multiple alternative formats.

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

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

☐ 12. Keep the statement in its original format.

Comments



14. Quality Indicator #12 - *Students have access to sufficient library resources that may include a "virtual library" accessible through the World Wide Web.*
The panel determined this indicator to be relevant with Mean=4.64, STDV=.533, N=42, and Consensus=97.6%.
Several possible revisions were suggested. Please choose the one you feel may best be used for evaluation of an online education program.

☐ 1. Students have access to equivalent library resources that may include a "virtual library" and library personnel accessible through the World Wide Web (e.g., synchronous chat, etc.).

☐ 2. Students have access to sufficient library resources that may include a "virtual library" accessible through the Internet.

☐ 3. Students have access to sufficient library resources that include a "virtual library" accessible online.

☐ 4. Students have access to sufficient library resources that may include a “virtual library” and other online resources accessible through the Internet.

☐ 5. Students have access to sufficient library resources online and in print.

☐ 6. Students have online access to sufficient library resources for their program of study.

☐ 7. Students have access to sufficient library resources that includes a “virtual library” with online databases accessible through the internet.

☐ 8. Students have access to an online librarian and digital library resources as part of an online course or program.

☐ 9. The institution ensures that all distance education students, regardless of where they are located, have access to library/learning resources adequate to support the courses they are taking (SACS statement).

☐ 10. Students have access to necessary library resources; all required library materials, whether campus- or web-based, will be fully accessible to all students regardless of disability status.

☐ 11. Students have access to sufficient library resources like virtual libraries, multimedia objects, and open educational resources via the web.

☐ 12. Students have access to sufficient library resources through the Internet.

☐ 13.Keep the statement in its original format.

Comments

15. Quality Indicator #13 - *Faculty and students agree upon expectations regarding times for student assignment completion and faculty response.*

The panel determined this indicator to be relevant with Mean=4.07, STDV=1.135, N=42, and Consensus=76.1%.

Several possible revisions were suggested. Please choose the one you feel may best be used for evaluation of an online education program.

☐ 1. Faculty clearly articulate (or explain) expectations regarding times for student assignment completion and faculty response.

☐ 2. Faculty and students agree upon expectations regarding times for student assignment completion, how assignments will be submitted, and faculty response.

☐ 3. Faculty clearly design, define and state expectations regarding times for student assignment completion and faculty response.

☐ 4. Faculty clearly articulate expectations course expectations such as times for student assignment completion, student participation and faculty response.

☐ 5. Faculty provide students with expectations regarding times for student assignment

completion and when faculty will provide grades and feedback.

☐ 6. The instructor clearly articulates the expectations for student regarding assignment due dates and faculty response times.

☐ 7. Course syllabus is clear on course communication policies and reasonable faculty response time to student assignments or questions.

☐ 8. Communication expectations are clear: faculty and students agree upon expectations regarding times for student assignment completion and faculty response to student communication.

☐ 9. No synchronous assignments are required, but are available by mutual agreement (online office hours, chat or other software for small groups). Faculty will clearly state their email and discussion board post time response window, and also indicate their "down time." Assignment completion will be extended if the campus server is down for more than several hours, goes out during an online exam, or if students at a distance are impacted by local conditions (weather, disaster, etc.).

☐ 10. Expectations for student assignment completion and faculty response are clearly outlined in the course syllabus.

☐ 11. Faculty provide clear expectations regarding times for student assignment completion and faculty response.

☐ 12. Expectations regarding times for student assignment and faculty response are clear.

☐ 13. Expectations for student assignment completion, grade policy and faculty response are clearly provided in the course syllabus.

☐ 14. Keep the statement in its original format.

Comments

16. Quality Indicator #14 - *Students receive information about programs, including admission requirements, tuition and fees, books and supplies, technical and proctoring requirements, and student support services.*
The panel determined this indicator to be relevant with Mean=4.49, STDV=.703, N=43, and Consensus=88.4%
Several possible revisions were suggested. Please choose the one you feel may best be used for evaluation of an online education program.

☐ 1. Students receive (or have access to) information about programs, including admission requirements, tuition and fees, books and supplies, technical and proctoring requirements, and student support services prior to admission and course registration.

☐ 2. Prior to enrolling and throughout the course/ program students receive

information about programs, including admission requirements, tuition and fees, books and supplies, technical and proctoring requirements, and student support services.

☐ 3. Relevant program and institutional information is accessible to students. This information includes admission requirements, tuition and fees, books and supplies, technical and proctoring requirements, and student support services.

☐ 4. Prior to paying any application or other frees, students receive information about programs, including admission requirements, tuition and fees, books and supplies, technical and proctoring requirements, and student support services.

☐ 5. Online student services information about programs including application, counseling, tutoring, library services, financial aid, and other student support services is readily available through web links in the course.

☐ 6. Keep the statement in its original format.

Comments

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

The panel determined this indicator to not be significantly relevant with Mean=3.74, STDV=.912, N=42, and Consensus=66.2%.

Several possible revisions were suggested. Please choose the one you feel may best be used for evaluation of an online education program.

☐ 1. Students are provided with virtual or electronic training and information to aid them in securing material through electronic databases, interlibrary loans, government archives, news services, and other sources.

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

☐ 3. If desired or warranted, students are provided with accessible training and information to aid them in securing material through electronic databases, interlibrary loans, government archives, news services, and other sources.

☐ 4. Students are provided access to librarians.

☐ 5. Students are provided with training and information literacy for securing material through electronic databases, interlibrary loans, government archives, news services, and other sources.

☐ 6. Students are provided with tutorials and information to aid them in securing material through electronic databases, interlibrary loans, government archives, news services, and other sources.

7. Online library services information is provided to students via web links.

8. The institution provides orientation to distance education students concerning available student resources and how to access and use them.

9. Students are provided with training and information, in a variety of formats, to aid them in securing material through electronic databases, interlibrary loans, government archives, news services, and other sources.

10. Students are provided with online assistance and information to aid them in securing material through electronic databases, interlibrary loans, government archives, news services, and other sources.

11. Students are provided with access to training and information they will need to secure required materials through electronic databases, interlibrary loans, government archives, new services and other sources.

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

13. This statement is redundant with Quality Indicator #12, "Students have access to sufficient library resources that may include a "virtual library" accessible through the World Wide Web."

Comments

18. Quality Indicator #16 - *Throughout the duration of the course/program, students have access to technical assistance, including detailed instructions regarding the electronic media used, practice sessions prior to the beginning of the course, and convenient access to technical support staff.*

The panel determined this indicator to be relevant with Mean=4.42, STDV=.626, N=43, and Consensus=93%.

Several possible revisions were suggested. Please choose the one you feel may best be used for evaluation of an online education program.

1. Throughout the duration of the course/program, students have access to technical assistance, including detailed instructions regarding the electronic media used, and convenient access to technical support staff.

2. Throughout the duration of the course/program, students have access to technical assistance from technical support staff.

3. Throughout the duration of the course/program, students have access to appropriate technical assistance and technical support staff.

4. Students have access to technical assistance provided by a help desk, rather than the instructor.

5. The opportunity to become familiar with course management systems should be part of an online orientation.

Comments

19. Quality Indicator #17 - *Questions directed to student service personnel are answered accurately and quickly, with a structured system in place to address student complaints.*
The panel determined this indicator to be relevant with Mean=4.63, STDV=.691, N=43, and Consensus=93%.
Several possible revisions were suggested. Please choose the one you feel may best be used for evaluation of an online education program.

1. Online courses should provide information for contacting Student Support Services with questions or concerns.

2. Student support personnel are available to address student questions, problems, bug reporting, and complaints.

3. Keep the statement in its original format.

Comments

20. Quality Indicator #18 - *Technical assistance in course development is available to faculty, who are encouraged to use it.*
The panel determined this indicator to be relevant with a Mean 4.63, STDV=.536, N=43, and Consensus=97.7%.
Several possible revisions were suggested. Please choose the one you feel may best be used for evaluation of an online education program.

1. Faculty are paired with course designers who assist, support, and guide faculty in course development.

2. Technical and pedagogical assistance in course development is available to faculty, who are encouraged to use it.

3. Technical assistance in course development is available to faculty and professional development or certification training is required to ensure quality and standards.

4. Institutional instructional design and support services are provided for technology integration and course development to faculty who are encouraged to use the services.

5. Instructional design and technology support in course development and delivery

is available to faculty who are encouraged to use it.

6. A faculty development program that supports course development is required.

7. Keep the statement in its original format.

8. Combine #18 and #19 - Technical assistance in course development and assistance with the transition to teaching online is provided. (#19 - Faculty members are assisted in the transition from classroom teaching to online instruction and are assessed during the process.)

Comments

21. Quality Indicator #19 - *Faculty members are assisted in the transition from classroom teaching to online instruction and are assessed during the process.*
The panel determined this indicator to be relevant with Mean=4.55, STDV=.633, N=42, and Consensus=92.9%.
Several possible revisions were suggested. Please choose the one you feel may best be used for evaluation of an online education program.

1. Institution provides Faculty members assistance with teaching in the online classroom and assess/evaluate online teaching.

2. Faculty members are assisted in the transition from classroom teaching to online instruction.

3. Faculty members are provided mandatory training prior to developing their first online course.

4. Faculty members are assisted with pedagogical and technological issues that ensue in the transition from classroom teaching to online instruction. The effectiveness of the support provided is assessed during the process.

5. Online faculty must complete a college-specific orientation to teaching online and the college must provide ongoing faculty development and support.

6. Faculty members are required to receive training prior to teaching an online course and much demonstrate minimum proficiency has been achieved.

7. Faculty members are assisted in the transition from classroom teaching to online instruction.

8. Faculty members are assisted in the transition from classroom teaching to online instruction and are assessed according to institutional practices for evaluation.

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

10. Keep the statement in its original format.

☐ 11. Combine #18 and #19 - Technical assistance in course development and assistance with the transition to teaching online is provided. (#18 Technical assistance in course development is available to faculty, who are encouraged to use it).

☐ 12. Combine #19 and #20 Faculty members are trained and assisted in blended and online course development and ongoing delivery, with opportunity for peer mentoring. (#20 - Instructor training and assistance, including peer mentoring, continues through the progression of the online course).

Comments

22. Quality Indicator #20 - *Instructor training and assistance, including peer mentoring, continues through the progression of the online course.*
The panel determined this indicator to be relevant with Mean=4.38, STDV=.764, N=42, and Consensus=88.1%.
Several possible revisions were suggested. Please choose the one you feel may best be used for evaluation of an online education program.

☐ 1. Instructor training and assistance, including peer mentoring (if desired by the faculty member), continues through the progression of the online course.

☐ 2. Instructor training and assistance, including peer mentoring, available through the progression of the online course.

☐ 3. Instructor training and assistance, including peer mentoring, continues through the delivery of a faculty member's first online course.

☐ 4. Instructors are prepared to teach distance education courses and the institution ensures faculty receive training, assistance and support at all times during the development and delivery of courses.

☐ 5. Keep the statement in its original format.

☐ 6. Combine #19 and #20 - Faculty members are trained and assisted in blended and online course development and ongoing delivery, with opportunity for peer mentoring (#19 Faculty members are assisted in the transition from classroom teaching to online instruction and are assessed during the process).

Comments

23. Quality Indicator #21 - *Faculty members are provided with written resources to deal with issues arising from student use of electronically-accessed data.*
The panel determined this indicator to be relevant (just barely) with Mean=4.00,

STDV=.961, N=40, and Consensus=70%.
Several possible revisions were suggested. Please choose the one you feel may best be used for evaluation of an online education program.

1. Faculty members are provided with resources to deal with issues arising from student use of electronically-accessed data (such as plagiarism or copyright violations.

2. Faculty members are provided with online resources to deal with issues arising from student use of electronically-accessed data.

3. Faculty members are provided with resources and are skilled to deal with issues arising from student use of electronically-accessed data.

4. Faculty members are provided with current institutional policies to deal with issues arising from student use of electronically-accessed data.

5. Faculty receive training and materials related to Fair Use, plagiarism, and other relevant legal and ethical concepts.

6. Faculty members are provided with resources to deal with issues arising from student use of electronically-accessed data.

7. Faculty members are provided with both written and support staff resources to deal with issues arising from student use of electronically-accessed data.

8. Faculty are provided with netiquette policies and procedures in dealing with issues arising from student use of electronically-accessed data.

9. Faculty members have the resources and procedures they need in order to deal with issues arising from student use of electronic data and information.

10. Faculty members are provided with a variety of resources, in multiple formats, to deal with issues arising from student use of electronically-accessed data Including a focus on students who have disabilities.

11. Faculty members are provided with statistical data in order to assist them in dealing with student use of learning resources to facilitate early intervention and student success.

12. Keep the statement in its original format.

Comments

24. Quality Indicator #22 - *The program's educational effectiveness and teaching/learning process is assessed through an evaluation process that uses several methods and applies specific standards.*
The panel determined this indicator to be relevant with Mean=4.67, STDV=.522, N=43, and Consensus=97.7%.

Several possible revisions were suggested. Please choose the one you feel may best be used for evaluation of an online education program.

1. The program's educational effectiveness and teaching/learning process is assessed through an evaluation process that uses several methods and applies specific standards (should be similar to the process used for traditional programs).

2. The program is assessed through an evaluation process that applies specific established standards.

3. The program's educational effectiveness and teaching/learning process for each area of study is assessed through an evaluation process that uses several methods and applies specific standards.

4. The program's educational effectiveness and teaching/learning process (including learning outcomes) is assessed through an evaluation process that uses several methods and applies specific standards.

5. Keep the statement in its original format.

Comments

25. Quality Indicator #23 - *Data on enrollment, costs, and successful/innovative uses of technology are used to evaluate program effectiveness.*
The panel determined this indicator to be relevant with Mean=4.02, STDV=.938, N=43, and Consensus=72.1%.
Several possible revisions were suggested. Please choose the one you feel may best be used for evaluation of an online education program.

1. Data on enrollment, costs, and learning outcomes are used to evaluate program effectiveness.

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

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

4. Data on enrollment, costs, learning outcomes, successful /innovative uses of technology and other factors (i.e., administrative support, how a program fits in the strategic framework of institution, faculty support) are used to evaluate program effectiveness.

5. Data on enrollment, costs, revenue, program design and successful/innovative uses of technology are used to evaluate program effectiveness and success.

6. Data is used for program assessment based upon program goals.

7. A variety of information-academic and administrative - is used to regularly and

frequently evaluate program effectiveness and to guide changes toward continual improvement.

☐ 8. Keep the statement in its original format.

Comments

26. Quality Indicator #24 - *Intended learning outcomes are reviewed regularly to ensure clarity, utility, and appropriateness.*
The panel determined this indicator to be relevant with Mean=4.71, STDV=.508, N=42, and Consensus=97.6%.
Several possible revisions were suggested. Please choose the one you feel may best be used for evaluation of an online education program.

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

☐ 2. Intended learning outcomes at the course and program level are reviewed regularly to ensure clarity, utility, and appropriateness.

☐ 3. Intended learning outcomes are reviewed regularly to ensure clarity, utility, and appropriateness and changes are made based upon review.

☐ 4. Intended learning outcomes are reviewed regularly to ensure clarity, utility, and appropriateness including attention to cross-cultural issues, and user-friendliness.

☐ 5. Keep the statement in its original format.

Comments

27. The following statements were suggested as additional quality indicators by members of the panel in the area of *Institutional Support/Technology Support*. Please evaluate each statement for relevance. The category or theme can be modified at a later point in the research study, therefore, please concentrate on the individual elements of quality. Click here to view the IHEP 24 indicators you have already evaluated.

| | Definitely Not Relevant (Or Already Listed) | Not Relevant | Slightly Relevant | Relevant | Definitely Relevant |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| Appropriate policies are developed, reviewed, and disseminated to all stakeholders. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Faculty, staff, and students are supported in the development and use of new technologies and skills. | ☐ | ☐ | ☐ | ☐ | ☐ |
| The course delivery technology is considered a mission critical enterprise system and supported as such. | ☐ | ☐ | ☐ | ☐ | ☐ |
| The institution provides documented processes and procedures that enable distance learning. | ☑ | ☐ | ☐ | ☐ | ☐ |
| Underlying learning managements systems are flexible enough to support emerging technologies, e.g. social networking tools, mobile devices, Web 2.0, etc. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Institution maintains system backup for data availability. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Institutions must provide guidance to faculty and students on use of unsupported technologies. | ☐ | ☐ | ☐ | ☐ | ☐ |
| The institution makes bookstore services available to students. | ☐ | ☐ | ☐ | ☐ | ☐ |
| The institution has defined the strategic value of distance learning to its enterprise and to its relevant parts. | ☐ | ☐ | ☐ | ☐ | ☐ |
| The tech plan also needs to consider and address vended relationships and, especially, support via cloud computing. It needs to ensure end to end operability of all systems that support distance learning. Also, “security measures” are generally handled for all campus enterprise systems through an LDAP server which authenticates users. | ☐ | ☐ | ☐ | ☐ | ☐ |
| The institution has put in place a governance structure to enable effective and comprehensive decision making related to distance learning. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Policies are in place to authenticate that students enrolled in online courses, and receiving college credit are indeed those completing the course work. | ☑ | ☐ | ☐ | ☐ | ☐ |
| Sustainability and Scalability A stable support mechanism/financial model to | ☐ | ☐ | ☐ | ☐ | ☐ |

reduce recreating the same course multiple times for example if the an instructor leaves the university and there is no agreement governing the intellectual property that would allow the continued use of the course.

28. The following statements were suggested as additional quality indicators by members of the panel in the area of *Course Development*. Please evaluate each statement for relevance. The category or theme can be modified at a later point in the research study, therefore, please concentrate on the individual elements of quality. Click here to view the IHEP 24 indicators you have already evaluated.

| | Definitely Not Relevant (Or Already Listed) | Not Relevant | Slightly Relevant | Relevant | Definitely Relevant |
|---|---|---|---|---|---|
| Current and emerging technologies are evaluated and recommended for online teaching and learning. | ○ | ○ | ○ | ○ | ○ |
| There is consistency in course development for student retention and quality. | ○ | ○ | ○ | ○ | ○ |
| Instructional design is provided for creation of effective pedagogy for synchronous sessions. | ○ | ○ | ○ | ○ | ○ |
| Policy for Copyright ownerships of course materials exists. | ○ | ○ | ○ | ○ | ○ |
| Curriculum development is a core responsibility for faculty. | ○ | ○ | ○ | ○ | ○ |
| Learning objectives describe outcomes that are measurable. | ○ | ○ | ○ | ○ | ○ |
| Development of online course materials takes into account the changing context of media delivery. | ○ | ○ | ○ | ○ | ○ |
| Selected assessments measure the course learning objectives and are appropriate for an online learning environment. | ○ | ○ | ○ | ○ | ○ |
| Course objectives provide opportunity for student interaction. | ○ | ○ | ○ | ○ | ○ |
| Course design promotes both faculty and student engagement. | ○ | ○ | ○ | ○ | ○ |
| Student-centered instruction is considered during the course-development process. | ○ | ○ | ○ | ○ | ○ |

| | | | | | |
|---|---|---|---|---|---|
| Instructional design is provided for creation of effective pedagogy for both synchronous and asynchronous class sessions. | ☐ | ☐ | ☐ | ☐ | ☐ |

**29.** The following statements were suggested as additional quality indicators by members of the panel in the area of *Teaching and Learning*. Please evaluate each statement for relevance. The category or theme can be modified at a later point in the research study, therefore, please concentrate on the individual elements of quality. Click here to view the IHEP 24 indicators you have already evaluated.

| | Definitely Not Relevant (Or Already Listed) | Not Relevant | Slightly Relevant | Relevant | Definitely Relevant |
|---|---|---|---|---|---|
| Students are provided access to library professionals and resources that help them to deal with the overwhelming amount of online resources. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Course material presented in a variety of ways. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Interactive elements such as video and flash graphics to help engage the students' understanding of key learning objectives. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Students are provided access to library professionals and resources that help them to deal with the overwhelming amount of online resources. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Online courses/programs use one course management platform, creating a single delivery model, and students receive an online instructional orientation to the course management platform. | ☐ | ☐ | ☐ | ☐ | ☐ |

30. The following statements were suggested as additional quality indicators by members of the panel in the area of *Course Structure*. Please evaluate each statement for relevance. The category or theme can be modified at a later point in the research study, therefore, please concentrate on the individual elements of quality. Click here to view the IHEP 24 indicators you have already evaluated.

| | Definitely Not Relevant (Or Already Listed) | Not Relevant | Slightly Relevant | Relevant | Definitely Relevant |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| Students ensured all they need for degree is offered in program before enrolling. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Opportunities/tools provided to encourage student-student collaboration (i.e, web conferencing, instant messaging, etc). | ☐ | ☐ | ☐ | ☐ | ☐ |
| Honor code used to enable a culture of accountability | ☐ | ☐ | ☐ | ☐ | ☐ |
| Links or explanations of technical support are available in the course. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Instructional materials are easily accessible and usable for the student. | ☐ | ☐ | ☐ | ☐ | ☐ |
| The course adequately addresses the special needs of disabled students via alternative instructional strategies and/or referral to special institutional resources. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Optional synchronous sessions with faculty are offered and archived to be available asynchronously as well, to allow students access to faculty. | ☐ | ☐ | ☐ | ☐ | ☐ |

31. The following statements were suggested as additional quality indicators by members of the panel in the area of *Student Support*. Please evaluate each statement for relevance. The category or theme can be modified at a later point in the research study, therefore, please concentrate on the individual elements of quality. Click here to view the IHEP 24 indicators you have already evaluated.

| | Definitely Not Relevant (Or Already Listed) | Not Relevant | Slightly Relevant | Relevant | Definitely Relevant |
|---|---|---|---|---|---|
| Students are provided relevant information: isbn numbers, suppliers, etc. and delivery modes for all required; instructional materials: digital format, e-packs, print format, etc. to ensure easy access. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Students should be provided a way to interact with other students in an online community. | ☐ | ☐ | ☐ | ☐ | ☐ |
| While technologies may not be supported centrally (like available in the cloud or openly), there needs to guidance on how these tools will be supported and the ramifications to students. | ☐ | ☐ | ☐ | ☐ | ☐ |

| | | | | | |
|---|---|---|---|---|---|
| Student support services are provided for outside the classroom such as academic advising, financial assistance, peer support, etc | ☐ | ☐ | ☐ | ☐ | ☐ |
| Program demonstrates a student-centered focus rather than trying to fit service to the distance education student in on-campus student services. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Automated support tools are available for faculty to provide early intervention to support student success. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Efforts are made to engage students with the program and institution. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Students are instructed in the appropriate ways of communicating with faculty and students. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Students are instructed in the appropriate ways of enlisting help from the program | | | | | |
| Support services are designed to build communication and affiliation among the online student population. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Students agree and understand the expectations of the program and courses. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Students should be provided a way to interact with other students in an online community | ☐ | ☐ | ☐ | ☐ | ☐ |
| The institution provides guidance to both students and faculty in the use of all forms of technologies used for course delivery. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Students have access to effective academic, personal, and career counseling. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Tutoring is available as a learning resource. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Minimum technology standards are established and made available to students. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Policy and process is in place to support ADA requirements. | ☐ | ☐ | ☐ | ☐ | ☐ |

32. The following statements were suggested as additional quality indicators by members of the panel in the area of *Faculty Support*. Please evaluate each statement for relevance. The category or theme can be modified at a later point in the research study, therefore, please concentrate on the individual elements of quality. Click here to view the IHEP 24 indicators you have already evaluated.

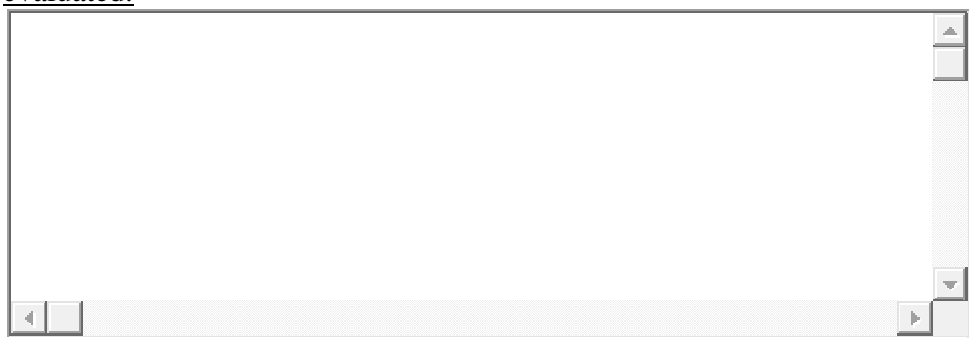
| | Definitely Not Relevant (Or Already Listed) | Not Relevant | Slightly Relevant | Relevant | Definitely Relevant |
|---|---|---|---|---|---|
| New learning skills for online teaching and learning are identified. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Review of web.2.0 tools and emerging technologies and faculty. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Workshops are provided for keeping faculty updated in selection and use of tools. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Faculty are provided on-going professional development related to online teaching and learning. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Faculty workshops are provided to make them aware of emerging technologies and the selection and use of these tools. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Clear standards are established for faculty engagement and expectations around online teaching. | ☐ | ☐ | ☐ | ☐ | ☐ |

33. The following statements were suggested as additional quality indicators by members of the panel in the area of *Evaluation and Assessment*. Please evaluate each statement for relevance. The category or theme can be modified at a later point in the research study, therefore, please concentrate on the individual elements of quality. Click here to view the IHEP 24 indicators you have already evaluated.

| | Definitely Not Relevant (Or Already Listed) | Not Relevant | Slightly Relevant | Relevant | Definitely Relevant |
|---|---|---|---|---|---|
| Online learning should be robustly evaluated using tools widely available, so that faculty and students know what students perceive about the efficacy of online learning and so the institution knows how they compare and how they can improve. | ☐ | ☐ | ☐ | ☐ | ☐ |
| A process is in place for the assessment of faculty and student support services. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Course and program retention is assessed. | | | | | |
| Results of course evaluations are used as part of faculty/instructor performance evaluations. | ☐ | ☐ | ☐ | ☐ | ☐ |

| | | | | | |
|---|---|---|---|---|---|
| Recruitment and retention are examined and reviewed | ☐ | ☐ | ☐ | ☐ | ☐ |
| Evaluation should include evaluation by potential employers. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Course evaluations collect student feedback on quality of content and effectiveness of instruction. | ☐ | ☐ | ☐ | ☐ | ☐ |
| the relationship between online education programs and institutional mission must be included as a measure. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Program demonstrates compliance and review of accessibility standards (Section 508, etc.) | ☐ | ☐ | ☐ | ☐ | ☐ |
| Student evaluations of course/instructor/program are made available. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Course evaluations are examined in relation to faculty performance evaluations. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Aggregation of data to ensure each class is being taught well. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Faculty performance is regularly assessed. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Alignment of learning outcomes from course to course exists. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Online learning should be robustly evaluated using tools widely available, so that faculty and students know what students perceive about the efficacy of online learning and so the institution knows how they compare and how they can improve. The credentials of the distance education support staff and administration, in terms of years of professional experience and education level as well as type of degree earned (educational technology or general education verses non-education). | ☐ | ☐ | ☐ | ☐ | ☐ |

34. Based upon the indicators you have evaluated today, please list any additional indicators that you believe are necessary to effectively assess quality online education programs. Click here to view the original IHEP 24 indicators you have previously evaluated.



# Appendix L

## Delphi Round II: Initial Email for Survey

March 26, 2010

To: [Email]
From: kaye@dbu.edu

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Round 2 Survey: A Quality Scorecard for the Administration of Online Education

Dear [FirstName],

Thank you for your participation in this panel study for quality online education! We gathered a tremendous amount of data in the first round and I have presented here in the second survey for your additional feedback. Your responses will be again collected and the overall results will make up the next round of the survey. Please remember that the ultimate goal of our project is to develop a scorecard or rubric for evaluating an online education program, one that we could all generally use as administrators.

The second survey is now open until April 9, 2010 at 5pm. However, if all panelists have responded before then, the survey will close and we will move to the next round. I apologize for the delay of the survey, for each round, I must gain IRB approval.

The survey is located at: http://www.surveymonkey.com/s.aspx

Should you have any questions or comments regarding this process, please feel free to contact me at kaye@dbu.edu or 214-235-6685. This link is uniquely tied to this survey and your email address. Please do not forward this message.

Kaye Shelton
Ph.D. Candidate, University of Nebraska-Lincoln
Dean, Online Education
Dallas Baptist University
3000 Mountain Creek Parkway
Dallas, TX 75211
214 333 5283 OFC
214 333 5373 FAX
kaye@dbu.edu

If you wish to no longer participate in this study, click here
http://www.surveymonkey.com/optout.aspx

# Appendix M

## Delphi Round II: First Reminder Email

April 1, 2010
To: [Email]
From: kaye@dbu.edu

Reminder To Complete Second Round Survey: Quality Scorecard for Online Education

Dear [FirstName]:

This is a reminder that you have just a few more days to complete the second phase of the research study -- A Quality Scorecard for the Administration of Online Education Programs: A Delphi Study. Your response must be submitted by April 9th at 5PM so that we can move on to the next round. (You must complete this survey round to move on to the next.)If all panelists have responded before the April 9 deadline, the survey will close and we will move to the next round.

Please take the time to access the following link. http://www.surveymonkey.com/s.aspx

If you have any difficulty please contact me at 214.235.6635 at any time. Your responses are very important and make this research process possible.
Thank you for your help.
Sincerely

Kaye Shelton
Ph.D. Candidate, University of Nebraska-Lincoln
Dean, Online Education
Dallas Baptist University

Please note: If you do not wish to receive further emails from us, please click the link below, and you will be automatically removed from our mailing list.
http://www.surveymonkey.com/optout.aspx

# Appendix N

## Delphi Round II: Final Reminder Email

April 7, 2010

To: [Email]
From: kaye@dbu.edu

Reminder To Complete Second Round Survey: Quality Scorecard for Online Education (Closes Friday, April 9th)

Dear Panel Member:

This is a reminder that the second phase of the research study -- A Quality Scorecard for the Administration of Online Education Programs: A Delphi Study will close on Friday, by April 9th at 5PM. The next round will be available in about a week, after IRB approval.

Please take the time to access the following link: http://www.surveymonkey.com/s.aspx

In case you are needing a complete list of the questions for round 2 before completing it, I have uploaded a pdf to the following link so that you may print it out and view all the questions when answering if desired.

http://www.kayeshelton.com/Survey_round%202.pdf

If you have any difficulty please contact me at 214.235.6635 at any time. Your responses are very important and make this research process possible.

Thank you for your help.
Sincerely

Kaye Shelton

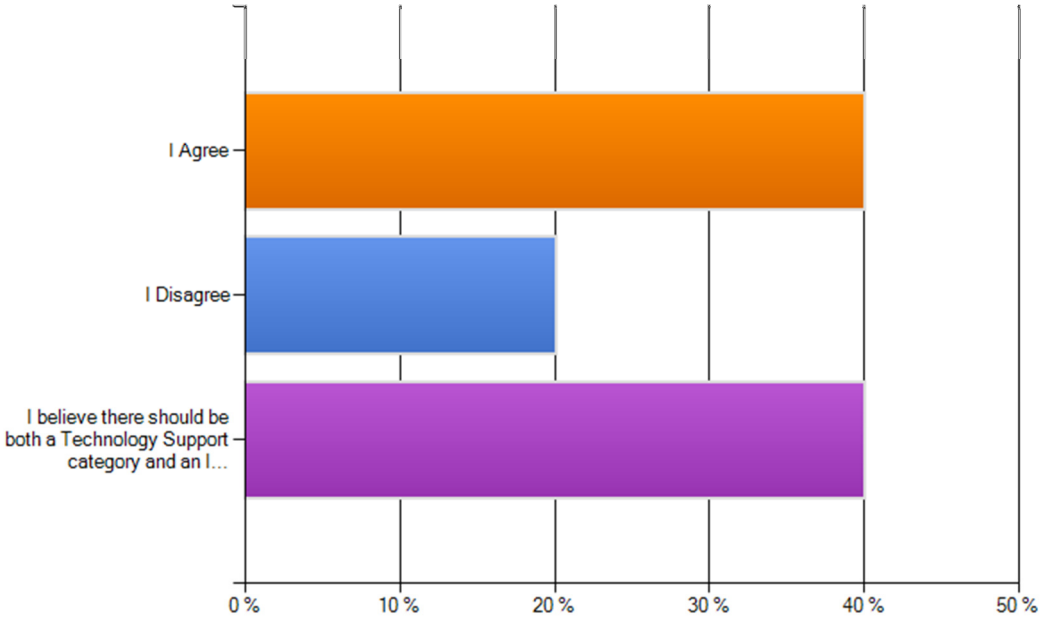
Ph.D. Candidate, University of Nebraska-Lincoln
Dean, Online Education
Dallas Baptist University

Please note: If you do not wish to receive further emails from us, please click the link below, and you will be automatically removed from our mailing list.
http://www.surveymonkey.com/optout.aspx

# Appendix O

## Delphi Round II Results

Question #1 – The first category of quality indicators that you reviewed was the *Institutional Support Category*. It has been suggested that this be changed to *Institutional and Technology Support*. Do you agree or disagree?
Results: 40% of the panel agreed to the name change; 20% of the panel disagreed and 40% believed there should be two standalone categories: Institutional Support and Technology Support.



Question #2

| *Suggested Categories or Themes* | *Definitely Not Relevant (Or Already Listed)* | *Not Relevant* | *Slightly Relevant* | *Relevant* | *Definitely Relevant* | *Not a Category/Theme but should be a quality indicator* | *Mean* | *% of Panel Agreement* |
|---|---|---|---|---|---|---|---|---|
| Learning Resources | 4 | 1 | 2 | 6 | 13 | 14 | 3.88 | 47.5% |
| Assessment Strategies | 6 | 1 | 4 | 3 | 15 | 11 | 3.69 | 45.0% |
| Social and Student Engagement | 1 | 2 | 9 | 9 | 10 | 9 | 3.81 | 47.5% |
| Co-curricular Activities | 3 | 11 | 11 | 6 | 1 | 7 | 2.72 | 17.9% |
| Accessibility (ADA) | 0 | 0 | 2 | 6 | 17 | 15 | 4.60 | 57.5% |
| Accessibility in a Global Environment (cost, technology, transferability of course credits) | 1 | 6 | 11 | 6 | 5 | 11 | 3.28 | 27.5% |
| Copyright/Fair Use Compliance | 1 | 2 | 3 | 6 | 13 | 15 | 4.12 | 47.5% |
| Purposeful Use of Multimedia Features | 2 | 3 | 6 | 6 | 10 | 13 | 3.70 | 40.0% |
| Faculty Development | 8 | 1 | 1 | 4 | 17 | 9 | 3.68 | 52.5% |
| Technology Tools | 6 | 2 | 5 | 6 | 9 | 12 | 3.36 | 37.5% |
| Emerging Technology Support for Faculty and Students | 8 | 1 | 6 | 2 | 9 | 14 | 3.12 | 27.5% |
| Academic Technology Integration | 7 | 2 | 4 | 4 | 9 | 14 | 3.23 | 32.5% |
| Technology Literacy | 4 | 3 | 3 | 9 | 8 | 12 | 3.52 | 43.6% |
| Instructional Design | 5 | 0 | 2 | 4 | 18 | 11 | 4.03 | 55.0% |

| *Suggested Categories or Themes* | *Definitely Not Relevant (Or Already Listed)* | *Not Relevant* | *Slightly Relevant* | *Relevant* | *Definitely Relevant* | *Not a Category/Theme but should be a quality indicator* | *Mean* | *% of Panel Agreement* |
|---|---|---|---|---|---|---|---|---|
| Vended Relationships | 9 | 12 | 8 | 4 | 2 | 5 | 2.37 | 15.0% |
| Sustainability and Scalability | 5 | 3 | 6 | 8 | 10 | 7 | 3.47 | 46.2% |
| Institutional Readiness for Distance Learning | 4 | 3 | 2 | 7 | 13 | 11 | 3.76 | 50.0% |
| Strategic Vision and Program Development | 4 | 0 | 6 | 3 | 17 | 10 | 3.97 | 50.0% |
| Program Development | 7 | 1 | 3 | 5 | 14 | 10 | 3.60 | 47.5% |
| School Mission and Vision | 7 | 4 | 5 | 5 | 9 | 10 | 3.17 | 35.0% |

Questions 3-26: Original IHEP Indicators Evaluated

| Original IHEP Indicator (2000) | Suggested Revisions to be Reevaluated in Delphi Round III (After Round 2 Panel Determination) | Suggested Revisions Not Selected by 70% of the Panel |
|---|---|---|
| 1. *A documented technology plan that includes electronic security measures (i.e., password protection, encryption, back-up systems) is in place and operational to ensure both quality standards and the integrity and validity of information* | • A documented technology plan that includes electronic security measures (e.g., password protection, encryption, back-up systems) is in place and operational to ensure both quality standards and the integrity and validity of both personal information (login/password and bio information) and academic information. (25% of the panel selected this option)<br><br>• A documented technology plan that includes electronic security measures (e.g., password protection, encryption, secure online or proctored exams, etc.) is in place and operational to ensure quality standards, adherence to FERPA and the integrity and validity of information. (45% of the panel selected this option) | • A documented technology plan for delivery of online education which includes security measures (e.g., password protection, encryption, back-up systems) is in place and operational. 12.5% of the panel selected this option)<br><br>• A set of technology requirements is in place which includes third party vendor applications and electronic security measures (e.g., password protection, encryption, cyber security, etc.). (2.5% of the panel selected this option)<br><br>• Due to the increasingly ubiquitous nature of technology, technology standards exist for both the online program as well as at the institutional level (0% of the panel selected this |

| Original IHEP Indicator (2000) | Suggested Revisions to be Reevaluated in Delphi Round III (After Round 2 Panel Determination) | Suggested Revisions Not Selected by 70% of the Panel |
|---|---|---|
| | | option)<br><br>• Keep the statement in its original format. (15% of the panel selected this option) |
| 2. *The reliability of the technology delivery system is as failsafe as possible* | • The technology delivery systems are highly reliable and interoperable.(25% of the panel selected this option)<br><br>• The technology delivery systems are highly reliable and operable with measurable standards being utilized such as system downtime tracking or task benchmarking. (42.5% of the panel selected this option)<br><br>• Keep the statement in its original format. (20% of the panel selected this option) | • The reliability of the technology delivery system has the necessary processes in place to make it as failsafe as possible. (7.5% of the panel selected this option)<br><br>• The technology systems used are student friendly and very reliable. (5% of the panel selected this option) |
| 3. *A centralized system provides support for building and maintaining the distance education infrastructure.* | • A centralized technology system provides support for building and maintaining the distance education infrastructure and quality oversight. (17.9% of the panel selected this | • A centralized technology system provides flexible support for building and maintaining the distance education (online) |

| Original IHEP Indicator (2000) | Suggested Revisions to be Reevaluated in Delphi Round III (After Round 2 Panel Determination) | Suggested Revisions Not Selected by 70% of the Panel |
|---|---|---|
| | option)<br><br>• A centralized technology system provides support for building and maintaining the distance education infrastructure which is guided by input from both faculty and administrators and the institution's strategic plan. (25.6% of the panel selected this option)<br><br>• Keep the statement in its original format. (30.8% of the panel selected this option) | infrastructure. (7.7% of the panel selected this option)<br>• Technology support, faculty training and student services is centralized. (0% of the panel selected this option)<br>• A solid centralized technology infrastructure provides support for maintaining the distance education platform. (7.7% of the panel selected this option)<br>• A suite of distributed technology systems provides support for building and maintaining the distance education infrastructure. (10.3% of the panel selected this option) |
| 4. *Guidelines regarding minimum standards are used for course development, design, and delivery, while learning outcomes—not the availability of existing technology—determine the technology being used to deliver course content.* | • Guidelines regarding minimum standards are used for course development, design, and delivery, while learning outcomes determine how technology is used to deliver course content. (10.3% of the panel selected this option)<br><br>• Guidelines regarding quality standards | • Guidelines regarding minimum standards are used for course development, design, and delivery, while learning outcomes—as opposed to the availability of existing technology—determine the technology being used to deliver course |

| Original IHEP Indicator (2000) | Suggested Revisions to be Reevaluated in Delphi Round III (After Round 2 Panel Determination) | Suggested Revisions Not Selected by 70% of the Panel |
|---|---|---|
| | are used for course development, design, delivery and assessment, while learner experience or pedagogical intent—not the availability of existing technology—determine the technology being used to deliver course content. (10.3% of the panel selected this option)<br><br>• Divide the statement into two different quality indicators: 1) Guidelines regarding minimum agreed-upon standards are used for course development, design, and delivery. 2) Learning outcomes determine the technology being used to deliver course content. (12.8% of the panel selected this option)<br><br>• Divide the statement into two different quality indicators: 1) Guidelines regarding minimum standards are used for course development, design, and delivery. 2.) Learning outcomes—not the availability of existing technology—determine the technology being used to deliver course content. (10.3% of the panel selected this option) | content. (0% of the panel selected this option)<br><br>• Guidelines regarding minimum standards are used for course development, design, and delivery, and learning outcomes—not the availability of existing technology—determine the technology being used to deliver course content. (0% of the panel selected this option)<br><br>• Guidelines regarding minimum standards are used for course development, design, and delivery, while learning outcomes—as opposed to the availability of existing technology—determine the technology being used to deliver course content. (2.6% of the panel selected this option) |

| Original IHEP Indicator (2000) | Suggested Revisions to be Reevaluated in Delphi Round III (After Round 2 Panel Determination) | Suggested Revisions Not Selected by 70% of the Panel |
|---|---|---|
| | • Divide the statement into two different quality indicators 1)Guidelines regarding minimum standards are used for course development, design, and delivery of online instruction. 2)Technology is used as a tool to achieve learning outcomes in delivering course content. (23.1% of the panel selected this option)<br><br>• Guidelines regarding institutional standards are used for course design, development, and delivery. Learning outcomes guide the selection and use of technology to deliver course content. (12.8% of the panel selected this option)<br><br>• Keep the statement in its original format. (17.9% of the panel selected this option) | |
| 5. *Instructional materials are reviewed periodically to ensure they meet program standards.* | • Instructional materials are reviewed regularly to ensure they meet program standards. (15.8% of the panel selected this option)<br><br>• Instructional materials are reviewed | • Instructional materials are peer-reviewed (internally and externally) periodically to ensure they meet program standards. (5.3% of the panel selected this option) |

| Original IHEP Indicator (2000) | Suggested Revisions to be Reevaluated in Delphi Round III (After Round 2 Panel Determination) | Suggested Revisions Not Selected by 70% of the Panel |
|---|---|---|
| | periodically to ensure they meet program standards with the recommended improvements implemented. (10.5% of the panel selected this option)<br><br>• Instructional materials, course syllabus and learning outcomes are reviewed periodically to ensure they meet program standards. (23.7% of the panel selected this option)<br><br>• Keep the statement in its original format. (21.1% of the panel selected this option)<br><br>• Instructional materials are reviewed periodically to ensure they meet program standards and that course information is up to date and relevant. (*****This is a new statement suggested in round 2 for evaluation) | • Online course materials are reviewed periodically to ensure they meet program standards. (2.6% of the panel selected this option)<br><br>• Instructional materials are reviewed periodically by peers (faculty) and instructional designers to ensure they meet program standards. (2.6% of the panel selected this option)<br><br>• Instructional materials are reviewed periodically according to a set time frame to ensure they meet program standards. (2.6% of the panel selected this option)<br><br>• Instructional materials are reviewed periodically to ensure that they meet program standards and that the information is transparent to students. (2.6% of the |

| Original IHEP Indicator (2000) | Suggested Revisions to be Reevaluated in Delphi Round III (After Round 2 Panel Determination) | Suggested Revisions Not Selected by 70% of the Panel |
|---|---|---|
| | | panel selected this option)<br><br>• Instructional materials are reviewed periodically to ensure they meet outcome assessments. (5.3% of the panel selected this option)<br><br>• Instructional materials are reviewed continuously to ensure they meet program standards. (7.9% of the panel selected this option) |
| 6. *Courses are designed to require students to engage themselves in analysis, synthesis, and evaluation as part of their course and program requirements.* | • Courses are designed so that students develop the necessary knowledge and skills to meet learning objectives at the course and program level. These may include engagement via analysis, synthesis and evaluation. (34.2% of the panel selected this option)<br><br>• Courses are designed to engage students in analysis, synthesis, and evaluation as part of course and program requirements. (26.3% of the panel selected this option)<br><br>• Keep the statement in its original | • Courses should be designed to include a balance of learning strategies and approaches. (7.9% of the panel selected this option)<br><br>• Courses are designed to require students to engage in analysis, synthesis, and evaluation as part of their course and program requirements. (7.9% of the panel selected this option)<br><br>• Courses are designed to allow |

| Original IHEP Indicator (2000) | Suggested Revisions to be Reevaluated in Delphi Round III (After Round 2 Panel Determination) | Suggested Revisions Not Selected by 70% of the Panel |
|---|---|---|
| | format. (21.1% of the panel selected this option)<br><br>• Courses are designed to engage students in analysis, synthesis, assessment, and mastery as part of their program requirements. (******This is a new statement suggested in round 2 for evaluation) | students to engage themselves in analysis, synthesis, assessment and mastery as part of their program requirements. (2.6% of the panel selected this option) |
| 7. *Student interaction with faculty and other students is an essential characteristic and is facilitated through a variety of ways, including voice-mail and/or e-mail.* | • Student interaction with faculty and other students is an essential characteristic and is facilitated through a variety of ways. (12.8% of the panel selected this option)<br><br>• Student-to-Student interaction and Faculty-to-student interaction are essential characteristics and are facilitated through a variety of ways. (23.1% of the panel selected this option)<br><br>• Student interaction with faculty and other students is an essential characteristic and is facilitated through a variety of ways both synchronous and asynchronous. (23.1% of the panel selected this option) | • Student interaction with faculty and other students is an essential characteristic and is facilitated through a variety of ways, including voice mail, e-mail, blogs, wikis, threaded discussions, instant messaging, social networks, and virtual environments. (7.7% of the panel selected this option)<br><br>• Student interaction with faculty and other students is essential and is facilitated through a variety of ways including synchronous (phone, chat, webconferencing, etc.) and |

| Original IHEP Indicator (2000) | Suggested Revisions to be Reevaluated in Delphi Round III (After Round 2 Panel Determination) | Suggested Revisions Not Selected by 70% of the Panel |
|---|---|---|
| | • Courses are designed to provide ample opportunity for student interaction with faculty and other students. (15.4% of the panel selected this option) | asynchronous (email, LMS mail, discussion forum, etc.) methods. (2.6% of the panel selected this option)<br><br>• Student interaction with faculty and other students is essential and is facilitated through a variety of approved institutional resources and/or channels such as voice communication tools, secured LMS forums, and/or e-mail. (2.6% of the panel selected this option)<br><br>• Student interaction with faculty, other students, texts, media objects, technologies and content of an online course is valuable and can be facilitated in a variety of ways within a learning management system as well as through peripherals and linkages. (2.6% of the panel selected this option) |

| Original IHEP Indicator (2000) | Suggested Revisions to be Reevaluated in Delphi Round III (After Round 2 Panel Determination) | Suggested Revisions Not Selected by 70% of the Panel |
|---|---|---|
| | | • Student interaction with faculty and other students is an essential characteristic and is facilitated through a variety of ways including synchronous mediums such as live classroom software, Second Life, asynchronous voice tools and email. (5.1% of the panel selected this option)<br><br>• Student interaction with faculty and other students is an essential characteristic and is facilitated through a variety of ways, including online tools, voice-mail and/or e-mail. (2.6% of the panel selected this option)<br><br>• Keep the statement in its original format. (2.6% of the panel selected this option) |
| *8. Feedback to student assignments and questions is constructive and provided in a timely manner.* | • Feedback on student assignments and questions is constructive and provided in a timely manner. (28.9% of the panel | • Feedback on student assessment activities and solutions to questions are |

| Original IHEP Indicator (2000) | Suggested Revisions to be Reevaluated in Delphi Round III (After Round 2 Panel Determination) | Suggested Revisions Not Selected by 70% of the Panel |
|---|---|---|
| | selected this option)<br><br>• Feedback on student assignments and questions is constructive and provided in a timely manner (as indicated in the course syllabus). (28.9% of the panel selected this option)<br><br>• Keep the statement in its original format. (26.3% of the panel selected this option)<br><br>• To facilitate student retention and student success, feedback on student assignments and questions is constructive, and provided regularly using common technology tools readily available to faculty and students. (*****This is a new statement suggested in Round 2)<br><br>• To facilitate student success and retention, feedback on student assignments and questions is constructive and provided in a timely manner. (******This is a new statement suggested in Round 2) | provided in a timely manner to support student improvement. (0% of the panel selected this option)<br>• To facilitate student retention and student success, feedback on student assignments and questions is constructive, and provided daily using common technology tools readily available to faculty and students. (7.9% of the panel selected this option)<br>• Feedback on student assignments and questions is constructive and provided in a timely manner and includes the use of virtual/intelligent tutoring advances. (2.6% of the panel selected this option)<br>• Feedback to student assignments (e.g., projects, reports, group activities, etc.) and questions is constructive and provided in a timely manner. (5.3% of the panel |

| Original IHEP Indicator (2000) | Suggested Revisions to be Reevaluated in Delphi Round III (After Round 2 Panel Determination) | Suggested Revisions Not Selected by 70% of the Panel |
|---|---|---|
| | | selected this option) |
| 9. *Students are instructed in the proper methods of effective research, including assessment of the validity of resources.* | • Students are engaged in new digital/media literacy skill development, including assessment of the validity of resources. (12.8% of the panel selected this option)<br><br>• Students learn appropriate methods for effective research, including assessment of the validity of resources and the ability to master resources in an online environment. (30.8% of the panel selected this option)<br><br>• Divide into two statements: Students are instructed in the methods of effective research if applicable to their discipline. Students are instructed in methods of information literacy, including assessment of the validity of sources and proper citation. (17.9% of the panel selected this option)<br><br>• Keep the statement in its original format. (17.9% of the panel selected this option) | • Students are instructed in the proper methods of effective research in their discipline of study, including assessment of the validity of sources. (10.3% of the panel selected this option)<br><br>• Students learn appropriate methods for effective research, including assessment of the validity of resources and the ability to master resources in an online environment. (10.3% of the panel selected this option)<br><br>• Instruction is delivered using proven instructional methodologies based on effective research, and assessment and evaluation is conducted using the latest tools for student authentication. (5.1% of the panel selected this option) |

| Original IHEP Indicator (2000) | Suggested Revisions to be Reevaluated in Delphi Round III (After Round 2 Panel Determination) | Suggested Revisions Not Selected by 70% of the Panel |
|---|---|---|
| | | |
| 10. *Before starting an online program, students are advised about the program to determine (1) if they possess the self-motivation and commitment to learn at a distance and (2) if they have access to the minimal technology required by the course design.* | 1. Before starting an online program, students are advised about the program to determine (1) if they possess the self-motivation and commitment to learn at a distance,(2) if they have access to the minimal technology required by the course design, and (3) if they have mastery of the minimal technology or the opportunity to master the skills prior to the start of the course. (15.4% of the panel selected this option)<br><br>2. Before starting an online program, students are advised about the requirements of self-motivation and commitment that contribute to student success and about the minimal technology requirements required by the course design (Student Support Category). (12.8% of the panel selected this option)<br><br>3. Divide into two questions: 1) Before starting an online program, students are advised about the program to determine if they possess the self-motivation and commitment to learn at | 5. Before an online course begins, students are advised that self-motivation and commitment will contribute to their success as well as they must have access to the minimal technology required by the course design. (5.1% of the panel selected this option)<br>6. Students should be given assistance or orientation for becoming equipped for taking online courses.(Student Support Category) (2.6% of the panel selected this option)<br>7. Students are required to complete a self-assessment to measure student readiness factors, including minimal technology access, and technical competency; and upon completion, students are provided with an orientation on how to login and navigate an online course site (Student Support |

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| | a distance. (Student Support Category) 2) Before starting an online program, students are advised about the program to determine if they have access to the minimal technology required by the course design (Course Development Category). (28.2% of the panel selected this option)<br><br>4. Keep the statement in its original format. (23.1% of the panel selected this option) | Category). (5.1% of the panel selected this option)<br>8. Student readiness: Before starting an online program, students are advised about the program to determine (1) if they possess the self-motivation and commitment to learn at a distance and (2) if they have access to the minimal technology required by the course design. (Student Support Category) (7.3% of the panel selected this option) |
| *11. Students are provided with supplemental course information that outlines course objectives, concepts, and ideas, and learning outcomes for each course are summarized in a clearly written, straightforward statement.* | • Students are provided with course information that outlines course objectives, concepts, and ideas, and learning outcomes for each course are summarized in a clearly written, straightforward statement. (15.4% of the panel selected this option)<br><br>• Students are provided with a list of the course objectives, a description of the fundamental concepts and ideas addressed in the course, and the | • Learning outcomes for each course are summarized in a clearly written, straightforward statement. Students are provided with supplemental course information that outlines course objectives, concepts, and ideas that support the stated course objectives and learning outcomes. (7.7% of the panel selected this |

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| | learning outcomes students are expected to achieve are clearly written. (12.8% of the panel selected this option)<br><br>• The online course site includes a syllabus outlining course objectives, learning outcomes, evaluation methods, textbook information, and other related course information, making course requirements transparent at time of registration. (17.9% of the panel selected this option)<br><br>• Students are provided with a course syllabus that outlines course objectives, concepts, and ideas, and learning outcomes for each course are summarized in a clearly written, straightforward statement. (15.4% of the panel selected this option)<br><br>• Keep the statement in its original format. (12.8% of the panel selected this option) | option)<br><br>• Students are provided with course information that outlines course objectives, concepts, and ideas, and learning outcomes for each course are summarized in a clearly written, straightforward statement. For example, the following sections could be provided: 1. WELCOME! 2. Contact Information 3. Course Overview & Objectives 4. Readings and Materials 5. Course Learning Activities 6. How you will be Evaluated 7. My Expectations 8. Course Schedule 9. YOUR NEXT STEPS. (2.6% of the panel selected this option)<br><br>• Students are provided with course information that outlines course objectives, concepts, and ideas, and learning outcomes for each |

| Original IHEP Indicator (2000) | Suggested Revisions to be Reevaluated in Delphi Round III (After Round 2 Panel Determination) | Suggested Revisions Not Selected by 70% of the Panel |
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| | | course are summarized in a clearly written, straightforward statement. (5.1% of the panel selected this option)<br><br>• Prior to the beginning of the course, students are provided with supplemental course information that outlines course objectives, concepts, and ideas, and learning outcomes for each course are summarized in a clearly written, straightforward statement. (2.6% of the panel selected this option)<br><br>• Students are provided with supplemental course information that outlines course objectives, concepts, ideas, and learning outcomes, all of which are summarized in plain language and are available in multiple alternative formats. (5.1% of the panel selected this |

| Original IHEP Indicator (2000) | Suggested Revisions to be Reevaluated in Delphi Round III (After Round 2 Panel Determination) | Suggested Revisions Not Selected by 70% of the Panel |
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| | | option)<br><br>• Students are provided with integrated course information that outlines course objectives, concepts, and ideas, and learning outcomes for each course are summarized in a clearly written, straightforward statement. (2.6% of the panel selected this option) |
| 12. *Students have access to sufficient library resources that may include a "virtual library" accessible through the World Wide Web.* | • Students have access to sufficient library resources that include a "virtual library" accessible online. (7.9% of the panel selected this option)<br><br>• Students have access to sufficient library resources that may include a "virtual library" and other online resources accessible through the Internet. (10.5% of the panel selected this option)<br><br>• Students have access to sufficient library resources online and in print. (10.5% of the panel selected this | • Students have access to equivalent library resources that may include a "virtual library" and library personnel accessible through the World Wide Web (e.g., synchronous chat, etc.). (5.3% of the panel selected this option)<br><br>• Students have access to sufficient library resources that may include a "virtual library" accessible through the Internet. (2.6% of the panel selected this option) |

| Original IHEP Indicator (2000) | Suggested Revisions to be Reevaluated in Delphi Round III (After Round 2 Panel Determination) | Suggested Revisions Not Selected by 70% of the Panel |
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| | option)<br><br>• Students have online access to sufficient library resources for their program of study. (7.9% of the panel selected this option)<br><br>• The institution ensures that all distance education students, regardless of where they are located, have access to library/learning resources adequate to support the courses they are taking (SACS statement). (36.8% of the panel selected this option)<br><br>• Keep the statement in its original format. (10.5% of the panel selected this option) | • Students have access to sufficient library resources that includes a "virtual library" with online databases accessible through the internet. (0% of the panel selected this option)<br><br>• Students have access to an online librarian and digital library resources as part of an online course or program. (5.3% of the panel selected this option)<br><br>• Students have access to necessary library resources; all required library materials, whether campus- or web-based, will be fully accessible to all students regardless of disability status. (0% of the panel selected this option)<br><br>• Students have access to sufficient library resources like virtual libraries, |

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| | | multimedia objects, and open educational resources via the web. (2.6% of the panel selected this option)<br><br>• Students have access to sufficient library resources through the Internet. (0% of the panel selected this option) |
| 13. *Faculty and students agree upon expectations regarding times for student assignment completion and faculty response.* | • Faculty clearly articulate (or explain) expectations regarding times for student assignment completion and faculty response. (10.5% of the panel selected this option)<br><br>• Faculty clearly design, define and state expectations regarding times for student assignment completion and faculty response. (13.2% of the panel selected this option)<br><br>• The instructor clearly articulates the expectations for student regarding assignment due dates and faculty response times. (13.2% of the panel selected this option) | • Faculty and students agree upon expectations regarding times for student assignment completion, how assignments will be submitted, and faculty response. (0% of the panel selected this option)<br><br>• Faculty clearly articulate expectations course expectations such as times for student assignment completion, student participation and faculty response. (5.3% of the panel selected this option) |

| Original IHEP Indicator (2000) | Suggested Revisions to be Reevaluated in Delphi Round III (After Round 2 Panel Determination) | Suggested Revisions Not Selected by 70% of the Panel |
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| | • Course syllabus is clear on course communication policies and reasonable faculty response time to student assignments or questions. (10.5% of the panel selected this option)<br><br>• Expectations for student assignment completion and faculty response are clearly outlined in the course syllabus. (13.2% of the panel selected this option)<br><br>• Expectations for student assignment completion, grade policy and faculty response are clearly provided in the course syllabus. (23.7% of the panel selected this option) | • Faculty provide students with expectations regarding times for student assignment completion and when faculty will provide grades and feedback. (2.6% of the panel selected this option)<br><br>• Communication expectations are clear: faculty and students agree upon expectations regarding times for student assignment completion and faculty response to student communication. (2.6% of the panel selected this option)<br><br>• No synchronous assignments are required, but are available by mutual agreement (online office |

| Original IHEP Indicator (2000) | Suggested Revisions to be Reevaluated in Delphi Round III (After Round 2 Panel Determination) | Suggested Revisions Not Selected by 70% of the Panel |
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| | | hours, chat or other software for small groups). Faculty will clearly state their email and discussion board post time response window, and also indicate their "down time." Assignment completion will be extended if the campus server is down for more than several hours, goes out during an online exam, or if students at a distance are impacted by local conditions (weather, disaster, etc.). (0% of the panel selected this option)<br><br>• Faculty provide clear expectations regarding times for student assignment completion and faculty response. (2.6% of the panel selected this option)<br><br>• Expectations regarding times for student assignment and faculty response are clear. (2.6% of the panel selected this option) |

| Original IHEP Indicator (2000) | Suggested Revisions to be Reevaluated in Delphi Round III (After Round 2 Panel Determination) | Suggested Revisions Not Selected by 70% of the Panel |
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| | | • Keep the statement in its original format. (0% of the panel selected this option) |
| 14. *Students receive information about programs, including admission requirements, tuition and fees, books and supplies, technical and proctoring requirements, and student support services.* | • Students receive (or have access to) information about programs, including admission requirements, tuition and fees, books and supplies, technical and proctoring requirements, and student support services prior to admission and course registration. (40.5% of the panel selected this option)<br><br>• Relevant program and institutional information is accessible to students. This information includes admission requirements, tuition and fees, books and supplies, technical and proctoring requirements, and student support services. (27% of the panel selected this option)<br><br>• Online student services information about programs including application, counseling, tutoring, library services, financial aid, and other student support | • Prior to enrolling and throughout the course/ program students receive information about programs, including admission requirements, tuition and fees, books and supplies, technical and proctoring requirements, and student support services. (0% of the panel selected this option)<br><br>• Prior to paying any application or other frees, students receive information about programs, including admission requirements, tuition and fees, books and supplies, technical and proctoring requirements, and student support services. (8.1% of the panel selected |

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| | services is readily available through web links in the course. (13.5% of the panel selected this option) | this option)<br><br>• Keep the statement in its original format. (10.8% of the panel selected this option) |
| 15. *Students are provided with hands-on training and information to aid them in securing material through electronic databases, interlibrary loans, government archives, news services, and other sources.* | • Students are provided with virtual or electronic training and information to aid them in securing material through electronic databases, interlibrary loans, government archives, news services, and other sources. (15.8% of the panel selected this option)<br><br>• Students are provided with tutorials and information to aid them in securing material through electronic databases, interlibrary loans, government archives, news services, and other sources. (13.2% of the panel selected this option)<br><br>• Online library services information is provided to students via web links. (15.8% of the panel selected this option)<br><br>• The institution provides orientation to distance education students | • Students are provided with appropriate hands-on training, resources, and information to aid them in securing material through electronic databases, interlibrary loans, government archives, news services, and other sources. (2.6% of the panel selected this option)<br><br>• If desired or warranted, students are provided with accessible training and information to aid them in securing material through electronic databases, interlibrary loans, government archives, news services, and other sources. (0% of the panel selected this option) |

| Original IHEP Indicator (2000) | Suggested Revisions to be Reevaluated in Delphi Round III (After Round 2 Panel Determination) | Suggested Revisions Not Selected by 70% of the Panel |
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| | concerning available student resources and how to access and use them. (13.2% of the panel selected this option)<br><br>• Students are provided with training and information, in a variety of formats, to aid them in securing material through electronic databases, interlibrary loans, government archives, news services, and other sources. (13.2% of the panel selected this option)<br><br>• Students are provided with access to training and information they will need to secure required materials through electronic databases, interlibrary loans, government archives, new services and other sources. (21.1% of the panel selected this option) | • Students are provided access to librarians. (0% of the panel selected this option)<br><br>• Students are provided with training and information literacy for securing material through electronic databases, interlibrary loans, government archives, news services, and other sources. (2.6% of the panel selected this option)<br><br>• Online library services information is provided to students via web links. (0% of the panel selected this option)<br><br>• Students are provided with online assistance and information to aid them in securing material through electronic databases, interlibrary loans, government archives, news |

| Original IHEP Indicator (2000) | Suggested Revisions to be Reevaluated in Delphi Round III (After Round 2 Panel Determination) | Suggested Revisions Not Selected by 70% of the Panel |
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| | | services, and other sources. (2.6% of the panel selected this option)<br><br>• Students are provided with hands-on training and information to aid them in securing material through electronic databases, interlibrary loans, government archives, news services, and other sources. (0% of the panel selected this option) |
| 16. *Throughout the duration of the course/program, students have access to technical assistance, including detailed instructions regarding the electronic media used, practice sessions prior to the beginning of the course, and convenient access to technical support staff.* | • Throughout the duration of the course/program, students have access to technical assistance, including detailed instructions regarding the electronic media used, and convenient access to technical support staff. (24.3% of the panel selected this option)<br><br>• Throughout the duration of the course/program, students have access to appropriate technical assistance and technical support staff. (51.4% of the panel selected this option) | • Throughout the duration of the course/program, students have access to technical assistance from technical support staff. (18.9% of the panel selected this option)<br><br>• Students have access to technical assistance provided by a help desk, rather than the instructor. (5.4% of the panel selected this option)<br><br>• The opportunity to become |

| Original IHEP Indicator (2000) | Suggested Revisions to be Reevaluated in Delphi Round III (After Round 2 Panel Determination) | Suggested Revisions Not Selected by 70% of the Panel |
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| | | familiar with course management systems should be part of an online orientation. (0% of the panel selected this option) |
| *17. Questions directed to student service personnel are answered accurately and quickly, with a structured system in place to address student complaints.* | • Student support personnel are available to address student questions, problems, bug reporting, and complaints. (58.3% of the panel selected this option)<br>• Keep the statement in its original format. (25% of the panel selected this option)<br>• Students' questions, issues and complaints are dealt with are addressed expeditiously. (*****This is a new statement suggested in Round 2) | • Online courses should provide information for contacting Student Support Services with questions or concerns. (16.7% of the panel selected this option) |
| *18. Technical assistance in course* | • Technical and pedagogical assistance in | • Faculty are paired with |

| Original IHEP Indicator (2000) | Suggested Revisions to be Reevaluated in Delphi Round III (After Round 2 Panel Determination) | Suggested Revisions Not Selected by 70% of the Panel |
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| *development is available to faculty, who are encouraged to use it.* | course development is available to faculty, who are encouraged to use it. (13.5% of the panel selected this option)<br><br>• Technical assistance in course development is available to faculty and professional development or certification training is required to ensure quality and standards. (10.8% of the panel selected this option)<br><br>• Instructional design and technology support in course development and delivery is available to faculty who are encouraged to use it. (16.2% of the panel selected this option)<br><br>• Keep the statement in its original format. (10.8% of the panel selected this option)<br><br>• Combine #18 and #19 - Technical assistance in course development and assistance with the transition to teaching online is provided. (#19 - Faculty members are assisted in the transition from classroom teaching to | course designers who assist, support, and guide faculty in course development. (8.1% of the panel selected this option)<br><br>• Institutional instructional design and support services are provided for technology integration and course development to faculty who are encouraged to use the services. (8.1% of the panel selected this option)<br>• A faculty development program that supports course development is required. (8.1% of the panel selected this option) |

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| | online instruction and are assessed during the process.)(24.3% of the panel selected this option)<br><br>• Technical and online pedagogical training for faculty is required when courses are first developed. Instructional designers are available for consultation when needed during the semester. (*****This is a new statement suggested in Round 2) | |
| 19. *Faculty members are assisted in the transition from classroom teaching to online instruction and are assessed during the process.* | • Faculty members are assisted in the transition from classroom teaching to online instruction. (13.9% of the panel selected this option)<br><br>• Faculty members are assisted with pedagogical and technological issues that ensue in the transition from classroom teaching to online instruction. The effectiveness of the support provided is assessed during the process. (11.1% of the panel selected this option)<br><br>• Faculty members are assisted in the | • Institution provides Faculty members assistance with teaching in the online classroom and assess/evaluate online teaching. (5.6% of the panel selected this option)<br><br>• Faculty members are provided mandatory training prior to developing their first online course. (0% of the panel selected this option)<br><br>• Online faculty must complete |

| Original IHEP Indicator (2000) | Suggested Revisions to be Reevaluated in Delphi Round III (After Round 2 Panel Determination) | Suggested Revisions Not Selected by 70% of the Panel |
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| | transition from classroom teaching to online instruction and are assessed according to institutional practices for evaluation. (13.9% of the panel selected this option)<br><br>• Keep the statement in its original format. (11.1% of the panel selected this option)<br><br>• Combine #18 and #19 - Technical assistance in course development and assistance with the transition to teaching online is provided. (#18 Technical assistance in course development is available to faculty, who are encouraged to use it). (19.4% of the panel selected this option)<br><br>• Combine #19 and #20 Faculty members are trained and assisted in blended and online course development and ongoing delivery, with opportunity for peer mentoring. (#20 - Instructor training and assistance, including peer mentoring, continues through the progression of the online course). (11.1% of the panel selected this | a college-specific orientation to teaching online and the college must provide ongoing faculty development and support. (2.8% of the panel selected this option)<br><br>• Faculty members are required to receive training prior to teaching an online course and much demonstrate minimum proficiency has been achieved. (5.6% of the panel selected this option)<br><br>• Faculty members are assisted in the transition from classroom teaching to online instruction. (0% of the panel selected this option)<br><br>• Faculty members are assisted in the transition from classroom teaching to online instruction and are assessed during the process. (5.6% of the panel selected this option) |

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| | option) | |
| 20. *Instructor training and assistance, including peer mentoring, continues through the progression of the online course.* | • Instructors are prepared to teach distance education courses and the institution ensures faculty receive training, assistance and support at all times during the development and delivery of courses. (37.8% of the panel selected this option)<br><br>• Keep the statement in its original format. (13.5% of the panel selected this option)<br><br>• Combine #19 and #20 - Faculty members are trained and assisted in blended and online course development and ongoing delivery, with opportunity for peer mentoring (#19 Faculty members are assisted in the transition from classroom teaching to online instruction and are assessed during the process). (24.3% of the panel selected this option) | • Instructor training and assistance, including peer mentoring (if desired by the faculty member), continues through the progression of the online course. (8.1 % of the panel selected this option)<br><br>• Instructor training and assistance, including peer mentoring, available through the progression of the online course. (5.4% of the panel selected this option)<br><br>• Instructor training and assistance, including peer mentoring, continues through the delivery of a faculty member's first online course. (10.8% of the panel selected this option) |
| 21. *Faculty members are provided with written resources to deal with issues* | • Faculty members are provided with current institutional policies to deal | • Faculty members are provided with resources to |

| Original IHEP Indicator (2000) | Suggested Revisions to be Reevaluated in Delphi Round III (After Round 2 Panel Determination) | Suggested Revisions Not Selected by 70% of the Panel |
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| *arising from student use of electronically-accessed data.* | with issues arising from student use of electronically-accessed data. (15.8% of the panel selected this option)<br><br>• Faculty receive training and materials related to Fair Use, plagiarism, and other relevant legal and ethical concepts. (21.1% of the panel selected this option)<br><br>• Faculty members are provided with resources to deal with issues arising from student use of electronically-accessed data. (13.2% of the panel selected this option)<br><br>• Faculty members have the resources and procedures they need in order to deal with issues arising from student use of electronic data and information. (13.2% of the panel selected this option)<br><br>• Faculty members are provided with a variety of resources, in multiple formats, to deal with issues arising from student use of electronically-accessed data Including a focus on | deal with issues arising from student use of electronically-accessed data (such as plagiarism or copyright violations. (7.9% of the panel selected this option)<br><br>• Faculty members are provided with online resources to deal with issues arising from student use of electronically-accessed data. (2.6% of the panel selected this option)<br><br>• Faculty members are provided with resources and are skilled to deal with issues arising from student use of electronically-accessed data. (0% of the panel selected this option)<br><br>• Faculty members are provided with both written and support staff resources to deal with issues arising from student use of electronically- |

| Original IHEP Indicator (2000) | Suggested Revisions to be Reevaluated in Delphi Round III (After Round 2 Panel Determination) | Suggested Revisions Not Selected by 70% of the Panel |
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| | students who have disabilities. (10.5% of the panel selected this option) | accessed data. (7.9% of the panel selected this option)<br><br>• Faculty are provided with netiquette policies and procedures in dealing with issues arising from student use of electronically-accessed data. (0% of the panel selected this option)<br><br>• Faculty members are provided with statistical data in order to assist them in dealing with student use of learning resources to facilitate early intervention and student success. (2.6% of the panel selected this option)<br><br>• Keep the statement in its original format. (5.3% of the panel selected this option) |
| 22. *The program's educational effectiveness and teaching/learning process is assessed through an* | • The program is assessed through an evaluation process that applies specific established standards. (28.9% of the | • The program's educational effectiveness and teaching/learning process is |

| Original IHEP Indicator (2000) | Suggested Revisions to be Reevaluated in Delphi Round III (After Round 2 Panel Determination) | Suggested Revisions Not Selected by 70% of the Panel |
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| *evaluation process that uses several methods and applies specific standards.* | panel selected this option)<br><br>• The program's educational effectiveness and teaching/learning process (including learning outcomes) is assessed through an evaluation process that uses several methods and applies specific standards. (26.3% of the panel selected this option)<br><br>• Keep the statement in its original format. (28.9% of the panel selected this option) | assessed through an evaluation process that uses several methods and applies specific standards (should be similar to the process used for traditional programs). (7.9% of the panel selected this option)<br><br>• The program's educational effectiveness and teaching/learning process for each area of study is assessed through an evaluation process that uses several methods and applies specific standards. (7.9% of the panel selected this option) |
| *23. Data on enrollment, costs, and successful/innovative uses of technology are used to evaluate program effectiveness.* | • Data on enrollment, costs, and learning outcomes are used to evaluate program effectiveness. (15.8% of the panel selected this option)<br><br>• Data on enrollment, costs, learning outcomes, successful /innovative uses of technology and other factors (i.e., | • Data on enrollment, costs, student success and successful/innovative uses of technology are used to evaluate program effectiveness. (10.5% of the panel selected this option)<br>• Data on enrollment, costs, |

| Original IHEP Indicator (2000) | Suggested Revisions to be Reevaluated in Delphi Round III (After Round 2 Panel Determination) | Suggested Revisions Not Selected by 70% of the Panel |
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| | administrative support, how a program fits in the strategic framework of institution, faculty support) are used to evaluate program effectiveness. (15.8% of the panel selected this option)<br><br>• A variety of information-academic and administrative - is used to regularly and frequently evaluate program effectiveness and to guide changes toward continual improvement. (34.2% of the panel selected this option)<br><br>• Keep the statement in its original format. (13.2% of the panel selected this option) | and successful/innovative instructional and communication uses of technology are used to evaluate program effectiveness. (0% of the panel selected this option)<br>• Data on enrollment, costs, revenue, program design and successful/innovative uses of technology are used to evaluate program effectiveness and success. (2.6% of the panel selected this option)<br>• Data is used for program assessment based upon program goals. (7.9% of the panel selected this option) |
| *24. Intended learning outcomes are reviewed regularly to ensure clarity, utility, and appropriateness.* | • Intended learning outcomes at the course and program level are reviewed regularly to ensure clarity, utility, and appropriateness. (36.8% of the panel selected this option)<br><br>• Keep the statement in its original format. (34.2% of the panel selected this option) | • Intended learning outcomes are reviewed regularly to ensure clarity, utility, and appropriateness. (10.5% of the panel selected this option)<br>• Intended learning outcomes are reviewed regularly to ensure clarity, utility, and |

| Original IHEP Indicator (2000) | Suggested Revisions to be Reevaluated in Delphi Round III (After Round 2 Panel Determination) | Suggested Revisions Not Selected by 70% of the Panel |
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| | | appropriateness and changes are made based upon review. (18.2% of the panel selected this option)<br>• Intended learning outcomes are reviewed regularly to ensure clarity, utility, and appropriateness including attention to cross-cultural issues, and user-friendliness. (0% of the panel selected this option) |

Questions 3-26: Original IHEP Indicators Evaluated

| Original IHEP Indicator (2000) | Suggested Revisions to be Reevaluated in Delphi Round III (After Round 2 Panel Determination) | Suggested Revisions Not Selected by 70% of the Panel |
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| 1. *A documented technology plan that includes electronic security measures (i.e., password protection, encryption, back-up systems) is in place and operational to ensure both quality standards and the integrity and validity of information* | • A documented technology plan that includes electronic security measures (e.g., password protection, encryption, back-up systems) is in place and operational to ensure both quality standards and the integrity and validity of both personal information (login/password and bio information) and academic information. (25% of the panel selected this option)<br>• A documented technology plan that includes electronic security measures (e.g., password protection, encryption, secure online or proctored exams, etc.) is in place and operational to ensure quality standards, adherence to FERPA and the integrity and validity of information. (45% of the panel selected this option) | • A documented technology plan for delivery of online education which includes security measures (e.g., password protection, encryption, back-up systems) is in place and operational. 12.5% of the panel selected this option)<br>• A set of technology requirements is in place which includes third party vendor applications and electronic security measures (e.g., password protection, encryption, cyber security, etc.). (2.5% of the panel selected this option)<br>• Due to the increasingly ubiquitous nature of technology, technology standards exist for both the online program as well as at the institutional level (0% of the panel selected this option)<br>• Keep the statement in its original format. (15% of the panel selected this option) |
| 2. *The reliability of the technology delivery system is as failsafe as possible* | • The technology delivery systems are highly reliable and interoperable.(25% of the panel selected this option)<br>• The technology delivery systems are highly reliable and operable with measurable standards being utilized such as system downtime tracking or task benchmarking. | • The reliability of the technology delivery system has the necessary processes in place to make it as failsafe as possible. (7.5% of the panel selected this option)<br>• The technology systems used are student friendly and very reliable. (5% |

| Original IHEP Indicator (2000) | Suggested Revisions to be Reevaluated in Delphi Round III (After Round 2 Panel Determination) | Suggested Revisions Not Selected by 70% of the Panel |
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| | (42.5% of the panel selected this option)<br>• Keep the statement in its original format. (20% of the panel selected this option) | of the panel selected this option) |
| 3. *A centralized system provides support for building and maintaining the distance education infrastructure.* | • A centralized technology system provides support for building and maintaining the distance education infrastructure and quality oversight. (17.9% of the panel selected this option)<br>• A centralized technology system provides support for building and maintaining the distance education infrastructure which is guided by input from both faculty and administrators and the institution's strategic plan. (25.6% of the panel selected this option)<br>• Keep the statement in its original format. (30.8% of the panel selected this option) | • A centralized technology system provides flexible support for building and maintaining the distance education (online) infrastructure. (7.7% of the panel selected this option)<br>• Technology support, faculty training and student services is centralized. (0% of the panel selected this option)<br>• A solid centralized technology infrastructure provides support for maintaining the distance education platform. (7.7% of the panel selected this option)<br>• A suite of distributed technology systems provides support for building and maintaining the distance education infrastructure. (10.3% of the panel selected this option) |
| 4. *Guidelines regarding minimum standards are used for course development, design, and delivery, while learning outcomes—not the availability of existing technology—determine the technology being used to deliver course content.* | • Guidelines regarding minimum standards are used for course development, design, and delivery, while learning outcomes determine how technology is used to deliver course content. (10.3% of the panel selected this option)<br>• Guidelines regarding quality standards are used for course development, design, delivery and | • Guidelines regarding minimum standards are used for course development, design, and delivery, while learning outcomes—as opposed to the availability of existing technology—determine the technology being used to deliver course content. (0% of the panel selected this option) |

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| | assessment, while learner experience or pedagogical intent—not the availability of existing technology—determine the technology being used to deliver course content. (10.3% of the panel selected this option)<br>• Divide the statement into two different quality indicators: 1) Guidelines regarding minimum agreed-upon standards are used for course development, design, and delivery. 2) Learning outcomes determine the technology being used to deliver course content. (12.8% of the panel selected this option)<br>• Divide the statement into two different quality indicators: 1) Guidelines regarding minimum standards are used for course development, design, and delivery. 2.) Learning outcomes—not the availability of existing technology—determine the technology being used to deliver course content. (10.3% of the panel selected this option)<br>• Divide the statement into two different quality indicators 1)Guidelines regarding minimum standards are used for course development, design, and delivery of online instruction. 2)Technology is used as a tool to achieve learning outcomes in delivering course content. (23.1% of the panel selected this option)<br>• Guidelines regarding institutional standards are used for course design, development, and delivery. Learning outcomes guide the selection and use of technology to deliver course content. (12.8% of the panel selected | • Guidelines regarding minimum standards are used for course development, design, and delivery, and learning outcomes—not the availability of existing technology—determine the technology being used to deliver course content. (0% of the panel selected this option)<br>• Guidelines regarding minimum standards are used for course development, design, and delivery, while learning outcomes—as opposed to the availability of existing technology—determine the technology being used to deliver course content. (2.6% of the panel selected this option) |

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| | this option)<br>• Keep the statement in its original format. (17.9% of the panel selected this option) | |
| 5. *Instructional materials are reviewed periodically to ensure they meet program standards.* | • Instructional materials are reviewed regularly to ensure they meet program standards. (15.8% of the panel selected this option)<br>• Instructional materials are reviewed periodically to ensure they meet program standards with the recommended improvements implemented. (10.5% of the panel selected this option)<br>• Instructional materials, course syllabus and learning outcomes are reviewed periodically to ensure they meet program standards. (23.7% of the panel selected this option)<br>• Keep the statement in its original format. (21.1% of the panel selected this option)<br>• Instructional materials are reviewed periodically to ensure they meet program standards and that course information is up to date and relevant. (*****This is a new statement suggested in round 2 for evaluation) | • Instructional materials are peer-reviewed (internally and externally) periodically to ensure they meet program standards. (5.3% of the panel selected this option)<br>• Online course materials are reviewed periodically to ensure they meet program standards. (2.6% of the panel selected this option)<br>• Instructional materials are reviewed periodically by peers (faculty) and instructional designers to ensure they meet program standards. (2.6% of the panel selected this option)<br>• Instructional materials are reviewed periodically according to a set time frame to ensure they meet program standards. (2.6% of the panel selected this option)<br>• Instructional materials are reviewed periodically to ensure that they meet program standards and that the information is transparent to students. (2.6% of the panel selected this option)<br>• Instructional materials are reviewed periodically to ensure they meet |

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| | | outcome assessments. (5.3% of the panel selected this option)<br>• Instructional materials are reviewed continuously to ensure they meet program standards. (7.9% of the panel selected this option) |
| 6. *Courses are designed to require students to engage themselves in analysis, synthesis, and evaluation as part of their course and program requirements.* | • Courses are designed so that students develop the necessary knowledge and skills to meet learning objectives at the course and program level. These may include engagement via analysis, synthesis and evaluation. (34.2% of the panel selected this option)<br>• Courses are designed to engage students in analysis, synthesis, and evaluation as part of course and program requirements. (26.3% of the panel selected this option)<br>• Keep the statement in its original format. (21.1% of the panel selected this option)<br>• Courses are designed to engage students in analysis, synthesis, assessment, and mastery as part of their program requirements. (******This is a new statement suggested in round 2 for evaluation) | • Courses should be designed to include a balance of learning strategies and approaches. (7.9% of the panel selected this option)<br>• Courses are designed to require students to engage in analysis, synthesis, and evaluation as part of their course and program requirements. (7.9% of the panel selected this option)<br>• Courses are designed to allow students to engage themselves in analysis, synthesis, assessment and mastery as part of their program requirements. (2.6% of the panel selected this option) |
| 7. *Student interaction with faculty and other students is an essential characteristic and is facilitated through a variety of ways, including voice-mail and/or e-mail.* | • Student interaction with faculty and other students is an essential characteristic and is facilitated through a variety of ways. (12.8% of the panel selected this option)<br>• Student-to-Student interaction and Faculty-to-student interaction are essential characteristics | • Student interaction with faculty and other students is an essential characteristic and is facilitated through a variety of ways, including voice mail, e-mail, blogs, wikis, threaded discussions, instant messaging, social |

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| | and are facilitated through a variety of ways. (23.1% of the panel selected this option)<br>• Student interaction with faculty and other students is an essential characteristic and is facilitated through a variety of ways both synchronous and asynchronous. (23.1% of the panel selected this option)<br>• Courses are designed to provide ample opportunity for student interaction with faculty and other students. (15.4% of the panel selected this option) | networks, and virtual environments. (7.7% of the panel selected this option)<br>• Student interaction with faculty and other students is essential and is facilitated through a variety of ways including synchronous (phone, chat, webconferencing, etc.) and asynchronous (email, LMS mail, discussion forum, etc.) methods. (2.6% of the panel selected this option)<br>• Student interaction with faculty and other students is essential and is facilitated through a variety of approved institutional resources and/or channels such as voice communication tools, secured LMS forums, and/or e-mail. (2.6% of the panel selected this option)<br>• Student interaction with faculty, other students, texts, media objects, technologies and content of an online course is valuable and can be facilitated in a variety of ways within a learning management system as well as through peripherals and linkages. (2.6% of the panel selected this option)<br>• Student interaction with faculty and other students is an essential characteristic and is facilitated through a variety of ways including synchronous mediums such as live classroom software, Second Life, |

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| | | asynchronous voice tools and email. (5.1% of the panel selected this option)<br>• Student interaction with faculty and other students is an essential characteristic and is facilitated through a variety of ways, including online tools, voice-mail and/or e-mail. (2.6% of the panel selected this option)<br>• Keep the statement in its original format. (2.6% of the panel selected this option) |
| 8. *Feedback to student assignments and questions is constructive and provided in a timely manner.* | • Feedback on student assignments and questions is constructive and provided in a timely manner. (28.9% of the panel selected this option)<br>• Feedback on student assignments and questions is constructive and provided in a timely manner (as indicated in the course syllabus). (28.9% of the panel selected this option)<br>• Keep the statement in its original format. (26.3% of the panel selected this option)<br>• To facilitate student retention and student success, feedback on student assignments and questions is constructive, and provided regularly using common technology tools readily available to faculty and students. (*****This is a new statement suggested in Round 2) | • Feedback on student assessment activities and solutions to questions are provided in a timely manner to support student improvement. (0% of the panel selected this option)<br>• To facilitate student retention and student success, feedback on student assignments and questions is constructive, and provided daily using common technology tools readily available to faculty and students. (7.9% of the panel selected this option)<br>• Feedback on student assignments and questions is constructive and provided in a timely manner and includes the use of virtual/intelligent tutoring advances. (2.6% of the panel selected this option)<br>• Feedback to student assignments (e.g., projects, reports, group activities, etc.) |

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| | • To facilitate student success and retention, feedback on student assignments and questions is constructive and provided in a timely manner. (******This is a new statement suggested in Round 2) | and questions is constructive and provided in a timely manner. (5.3% of the panel selected this option) |
| 9. *Students are instructed in the proper methods of effective research, including assessment of the validity of resources.* | • Students are engaged in new digital/media literacy skill development, including assessment of the validity of resources. (12.8% of the panel selected this option)<br>• Students learn appropriate methods for effective research, including assessment of the validity of resources and the ability to master resources in an online environment. (30.8% of the panel selected this option)<br>• Divide into two statements: Students are instructed in the methods of effective research if applicable to their discipline. Students are instructed in methods of information literacy, including assessment of the validity of sources and proper citation. (17.9% of the panel selected this option)<br>• Keep the statement in its original format. (17.9% of the panel selected this option) | • Students are instructed in the proper methods of effective research in their discipline of study, including assessment of the validity of sources. (10.3% of the panel selected this option)<br>• Students learn appropriate methods for effective research, including assessment of the validity of resources and the ability to master resources in an online environment. (10.3% of the panel selected this option)<br>• Instruction is delivered using proven instructional methodologies based on effective research, and assessment and evaluation is conducted using the latest tools for student authentication. (5.1% of the panel selected this option) |
| 10. *Before starting an online program, students are advised about the program to determine (1) if they possess the self-* | 9. Before starting an online program, students are advised about the program to determine (1) if they possess the self-motivation and | 13. Before an online course begins, students are advised that self-motivation and commitment will |

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| *motivation and commitment to learn at a distance and (2) if they have access to the minimal technology required by the course design.* | commitment to learn at a distance,(2) if they have access to the minimal technology required by the course design, and (3) if they have mastery of the minimal technology or the opportunity to master the skills prior to the start of the course. (15.4% of the panel selected this option)<br><br>10. Before starting an online program, students are advised about the requirements of self-motivation and commitment that contribute to student success and about the minimal technology requirements required by the course design (Student Support Category). (12.8% of the panel selected this option)<br><br>11. Divide into two questions: 1) Before starting an online program, students are advised about the program to determine if they possess the self-motivation and commitment to learn at a distance. (Student Support Category) 2) Before starting an online program, students are advised about the program to determine if they have access to the minimal technology required by the course design (Course Development Category). (28.2% of the panel selected this option)<br><br>12. Keep the statement in its original format. (23.1% of the panel selected this option) | contribute to their success as well as they must have access to the minimal technology required by the course design. (5.1% of the panel selected this option)<br><br>14. Students should be given assistance or orientation for becoming equipped for taking online courses.(Student Support Category) (2.6% of the panel selected this option)<br><br>15. Students are required to complete a self-assessment to measure student readiness factors, including minimal technology access, and technical competency; and upon completion, students are provided with an orientation on how to login and navigate an online course site (Student Support Category). (5.1% of the panel selected this option)<br><br>16. Student readiness: Before starting an online program, students are advised about the program to determine (1) if they possess the self-motivation and commitment to learn at a distance and (2) if they have access to the minimal technology required by the course design. (Student Support Category) (7.3% of the panel selected this option) |
| *11. Students are provided with supplemental* | • Students are provided with course information | • Learning outcomes for each course are |

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| *course information that outlines course objectives, concepts, and ideas, and learning outcomes for each course are summarized in a clearly written, straightforward statement.* | that outlines course objectives, concepts, and ideas, and learning outcomes for each course are summarized in a clearly written, straightforward statement. (15.4% of the panel selected this option)<br><br>• Students are provided with a list of the course objectives, a description of the fundamental concepts and ideas addressed in the course, and the learning outcomes students are expected to achieve are clearly written. (12.8% of the panel selected this option)<br><br>• The online course site includes a syllabus outlining course objectives, learning outcomes, evaluation methods, textbook information, and other related course information, making course requirements transparent at time of registration. (17.9% of the panel selected this option)<br><br>• Students are provided with a course syllabus that outlines course objectives, concepts, and ideas, and learning outcomes for each course are summarized in a clearly written, straightforward statement. (15.4% of the panel selected this option)<br><br>• Keep the statement in its original format. (12.8% of the panel selected this option) | summarized in a clearly written, straightforward statement. Students are provided with supplemental course information that outlines course objectives, concepts, and ideas that support the stated course objectives and learning outcomes. (7.7% of the panel selected this option)<br><br>• Students are provided with course information that outlines course objectives, concepts, and ideas, and learning outcomes for each course are summarized in a clearly written, straightforward statement. For example, the following sections could be provided: 1. WELCOME! 2. Contact Information 3. Course Overview & Objectives 4. Readings and Materials 5. Course Learning Activities 6. How you will be Evaluated 7. My Expectations 8. Course Schedule 9. YOUR NEXT STEPS. (2.6% of the panel selected this option)<br><br>• Students are provided with course information that outlines course objectives, concepts, and ideas, and learning outcomes for each course are summarized in a clearly written, straightforward statement. (5.1% of the panel selected this option) |

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| | | • Prior to the beginning of the course, students are provided with supplemental course information that outlines course objectives, concepts, and ideas, and learning outcomes for each course are summarized in a clearly written, straightforward statement. (2.6% of the panel selected this option)<br><br>• Students are provided with supplemental course information that outlines course objectives, concepts, ideas, and learning outcomes, all of which are summarized in plain language and are available in multiple alternative formats. (5.1% of the panel selected this option)<br><br>• Students are provided with integrated course information that outlines course objectives, concepts, and ideas, and learning outcomes for each course are summarized in a clearly written, straightforward statement. (2.6% of the panel selected this option) |
| 12. *Students have access to sufficient library resources that may include a "virtual library" accessible through the World Wide Web.* | • Students have access to sufficient library resources that include a "virtual library" accessible online. (7.9% of the panel selected this option) | • Students have access to equivalent library resources that may include a "virtual library" and library personnel accessible through the World Wide |

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| | • Students have access to sufficient library resources that may include a "virtual library" and other online resources accessible through the Internet. (10.5% of the panel selected this option)<br><br>• Students have access to sufficient library resources online and in print. (10.5% of the panel selected this option)<br><br>• Students have online access to sufficient library resources for their program of study. (7.9% of the panel selected this option)<br><br>• The institution ensures that all distance education students, regardless of where they are located, have access to library/learning resources adequate to support the courses they are taking (SACS statement). (36.8% of the panel selected this option)<br><br>• Keep the statement in its original format. (10.5% of the panel selected this option) | Web (e.g., synchronous chat, etc.). (5.3% of the panel selected this option)<br><br>• Students have access to sufficient library resources that may include a "virtual library" accessible through the Internet. (2.6% of the panel selected this option)<br><br>• Students have access to sufficient library resources that includes a "virtual library" with online databases accessible through the internet. (0% of the panel selected this option)<br><br>• Students have access to an online librarian and digital library resources as part of an online course or program. (5.3% of the panel selected this option)<br><br>• Students have access to necessary library resources; all required library materials, whether campus- or web-based, will be fully accessible to all students regardless of disability status. (0% of the panel selected this option)<br><br>• Students have access to sufficient library resources like virtual libraries, multimedia objects, and open |

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| | | educational resources via the web. (2.6% of the panel selected this option)<br><br>• Students have access to sufficient library resources through the Internet. (0% of the panel selected this option) |
| 13. *Faculty and students agree upon expectations regarding times for student assignment completion and faculty response.* | • Faculty clearly articulate (or explain) expectations regarding times for student assignment completion and faculty response. (10.5% of the panel selected this option)<br><br>• Faculty clearly design, define and state expectations regarding times for student assignment completion and faculty response. (13.2% of the panel selected this option)<br><br>• The instructor clearly articulates the expectations for student regarding assignment due dates and faculty response times. (13.2% of the panel selected this option)<br><br>• Course syllabus is clear on course communication policies and reasonable faculty response time to student assignments or questions. (10.5% of the panel selected this option)<br><br>• Expectations for student assignment completion and faculty response are clearly | • Faculty and students agree upon expectations regarding times for student assignment completion, how assignments will be submitted, and faculty response. (0% of the panel selected this option)<br><br>• Faculty clearly articulate expectations course expectations such as times for student assignment completion, student participation and faculty response. (5.3% of the panel selected this option)<br><br>• Faculty provide students with expectations regarding times for student assignment completion and when faculty will provide grades and feedback. (2.6% of the panel selected this option)<br><br>• Communication expectations are clear: faculty and students agree upon expectations regarding times for |

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| | outlined in the course syllabus. (13.2% of the panel selected this option)<br><br>• Expectations for student assignment completion, grade policy and faculty response are clearly provided in the course syllabus. (23.7% of the panel selected this option) | student assignment completion and faculty response to student communication. (2.6% of the panel selected this option)<br><br>• No synchronous assignments are required, but are available by mutual agreement (online office hours, chat or other software for small groups). Faculty will clearly state their email and discussion board post time response window, and also indicate their "down time." Assignment completion will be extended if the campus server is down for more than several hours, goes out during an online exam, or if students at a distance are impacted by local conditions (weather, disaster, etc.). (0% of the panel selected this option)<br><br>• Faculty provide clear expectations regarding times for student assignment completion and faculty response. (2.6% of the panel selected this option)<br><br>• Expectations regarding times for student assignment and faculty response are clear. (2.6% of the panel selected this option) |

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| | | • Keep the statement in its original format. (0% of the panel selected this option) |
| 14. *Students receive information about programs, including admission requirements, tuition and fees, books and supplies, technical and proctoring requirements, and student support services.* | • Students receive (or have access to) information about programs, including admission requirements, tuition and fees, books and supplies, technical and proctoring requirements, and student support services prior to admission and course registration. (40.5% of the panel selected this option)<br><br>• Relevant program and institutional information is accessible to students. This information includes admission requirements, tuition and fees, books and supplies, technical and proctoring requirements, and student support services. (27% of the panel selected this option)<br><br>• Online student services information about programs including application, counseling, tutoring, library services, financial aid, and other student support services is readily available through web links in the course. (13.5% of the panel selected this option) | • Prior to enrolling and throughout the course/ program students receive information about programs, including admission requirements, tuition and fees, books and supplies, technical and proctoring requirements, and student support services. (0% of the panel selected this option)<br><br>• Prior to paying any application or other frees, students receive information about programs, including admission requirements, tuition and fees, books and supplies, technical and proctoring requirements, and student support services. (8.1% of the panel selected this option)<br><br>• Keep the statement in its original format. (10.8% of the panel selected this option) |

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| 15. *Students are provided with hands-on training and information to aid them in securing material through electronic databases, interlibrary loans, government archives, news services, and other sources.* | • Students are provided with virtual or electronic training and information to aid them in securing material through electronic databases, interlibrary loans, government archives, news services, and other sources. (15.8% of the panel selected this option)<br>• Students are provided with tutorials and information to aid them in securing material through electronic databases, interlibrary loans, government archives, news services, and other sources. (13.2% of the panel selected this option)<br>• Online library services information is provided to students via web links. (15.8% of the panel selected this option)<br>• The institution provides orientation to distance education students concerning available student resources and how to access and use them. (13.2% of the panel selected this option)<br>• Students are provided with training and information, in a variety of formats, to aid them in securing material through electronic databases, interlibrary loans, government archives, news services, and other sources. (13.2% of the panel selected this option) | • Students are provided with appropriate hands-on training, resources, and information to aid them in securing material through electronic databases, interlibrary loans, government archives, news services, and other sources. (2.6% of the panel selected this option)<br>• If desired or warranted, students are provided with accessible training and information to aid them in securing material through electronic databases, interlibrary loans, government archives, news services, and other sources. (0% of the panel selected this option)<br>• Students are provided access to librarians. (0% of the panel selected this option)<br>• Students are provided with training and information literacy for securing material through electronic databases, interlibrary loans, government archives, news services, and other sources. (2.6% of the panel selected this option)<br>• Online library services information is provided to students via web links. (0% of the panel selected this option) |

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| | • Students are provided with access to training and information they will need to secure required materials through electronic databases, interlibrary loans, government archives, new services and other sources. (21.1% of the panel selected this option) | • Students are provided with online assistance and information to aid them in securing material through electronic databases, interlibrary loans, government archives, news services, and other sources. (2.6% of the panel selected this option)<br><br>• Students are provided with hands-on training and information to aid them in securing material through electronic databases, interlibrary loans, government archives, news services, and other sources. (0% of the panel selected this option) |
| 16. *Throughout the duration of the course/program, students have access to technical assistance, including detailed instructions regarding the electronic media used, practice sessions prior to the beginning of the course, and convenient access to technical support staff.* | • Throughout the duration of the course/program, students have access to technical assistance, including detailed instructions regarding the electronic media used, and convenient access to technical support staff. (24.3% of the panel selected this option)<br><br>• Throughout the duration of the course/program, students have access to appropriate technical assistance and technical support staff. (51.4% of the panel selected this option) | • Throughout the duration of the course/program, students have access to technical assistance from technical support staff. (18.9% of the panel selected this option)<br><br>• Students have access to technical assistance provided by a help desk, rather than the instructor. (5.4% of the panel selected this option)<br><br>• The opportunity to become familiar with course management systems should be part of an online orientation. |

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| | | (0% of the panel selected this option) |
| 17. *Questions directed to student service personnel are answered accurately and quickly, with a structured system in place to address student complaints.* | • Student support personnel are available to address student questions, problems, bug reporting, and complaints. (58.3% of the panel selected this option)<br>• Keep the statement in its original format. (25% of the panel selected this option)<br>• Students' questions, issues and complaints are dealt with are addressed expeditiously. (*****This is a new statement suggested in Round 2) | • Online courses should provide information for contacting Student Support Services with questions or concerns. (16.7% of the panel selected this option) |
| 18. *Technical assistance in course development is available to faculty, who are encouraged to use it.* | • Technical and pedagogical assistance in course development is available to faculty, who are encouraged to use it. (13.5% of the panel selected this option) | • Faculty are paired with course designers who assist, support, and guide faculty in course development. (8.1% of the panel selected this option) |

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| | • Technical assistance in course development is available to faculty and professional development or certification training is required to ensure quality and standards. (10.8% of the panel selected this option)<br><br>• Instructional design and technology support in course development and delivery is available to faculty who are encouraged to use it. (16.2% of the panel selected this option)<br><br>• Keep the statement in its original format. (10.8% of the panel selected this option)<br><br>• Combine #18 and #19 - Technical assistance in course development and assistance with the transition to teaching online is provided. (#19 - Faculty members are assisted in the transition from classroom teaching to online instruction and are assessed during the process.)(24.3% of the panel selected this option)<br><br>• Technical and online pedagogical training for faculty is required when courses are first developed. Instructional designers are available for consultation when needed during the semester. (*****This is a new statement suggested in Round 2) | • Institutional instructional design and support services are provided for technology integration and course development to faculty who are encouraged to use the services. (8.1% of the panel selected this option)<br><br>• A faculty development program that supports course development is required. (8.1% of the panel selected this option) |

| Original IHEP Indicator (2000) | Suggested Revisions to be Reevaluated in Delphi Round III (After Round 2 Panel Determination) | Suggested Revisions Not Selected by 70% of the Panel |
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| 19. *Faculty members are assisted in the transition from classroom teaching to online instruction and are assessed during the process.* | • Faculty members are assisted in the transition from classroom teaching to online instruction. (13.9% of the panel selected this option)<br>• Faculty members are assisted with pedagogical and technological issues that ensue in the transition from classroom teaching to online instruction. The effectiveness of the support provided is assessed during the process. (11.1% of the panel selected this option)<br>• Faculty members are assisted in the transition from classroom teaching to online instruction and are assessed according to institutional practices for evaluation. (13.9% of the panel selected this option)<br>• Keep the statement in its original format. (11.1% of the panel selected this option)<br>• Combine #18 and #19 - Technical assistance in course development and assistance with the transition to teaching online is provided. (#18 Technical assistance in course development is available to faculty, who are encouraged to use it). (19.4% of the panel selected this option)<br>• Combine #19 and #20 Faculty members are trained and assisted in blended and online course development and ongoing delivery, with | • Institution provides Faculty members assistance with teaching in the online classroom and assess/evaluate online teaching. (5.6% of the panel selected this option)<br>• Faculty members are provided mandatory training prior to developing their first online course. (0% of the panel selected this option)<br>• Online faculty must complete a college-specific orientation to teaching online and the college must provide ongoing faculty development and support. (2.8% of the panel selected this option)<br>• Faculty members are required to receive training prior to teaching an online course and much demonstrate minimum proficiency has been achieved. (5.6% of the panel selected this option)<br>• Faculty members are assisted in the transition from classroom teaching to online instruction. (0% of the panel selected this option) |

| Original IHEP Indicator (2000) | Suggested Revisions to be Reevaluated in Delphi Round III (After Round 2 Panel Determination) | Suggested Revisions Not Selected by 70% of the Panel |
|---|---|---|
| | opportunity for peer mentoring. (#20 - Instructor training and assistance, including peer mentoring, continues through the progression of the online course). (11.1% of the panel selected this option) | • Faculty members are assisted in the transition from classroom teaching to online instruction and are assessed during the process. (5.6% of the panel selected this option) |
| 20. *Instructor training and assistance, including peer mentoring, continues through the progression of the online course.* | • Instructors are prepared to teach distance education courses and the institution ensures faculty receive training, assistance and support at all times during the development and delivery of courses. (37.8% of the panel selected this option)<br>• Keep the statement in its original format. (13.5% of the panel selected this option)<br>• Combine #19 and #20 - Faculty members are trained and assisted in blended and online course development and ongoing delivery, with opportunity for peer mentoring (#19 Faculty members are assisted in the transition from classroom teaching to online instruction and are assessed during the process). (24.3% of the panel selected this option) | • Instructor training and assistance, including peer mentoring (if desired by the faculty member), continues through the progression of the online course. (8.1 % of the panel selected this option)<br>• Instructor training and assistance, including peer mentoring, available through the progression of the online course. (5.4% of the panel selected this option)<br>• Instructor training and assistance, including peer mentoring, continues through the delivery of a faculty member's first online course. (10.8% of the panel selected this option) |
| 21. *Faculty members are provided with written resources to deal with issues arising from student use of electronically-accessed data.* | • Faculty members are provided with current institutional policies to deal with issues arising from student use of electronically-accessed data. (15.8% of the panel selected this option) | • Faculty members are provided with resources to deal with issues arising from student use of electronically-accessed data (such as plagiarism or copyright violations. (7.9% of the panel |

| Original IHEP Indicator (2000) | Suggested Revisions to be Reevaluated in Delphi Round III (After Round 2 Panel Determination) | Suggested Revisions Not Selected by 70% of the Panel |
|---|---|---|
| | • Faculty receive training and materials related to Fair Use, plagiarism, and other relevant legal and ethical concepts. (21.1% of the panel selected this option)<br><br>• Faculty members are provided with resources to deal with issues arising from student use of electronically-accessed data. (13.2% of the panel selected this option)<br><br>• Faculty members have the resources and procedures they need in order to deal with issues arising from student use of electronic data and information. (13.2% of the panel selected this option)<br><br>• Faculty members are provided with a variety of resources, in multiple formats, to deal with issues arising from student use of electronically-accessed data Including a focus on students who have disabilities. (10.5% of the panel selected this option) | selected this option)<br><br>• Faculty members are provided with online resources to deal with issues arising from student use of electronically-accessed data. (2.6% of the panel selected this option)<br><br>• Faculty members are provided with resources and are skilled to deal with issues arising from student use of electronically-accessed data. (0% of the panel selected this option)<br><br>• Faculty members are provided with both written and support staff resources to deal with issues arising from student use of electronically-accessed data. (7.9% of the panel selected this option)<br><br>• Faculty are provided with netiquette policies and procedures in dealing with issues arising from student use of electronically-accessed data. (0% of the panel selected this option)<br><br>• Faculty members are provided with statistical data in order to assist them in dealing with student use of learning resources to facilitate early intervention and student success. (2.6% of the panel |

| Original IHEP Indicator (2000) | Suggested Revisions to be Reevaluated in Delphi Round III (After Round 2 Panel Determination) | Suggested Revisions Not Selected by 70% of the Panel |
|---|---|---|
| | | selected this option)<br><br>• Keep the statement in its original format. (5.3% of the panel selected this option) |
| 22. *The program's educational effectiveness and teaching/learning process is assessed through an evaluation process that uses several methods and applies specific standards.* | • The program is assessed through an evaluation process that applies specific established standards. (28.9% of the panel selected this option)<br><br>• The program's educational effectiveness and teaching/learning process (including learning outcomes) is assessed through an evaluation process that uses several methods and applies specific standards. (26.3% of the panel selected this option)<br><br>• Keep the statement in its original format. (28.9% of the panel selected this option) | • The program's educational effectiveness and teaching/learning process is assessed through an evaluation process that uses several methods and applies specific standards (should be similar to the process used for traditional programs). (7.9% of the panel selected this option)<br><br>• The program's educational effectiveness and teaching/learning process for each area of study is assessed through an evaluation process that uses several methods and applies specific standards. (7.9% of the panel selected this option) |
| 23. *Data on enrollment, costs, and successful/innovative uses of technology are used to evaluate program effectiveness.* | • Data on enrollment, costs, and learning outcomes are used to evaluate program effectiveness. (15.8% of the panel selected this option) | • Data on enrollment, costs, student success and successful/innovative uses of technology are used to evaluate program effectiveness. (10.5% of the panel selected this option)<br><br>• Data on enrollment, costs, and |

| Original IHEP Indicator (2000) | Suggested Revisions to be Reevaluated in Delphi Round III (After Round 2 Panel Determination) | Suggested Revisions Not Selected by 70% of the Panel |
|---|---|---|
| | • Data on enrollment, costs, learning outcomes, successful /innovative uses of technology and other factors (i.e., administrative support, how a program fits in the strategic framework of institution, faculty support) are used to evaluate program effectiveness. (15.8% of the panel selected this option)<br>• A variety of information-academic and administrative - is used to regularly and frequently evaluate program effectiveness and to guide changes toward continual improvement. (34.2% of the panel selected this option)<br>• Keep the statement in its original format. (13.2% of the panel selected this option) | successful/innovative instructional and communication uses of technology are used to evaluate program effectiveness. (0% of the panel selected this option)<br>• Data on enrollment, costs, revenue, program design and successful/innovative uses of technology are used to evaluate program effectiveness and success. (2.6% of the panel selected this option)<br>• Data is used for program assessment based upon program goals. (7.9% of the panel selected this option) |
| 24. *Intended learning outcomes are reviewed regularly to ensure clarity, utility, and appropriateness.* | • Intended learning outcomes at the course and program level are reviewed regularly to ensure clarity, utility, and appropriateness. (36.8% of the panel selected this option)<br>• Keep the statement in its original format. (34.2% of the panel selected this option) | • Intended learning outcomes are reviewed regularly to ensure clarity, utility, and appropriateness. (10.5% of the panel selected this option)<br>• Intended learning outcomes are reviewed regularly to ensure clarity, utility, and appropriateness and changes are made based upon review. (18.2% of the panel selected this option)<br>• Intended learning outcomes are reviewed regularly to ensure clarity, utility, and appropriateness including attention to cross-cultural issues, and |

| Original IHEP Indicator (2000) | Suggested Revisions to be Reevaluated in Delphi Round III (After Round 2 Panel Determination) | Suggested Revisions Not Selected by 70% of the Panel |
|---|---|---|
| | | user-friendliness. (0% of the panel selected this option) |

Questions 27-33: Additional Indicators Suggested by Panel Evaluation

| *Theme/Category* | ***Quality Indicators Suggested by Panel Approved*** | ***Quality Indicators Suggested by Panel Needing Slightly Higher Consensus (More than 70% of the panel agreed but enough did not rate it with a 4 or 5 rating)*** | ***Quality Indicators Suggested by Panel with 70% or more of Panel rating 3 or above, but did not reach consensus.*** | ***Quality Indicators Suggested by Panel that were not selected by the majority of the Panel and not included in Delphi Round III*** |
|---|---|---|---|---|
| **Institutional and/or Technology Support (not yet determined)** | Institution maintains system backup for data availability (Mean=4.03) | Appropriate policies are developed, reviewed, and disseminated to all stakeholders. (Mean=3.84, 70% or more of panel in support) | Underlying learning managements systems are flexible enough to support emerging technologies, e.g. social networking tools, mobile devices, Web 2.0, etc. (Mean=3.65) | The institution provides documented processes and procedures that enable distance learning. |
| | The institution has put in place a governance structure to enable effective and comprehensive decision making related to distance learning. (Mean=4.11) | Faculty, staff, and students are supported in the development and use of new technologies and skills. (Mean=3.74, 70% or more of panel in support) | The institution makes bookstore services available to students. (Mean=3.39) | Institutions must provide guidance to faculty and students on use of unsupported technologies. |
| | Policies are in place to authenticate that students enrolled in online courses, and receiving college credit are indeed those completing the course work. (Mean=4.11) | The course delivery technology is considered a mission critical enterprise system and supported as such. (Mean=3.89, 70% or more of panel in support) | The institution has defined the strategic value of distance learning to its enterprise and to its relevant parts. (Mean=3.59) | The tech plan also needs to consider and address vended relationships and especially support via cloud computing. It needs to ensure end to end operability of all systems that support distance learning. Also, "Security measures" are generally handled for all campus enterprise systems through an LDAP server which authenticates users. |

| *Theme/Category* | *Quality Indicators Suggested by Panel* ***Approved*** | *Quality Indicators Suggested by Panel Needing Slightly Higher Consensus (More than 70% of the panel agreed but enough did not rate it with a 4 or 5 rating)* | *Quality Indicators Suggested by Panel with 70% or more of Panel rating 3 or above, but did not reach consensus.* | *Quality Indicators Suggested by Panel that were not selected by the majority of the Panel and not included in Delphi Round III* |
|---|---|---|---|---|
| **Institutional and/or Technology Support (not yet determined) (cont'd)** | | | Sustainability and Scalability: A stable support mechanism/financial model to reduce recreating the same course multiple times for example if an instructor leaves the university and there is no agreement governing the intellectual property that would allow the continued use of the course. (Mean=3.66) | |
| | | | Students ensured all they need for degree is offered in program before enrolling. (Mean=3.45) (moved from Course Support Category) | |

| *Theme/Category* | *Quality Indicators Suggested by Panel Approved* | *Quality Indicators Suggested by Panel Needing Slightly Higher Consensus (More than 70% of the panel agreed but enough did not rate it with a 4 or 5 rating)* | *Quality Indicators Suggested by Panel with 70% or more of Panel rating 3 or above, but did not reach consensus.* | *Quality Indicators Suggested by Panel that were not selected by the majority of the Panel and not included in Delphi Round III* |
|---|---|---|---|---|
| **Course Development** | There is consistency in course development for student retention and quality. (Mean=4.11) | Current and emerging technologies are evaluated and recommended for online teaching and learning. (Mean=3.87, 70% or more of panel in support) | Curriculum development is a core responsibility for faculty. (Mean=3.32) | |
| | Policy for Copyright ownerships of course materials exists. (Mean=4.16) | Learning objectives describe outcomes that are measurable. (Mean=3.82, 70% or more of panel in support) | Development of online course materials takes into account the changing context of media delivery. (Mean=3.55) | |
| | Course design promotes both faculty and student engagement. (Mean=4.16) | Selected assessments measure the course learning objectives and are appropriate for an online learning environment. (Mean=3.92, 70% or more of panel in support) | | |
| | Student-centered instruction is considered during the course-development process. (Mean=4.03) | Course objectives provide opportunity for student interaction. (Mean=3.84, 70% or more of panel in support) | | |
| | | Instructional design is provided for creation of effective pedagogy for both synchronous and asynchronous class sessions. (Mean=3.84, 70% or more of panel in support) | | |

| *Theme/Category* | *Quality Indicators Suggested by Panel Approved* | *Quality Indicators Suggested by Panel Needing Slightly Higher Consensus (More than 70% of the panel agreed but enough did not rate it with a 4 or 5 rating)* | *Quality Indicators Suggested by Panel with 70% or more of Panel rating 3 or above, but did not reach consensus.* | *Quality Indicators Suggested by Panel that were not selected by the majority of the Panel and not included in Delphi Round III* |
|---|---|---|---|---|
| **Teaching and Learning** | | Online courses/programs use one course management platform, creating a single delivery model, and students receive an online instructional orientation to the course management platform. (Mean=3.66, 70% or more of panel in support) | Students are provided access to library professionals and resources that help them to deal with the overwhelming amount of online resources. (Mean=3.39) | |
| | | | Course material presented in a variety of ways. (Mean=3.42) | |
| | | | Interactive elements such as video and flash graphics to help engage the students' understanding of key learning objectives. (Mean=3.30) | |

| *Theme/Category* | *Quality Indicators Suggested by Panel Approved* | *Quality Indicators Suggested by Panel Needing Slightly Higher Consensus (More than 70% of the panel agreed but enough did not rate it with a 4 or 5 rating)* | *Quality Indicators Suggested by Panel with 70% or more of Panel rating 3 or above, but did not reach consensus.* | *Quality Indicators Suggested by Panel that were not selected by the majority of the Panel and not included in Delphi Round III* |
|---|---|---|---|---|
| **Course Structure** | Instructional materials are easily accessible and usable for the student. (Mean=4.26) | Opportunities/tools provided to encourage student-student collaboration (i.e, web conferencing, instant messaging, etc). (Mean=3.50, 70% or more of panel in support) | | |
| | The course adequately addresses the special needs of disabled students via alternative instructional strategies and/or referral to special institutional resources. (Mean=4.29) | Links or explanations of technical support are available in the course. (Mean=3.95, 70% or more of panel in support) | Honor code used to enable a culture of accountability. (Mean=3.39) | |

| *Theme/Category* | ***Quality Indicators Suggested by Panel Approved*** | ***Quality Indicators Suggested by Panel Needing Slightly Higher Consensus (More than 70% of the panel agreed but enough did not rate it with a 4 or 5 rating)*** | ***Quality Indicators Suggested by Panel with 70% or more of Panel rating 3 or above, but did not reach consensus.*** | ***Quality Indicators Suggested by Panel that were not selected by the majority of the Panel and not included in Delphi Round III*** |
|---|---|---|---|---|
| **Student Support** | Student support services are provided for outside the classroom such as academic advising, financial assistance, peer support, etc. (Mean=4.05) | Students are provided relevant information: ISBN numbers, suppliers, etc. and delivery modes for all required; instructional materials: digital format, e-packs, print format, etc. to ensure easy access. (Mean=3.50, 70% or more of panel in support) | While technologies may not be supported centrally (like available in the cloud or openly), there needs to guidance on how these tools will be supported and the ramifications to students. (Mean=3.05) | |
| | Policy and process is in place to support ADA requirements. (Mean=4.16) | Students should be provided a way to interact with other students in an online community. (Mean=3.61, 70% or more of panel in support) | Automated support tools are available for faculty to provide early intervention to support student success. (Mean=3.51) | |
| | | Program demonstrates a student-centered focus rather than trying to fit service to the distance education student in on-campus student services. (Mean=3.79, 70% or more of panel in support) | | |
| | | Efforts are made to engage students with the program and institution. (Mean=3.58, 70% or more of panel in support) | | |
| | | Students are instructed in the appropriate ways of communicating with faculty and students. (Mean=3.68, 70% or more of panel in support) | | |

| *Theme/Category* | *Quality Indicators Suggested by Panel Approved* | *Quality Indicators Suggested by Panel Needing Slightly Higher Consensus (More than 70% of the panel agreed but enough did not rate it with a 4 or 5 rating)* | *Quality Indicators Suggested by Panel with 70% or more of Panel rating 3 or above, but did not reach consensus.* | *Quality Indicators Suggested by Panel that were not selected by the majority of the Panel and not included in Delphi Round III* |
|---|---|---|---|---|
| **Student Support (cont'd)** | | Students are instructed in the appropriate ways of enlisting help from the program Support services are designed to build communication and affiliation among the online student population. (Mean=3.50, 70% or more of panel in support) | | |
| | | Students agree and understand the expectations of the program and courses. (Mean=3.66, 70% or more of panel in support) | | |
| | | The institution provides guidance to both students and faculty in the use of all forms of technologies used for course delivery. (Mean=3.42, 70% or more of panel in support) | | |
| | | Students have access to effective academic, personal, and career counseling. (Mean=3.82, 70% or more of panel in support) | | |
| | | Tutoring is available as a learning resource. (Mean=3.89, 70% or more of panel in support) | | |
| | | Minimum technology standards are established and made available to students. (Mean=3.97, 70% or more of panel in support) | | |

| *Theme/Category* | ***Quality Indicators Suggested by Panel Approved*** | ***Quality Indicators Suggested by Panel Needing Slightly Higher Consensus (More than 70% of the panel agreed but enough did not rate it with a 4 or 5 rating)*** | ***Quality Indicators Suggested by Panel with 70% or more of Panel rating 3 or above, but did not reach consensus.*** | ***Quality Indicators Suggested by Panel that were not selected by the majority of the Panel and not included in Delphi Round III*** |
|---|---|---|---|---|
| **Faculty Support** | Clear standards are established for faculty engagement and expectations around online teaching. (Mean=4.05) | | Review of web.2.0 tools and emerging technologies and faculty. (Mean=3.14) | |
| | Faculty are provided on-going professional development related to online teaching and learning. (Mean=4.16) | Faculty workshops are provided to make them aware of emerging technologies and the selection and use of these tools. (Mean=3.50, 70% or more of panel in support) | New learning skills for online teaching and learning are identified. (Mean=3.30) | |

| *Theme/Category* | *Quality Indicators Suggested by Panel Approved* | *Quality Indicators Suggested by Panel Needing Slightly Higher Consensus (More than 70% of the panel agreed but enough did not rate it with a 4 or 5 rating)* | *Quality Indicators Suggested by Panel with 70% or more of Panel rating 3 or above, but did not reach consensus.* | *Quality Indicators Suggested by Panel that were not selected by the majority of the Panel and not included in Delphi Round III* |
|---|---|---|---|---|
| **Evaluation and Assessment** | Course evaluations collect student feedback on quality of content and effectiveness of instruction. (Mean=4.30) | A process is in place for the assessment of faculty and student support services. (Mean=3.97, 70% or more of panel in support) | Online learning should be robustly evaluated using tools widely available, so that faculty and students know what students perceive about the efficacy of online learning and so the institution knows how they compare and how they can improve. (Mean=3.42) | |
| | | Course and program retention is assessed. Results of course evaluations are used as part of faculty/instructor performance evaluations. (Mean=3.84, 70% or more of panel in support) | The relationship between online education programs and institutional mission must be included as a measure. (Mean=3.32) | |
| | | Recruitment and retention are examined and reviewed. (Mean=3.55, 70% or more of panel in support) | Student evaluations of course/instructor/program are made available. (Mean=3.43) | |
| | | Program demonstrates compliance and review of accessibility standards (Section 508, etc.) (Mean=3.82, 70% or more of panel in support) | | |
| | | Course evaluations are examined in relation to faculty performance evaluations. (Mean=3.68, 70% or more of panel in support) | | |

| *Theme/Category* | *Quality Indicators Suggested by Panel Approved* | *Quality Indicators Suggested by Panel Needing Slightly Higher Consensus (More than 70% of the panel agreed but enough did not rate it with a 4 or 5 rating)* | *Quality Indicators Suggested by Panel with 70% or more of Panel rating 3 or above, but did not reach consensus.* | *Quality Indicators Suggested by Panel that were not selected by the majority of the Panel and not included in Delphi Round III* |
|---|---|---|---|---|
| **Evaluation and Assessment (cont'd)** | | Faculty performance is regularly assessed. (Mean=3.84, 70% or more of panel in support) | | |
| | | Alignment of learning outcomes from course to course exists. (Mean=3.63, 70% or more of panel in support) | | |

Question 34: Additional Indicators Suggested in Delphi Round II but were not fed back to the panel until Delphi Round Vi.
Each course includes an orientation module.

Instructors use specific strategies to create a presence in the course.

Students have at least some choice in their activities/assignments.

Course modules are designed for visual appeal as well as clarity and consistency (use of white space, color, well-chosen fonts, no gimmicky graphics/animations that have no real purpose.

Documents attached to modules are in a format that is easily accessed with multiple operating systems and productivity software (PDF, for example).

Institution branding is evident in every part of each course.

# Appendix P

## IRB Approval for Delphi Round III

UNIVERSITY OF Nebraska Lincoln

May 4, 2010

Virginia Shelton
Department of Educational Administration
4105 Wildbriar Ln Mansfield, TX 76063

Jody Isernhagen
Department of Educational Administration
132 TEAC, UNL, 68588-0360

IRB Number: 20091110379 EX
Project ID: 10379
Project Title: A QUALITY SCORECARD FOR THE ADMINISTRATION OF ONLINE EDUCATION PROGRAMS: A DELPHI STUDY

Dear Virginia:

The Institutional Review Board for the Protection of Human Subjects has completed its review of the Request for Change in Protocol submitted to the IRB.

1. It has been approved to use the Round 3 survey instrument.

We wish to remind you that the principal investigator is responsible for reporting to this Board any of the following events within 48 hours of the event:
* Any serious event (including on-site and off-site adverse events, injuries, side effects, deaths, or other problems) which in the opinion of the local investigator was unanticipated, involved risk to subjects or others, and was possibly related to the research procedures;
* Any serious accidental or unintentional change to the IRB-approved protocol that involves risk or has the potential to recur;
* Any publication in the literature, safety monitoring report, interim result or other finding that indicates an unexpected change to the risk/benefit ratio of the research;
* Any breach in confidentiality or compromise in data privacy related to the subject or others; or
* Any complaint of a subject that indicates an unanticipated risk or that cannot be resolved by the research staff.

This letter constitutes official notification of the approval of the protocol change. You are therefore authorized to implement this change accordingly.

If you have any questions, please contact the IRB office at 472-6965.

Sincerely,

Mario Scalora, Ph.D.
Chair for the IRB

# Appendix Q

## Delphi Round III Survey

1. Introduction
This survey round (Survey Round #3) will present the compiled data from the second survey round. Please respond to the survey keeping in mind that your answers should support the development of a quality scorecard that could be generally used by administrators of online education programs.
The last question of the survey is a comment box for you to provide additional feedback if you feel it is important. We are getting closer to having a major portion of the scorecard defined. Click here to view the survey questions provided in this round. Click here to view an overview of what the scorecard looks like so far and what is still being evaluated. (You may want to print these out and keep it handy as you evaluate)

1. The first question in Round 2 asked that you evaluate the *Institutional Support Category* because it had been suggested that this be changed to *Institutional and Technology Support*. We did not reach consensus, however, the majority of responses were split between the following two options: Institutional and Technology Support or separating them into two categories, Institutional Support and Technology Support. There were several written comments regarding this being educational or academic technology. This will be later defined by the type of quality indicators allocated to the category(s). Remember, the original seven categories were: Institutional Support, Faculty Support, Course Development, Teaching and Learning, Student Support, Course Structure and Evaluation and Assessment. Please choose below between the two majority responses.

☐ One single category of quality indicators - Institutional and Technology Support. (40% of the panel selected this option)

☐ Two separate categories of quality indicators - 1. Institutional Support 2.Technology Support. (40% of the panel selected this option)

2. Additional categories suggested for inclusion in the scorecard in Round 1 and evaluated in Round 2. Consensus was not reached. The following are those suggestions with 70% or more of the panel rating them Slightly Relevant, Relevant or Definitely Relevant. We need a mean of 4.0 or more and 70% of the panel in agreement for these to be considered stand alone categories
Please rate the following.

| | Definitely Not Relevant as a Category | Not Relevant as a Category | Slightly Relevant as a Category | Relevant as a Category | Definitely Relevant as a Category |
|---|---|---|---|---|---|
| Social and Student Engagement Mean 3,81, 70% panel agreement) | ☐ | ☐ | ☐ | ☐ | ☐ |
| Accessibility(Mean 4.60, 62.5% panel agreement) | ☐ | ☐ | ☐ | ☐ | ☐ |
| Instructional Design | ☐ | ☐ | ☐ | ☐ | ☐ |

(Mean=4.03, 60%
panel agreement)

3. Original Quality Indicator #1 - *A documented technology plan that includes electronic security measures (i.e., password protection, encryption, back-up systems) is in place and operational to ensure both quality standards and the integrity and validity of information.*
The panel did not reach consensus on which revised statement to use. The following are the responses selected by the majority of the panel (majority=70% or more). Please choose the one you feel may best be used for evaluation of an online education program. We are looking for 70% agreement.

☐ 1. A documented technology plan that includes electronic security measures (e.g., password protection, encryption, back-up systems) is in place and operational to ensure both quality standards and the integrity and validity of both personal information (login/password and bio information) and academic information. (25% of the panel selected this option)

☐ 2. A documented technology plan that includes electronic security measures (e.g., password protection, encryption, secure online or proctored exams, etc.) is in place and operational to ensure quality standards, adherence to FERPA and the integrity and validity of information. (45% of the panel selected this option)

4. Quality Indicator #2 - *The reliability of the technology delivery system is as failsafe as possible.*
The panel did not reach consensus on whether to use one of the revised statements or keep it in its original format. The following are the responses selected by the majority of the panel (majority=70% or more). Please choose the one you feel may best be used for evaluation of an online education program. We are looking for 70% agreement.

☐ 1. The technology delivery systems are highly reliable and interoperable. (25% of the panel selected this option)

☐ 2. The technology delivery systems are highly reliable and operable with measurable standards being utilized such as system downtime tracking or task benchmarking. (42.5% of the panel selected this option)

☐ 3. Keep the statement in its original format. (20% of the panel selected this option)

5. Quality Indicator #3 - *A centralized system provides support for building and maintaining the distance education infrastructure.*
The panel did not reach consensus on whether to use one of the revised statements or keep it in its original format. The following are the responses selected by the majority of the panel (majority=70% or more). Please choose the one you feel may best be used for evaluation of an online education program. We are looking for 70% agreement. (There were several comments about the word “Centralized” however; the majority responses still all contain this word.)

☐ 1. A centralized technology system provides support for building and maintaining the distance education infrastructure and quality oversight. (17.9% of the panel selected this option)

☐ 2. A centralized technology system provides support for building and maintaining the distance education infrastructure which is guided by input from both faculty and administrators and the institution's strategic plan. (25.6% of the panel selected this option)

☐ 3. Keep the statement in its original format. (30.8% of the panel selected this option)

6. Quality Indicator #4 - *Guidelines regarding minimum standards are used for course development, design, and delivery, while learning outcomes—not the availability of existing technology—determine the technology being used to deliver course content.* The panel did not reach consensus on whether to use one of the revised statements or keep it in its original format. The following are the responses selected by the majority of the panel (majority=70% or more). Please choose the one you feel may best be used for evaluation of an online education program. We are looking for 70% agreement.

☐ 1. Guidelines regarding minimum standards are used for course development, design, and delivery, while learning outcomes determine how technology is used to deliver course content. (10.3% of the panel selected this option)

☐ 2. Guidelines regarding quality standards are used for course development, design, delivery and assessment, while learner experience or pedagogical intent—not the availability of existing technology—determine the technology being used to deliver course content. (10.3% of the panel selected this option)

☐ 3. Divide the statement into two different quality indicators: 1) Guidelines regarding minimum agreed-upon standards are used for course development, design, and delivery. 2) Learning outcomes determine the technology being used to deliver course content. (12.8% of the panel selected this option)

☐ 4. Divide the statement into two different quality indicators: 1) Guidelines regarding minimum standards are used for course development, design, and delivery. 2.) Learning outcomes—not the availability of existing technology—determine the technology being used to deliver course content. (10.3% of the panel selected this option)

☐ 5. Divide the statement into two different quality indicators 1) Guidelines regarding minimum standards are used for course development, design, and delivery of online instruction. 2) Technology is used as a tool to achieve learning outcomes in delivering course content. (23.1% of the panel selected this option)

☐ 6. Guidelines regarding institutional standards are used for course design, development, and delivery. Learning outcomes guide the selection and use of technology to deliver course content. (12.8% of the panel selected this option)

☐ 7. Keep the statement in its original format. (17.9% of the panel selected this option)

7. Quality Indicator #5 - *Instructional materials are reviewed periodically to ensure they*

*meet program standards.*
The panel did not reach consensus on whether to use one of the revised statements or keep it in its original format. The following are the responses selected by the majority of the panel (majority=70% or more). Please choose the one you feel may best be used for evaluation of an online education program. We are looking for 70% agreement.

☐ 1. Instructional materials are reviewed regularly to ensure they meet program standards. (15.8% of the panel selected this option)

☐ 2. Instructional materials are reviewed periodically to ensure they meet program standards with the recommended improvements implemented. (10.5% of the panel selected this option)

☐ 3. Instructional materials, course syllabus and learning outcomes are reviewed periodically to ensure they meet program standards. (23.7% of the panel selected this option)

☐ 4. Keep the statement in its original format. (21.1% of the panel selected this option)

☐ 5. Instructional materials are reviewed periodically to ensure they meet program standards and that course information is up to date and relevant. (This is a new statement suggested in round 2 for evaluation)

8. Quality Indicator #6 - *Courses are designed to require students to engage themselves in analysis, synthesis, and evaluation as part of their course and program requirements.*
The panel did not reach consensus on whether to use one of the revised statements or keep it in its original format. The following are the responses selected by the majority of the panel (majority=70% or more). Please choose the one you feel may best be used for evaluation of an online education program. We are looking for 70% agreement.

☐ 1. Courses are designed so that students develop the necessary knowledge and skills to meet learning objectives at the course and program level. These may include engagement via analysis, synthesis and evaluation. (34.2% of the panel selected this option)

☐ 2. Courses are designed to engage students in analysis, synthesis, and evaluation as part of course and program requirements. (26.3% of the panel selected this option)

☐ 3. Keep the statement in its original format. (21.1% of the panel selected this option)

☐ 4. Courses are designed to engage students in analysis, synthesis, assessment, and mastery as part of their program requirements. (This is a new statement suggested in round 2 for evaluation)

9. Quality Indicator #7 - *Student interaction with faculty and other students is an essential characteristic and is facilitated through a variety of ways, including voice-mail and/or e-mail.*
The panel did not reach consensus on which revised statement to use. The following are the responses selected by the majority of the panel (majority=70% or more). Please choose the one you feel may best be used for evaluation of an online education program. We are looking for 70% agreement.

☐ 1. Student interaction with faculty and other students is an essential characteristic and is facilitated through a variety of ways. (12.8% of the panel selected this option)

☐ 2. Student-to-Student interaction and Faculty-to-Student interaction are essential characteristics and are facilitated through a variety of ways. (23.1% of the panel selected this option)

☐ 3. Student interaction with faculty and other students is an essential characteristic and is facilitated through a variety of ways both synchronous and asynchronous. (23.1% of the panel selected this option)

☐ 4. Courses are designed to provide ample opportunity for student interaction with faculty and other students. (15.4% of the panel selected this option)

10. Quality Indicator #8 - *Feedback to student assignments and questions is constructive and provided in a timely manner.*
The panel did not reach consensus on whether to use one of the revised statements or keep it in its original format. The following are the responses selected by the majority of the panel (majority=70% or more). Please choose the one you feel may best be used for evaluation of an online education program. We are looking for 70% agreement.

☐ 1. Feedback on student assignments and questions is constructive and provided in a timely manner. (28.9% of the panel selected this option)

☐ 2. Feedback on student assignments and questions is constructive and provided in a timely manner (as indicated in the course syllabus). (28.9% of the panel selected this option)

☐ 3. Keep the statement in its original format. (26.3% of the panel selected this option)

☐ 4. To facilitate student retention and student success, feedback on student assignments and questions is constructive, and provided regularly using common technology tools readily available to faculty and students.(This is a new statement suggested in Round 2)

☐ 5. To facilitate student success and retention, feedback on student assignments and questions is constructive and provided in a timely manner. (This is a new statement suggested in Round 2)

11. Quality Indicator #9 - *Students are instructed in the proper methods of effective research, including assessment of the validity of resources.*
The panel did not reach consensus on whether to use one of the revised statements or keep it in its original format. The following are the responses selected by the majority of the panel (majority=70% or more). Please choose the one you feel may best be used for evaluation of an online education program. We are looking for 70% agreement.

☐ 1. Students are engaged in new digital/media literacy skill development, including assessment of the validity of resources. (12.8% of the panel selected this option)

☐ 2. Students learn appropriate methods for effective research, including assessment of the validity of resources and the ability to master resources in an online environment.

(30.8% of the panel selected this option)

☐ 3. Divide into two statements: Students are instructed in the methods of effective research if applicable to their discipline. Students are instructed in methods of information literacy, including assessment of the validity of sources and proper citation. (17.9% of the panel selected this option)

☐ 4. Keep the statement in its original format. (17.9% of the panel selected this option)

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

The panel did not reach consensus on whether to use one of the revised statements or keep it in its original format. The following are the responses selected by the majority of the panel (majority=70% or more). Please choose the one you feel may best be used for evaluation of an online education program. We are looking for 70% agreement.

☐ 1. Before starting an online program, students are advised about the program to determine (1) if they possess the self-motivation and commitment to learn at a distance, (2) if they have access to the minimal technology required by the course design, and (3) if they have mastery of the minimal technology or the opportunity to master the skills prior to the start of the course. (15.4% of the panel selected this option)

☐ 2. Before starting an online program, students are advised about the requirements of self-motivation and commitment that contribute to student success and about the minimal technology requirements required by the course design (Student Support Category). (12.8% of the panel selected this option)

☐ 3. Divide into two questions: 1) Before starting an online program, students are advised about the program to determine if they possess the self-motivation and commitment to learn at a distance. (Student Support Category) 2) Before starting an online program, students are advised about the program to determine if they have access to the minimal technology required by the course design (Course Development Category). (28.2% of the panel selected this option)

☐ 4. Keep the statement in its original format. (23.1% of the panel selected this option)

13. Quality Indicator #10 (*Before starting an online program, students are advised about the program to determine (1) if they possess the self-motivation and commitment to learn at a distance and (2) if they have access to the minimal technology required by the course design)* is currently in the Course Structure category; however, several have suggested it be moved to Student Support.

Please select the category that best suits this quality indicator.

☐ Course Structure Category

☐ Student Support Category

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

The panel did not reach consensus on whether to use one of the revised statements or keep it in its original format. The following are the responses selected by the majority of the panel (majority=70% or more). Please choose the one you feel may best be used for evaluation of an online education program. We are looking for 70% agreement.

☐ 1. Students are provided with course information that outlines course objectives, concepts, and ideas, and learning outcomes for each course are summarized in a clearly written, straightforward statement. (15.4% of the panel selected this option)

☐ 2. Students are provided with a list of the course objectives, a description of the fundamental concepts and ideas addressed in the course, and the learning outcomes students are expected to achieve are clearly written. (12.8% of the panel selected this option)

☐ 3. The online course site includes a syllabus outlining course objectives, learning outcomes, evaluation methods, textbook information, and other related course information, making course requirements transparent at time of registration. (17.9% of the panel selected this option)

☐ 4. Students are provided with a course syllabus that outlines course objectives, concepts, and ideas, and learning outcomes for each course are summarized in a clearly written, straightforward statement. (15.4% of the panel selected this option)

☐ 5. Keep the statement in its original format. (12.8% of the panel selected this option)

15. Quality Indicator #12 - *Students have access to sufficient library resources that may include a "virtual library" accessible through the World Wide Web.*
The panel did not reach consensus on whether to use one of the revised statements or keep it in its original format. The following are the responses selected by the majority of the panel (majority=70% or more). Please choose the one you feel may best be used for evaluation of an online education program. We are looking for 70% agreement.

☐ 1. Students have access to sufficient library resources that include a "virtual library" accessible online. (7.9% of the panel selected this option)

☐ 2. Students have access to sufficient library resources that may include a "virtual library" and other online resources accessible through the Internet. (10.5% of the panel selected this option)

☐ 3. Students have access to sufficient library resources online and in print. (10.5% of the panel selected this option)

☐ 4. Students have online access to sufficient library resources for their program of study. (7.9% of the panel selected this option)

☐ 5. The institution ensures that all distance education students, regardless of where they are located, have access to library/learning resources adequate to support the courses they are taking (SACS statement). (36.8% of the panel selected this option)

☐ 6. Keep the statement in its original format. (10.5% of the panel selected this option)
16. Quality Indicator #13 - *Faculty and students agree upon expectations regarding times*

*for student assignment completion and faculty response.*
The panel did not reach consensus on which revised statement to use. The following are the responses selected by the majority of the panel (majority=70% or more). Please choose the one you feel may best be used for evaluation of an online education program. We are looking for 70% agreement.

☐ 1. Faculty clearly articulate (or explain) expectations regarding times for student assignment completion and faculty response. (10.5% of the panel selected this option)

☐ 2. Faculty clearly design, define and state expectations regarding times for student assignment completion and faculty response. (13.2% of the panel selected this option)

☐ 3. The instructor clearly articulates the expectations for student regarding assignment due dates and faculty response times. (13.2% of the panel selected this option)

☐ 4. Course syllabus is clear on course communication policies and reasonable faculty response time to student assignments or questions. (10.5% of the panel selected this option)

☐ 5. Expectations for student assignment completion and faculty response are clearly outlined in the course syllabus. (13.2% of the panel selected this option)

☐ 6. Expectations for student assignment completion, grade policy and faculty response are clearly provided in the course syllabus. (23.7% of the panel selected this option)

17. Quality Indicator #14 - *Students receive information about programs, including admission requirements, tuition and fees, books and supplies, technical and proctoring requirements, and student support services.*
The panel did not reach consensus on which revised statement to use. The following are the responses selected by the majority of the panel (majority=70% or more). Please choose the one you feel may best be used for evaluation of an online education program. We are looking for 70% agreement.

☐ 1. Students receive (or have access to) information about programs, including admission requirements, tuition and fees, books and supplies, technical and proctoring requirements, and student support services prior to admission and course registration. (40.5% of the panel selected this option)

☐ 2. Relevant program and institutional information is accessible to students. This information includes admission requirements, tuition and fees, books and supplies, technical and proctoring requirements, and student support services. (27% of the panel selected this option)

☐ 3. Online student services information about programs including application, counseling, tutoring, library services, financial aid, and other student support services is readily available through web links in the course. (13.5% of the panel selected this option)

18. Quality Indicator #15 - *Students are provided with hands-on training and information*

*to aid them in securing material through electronic databases, interlibrary loans, government archives, news services, and other sources.*
The panel did not reach consensus on which revised statement to use. The following are the responses selected by the majority of the panel (majority=70% or more). Please choose the one you feel may best be used for evaluation of an online education program. We are looking for 70% agreement.

☐ 1. Students are provided with virtual or electronic training and information to aid them in securing material through electronic databases, interlibrary loans, government archives, news services, and other sources. (15.8% of the panel selected this option)

☐ 2. Students are provided with tutorials and information to aid them in securing material through electronic databases, interlibrary loans, government archives, news services, and other sources. (13.2% of the panel selected this option)

☐ 3. Online library services information is provided to students via web links. (15.8% of the panel selected this option)

☐ 4. The institution provides orientation to distance education students concerning available student resources and how to access and use them. (13.2% of the panel selected this option)

☐ 5. Students are provided with training and information, in a variety of formats, to aid them in securing material through electronic databases, interlibrary loans, government archives, news services, and other sources. (13.2% of the panel selected this option)

☐ 6. Students are provided with access to training and information they will need to secure required materials through electronic databases, interlibrary loans, government archives, new services and other sources. (21.1% of the panel selected this option)

19. Quality Indicator #16 - *Throughout the duration of the course/program, students have access to technical assistance, including detailed instructions regarding the electronic media used, practice sessions prior to the beginning of the course, and convenient access to technical support staff.*
The panel did not reach consensus on which revised statement to use. The following are the responses selected by the majority of the panel (majority=70% or more). Please choose the one you feel may best be used for evaluation of an online education program. We are looking for 70% agreement.

☐ 1. Throughout the duration of the course/program, students have access to technical assistance, including detailed instructions regarding the electronic media used, and convenient access to technical support staff. (24.3% of the panel selected this option)

☐ 2. Throughout the duration of the course/program, students have access to appropriate technical assistance and technical support staff. (51.4% of the panel selected this option)

20. Quality Indicator #17 - *Questions directed to student service personnel are answered accurately and quickly, with a structured system in place to address student complaints.*
The panel did not reach consensus on whether to use one of the revised statements or keep it in its original format. The following are the responses selected by the majority of the panel (majority=70% or more). Please choose the one you feel may best be used for evaluation of an online education program. We are looking for 70% agreement.

☐ 1. Student support personnel are available to address student questions, problems, bug reporting, and complaints. (58.3% of the panel selected this option)

☐ 2. Keep the statement in its original format. (25% of the panel selected this option)

☐ 3. Students' questions, issues and complaints are dealt with are addressed expeditiously. (This is a new statement suggested in Round 2)

21. Quality Indicator #18 - *Technical assistance in course development is available to faculty, who are encouraged to use it.*
The panel did not reach consensus on whether to use one of the revised statements or keep it in its original format. The following are the responses selected by the majority of the panel (majority=70% or more). Please choose the one you feel may best be used for evaluation of an online education program. We are looking for 70% agreement.

☐ 1. Technical and pedagogical assistance in course development is available to faculty, who are encouraged to use it. (13.5% of the panel selected this option)

☐ 2. Technical assistance in course development is available to faculty and professional development or certification training is required to ensure quality and standards. (10.8% of the panel selected this option)

☐ 3. Instructional design and technology support in course development and delivery is available to faculty, who are encouraged to use it. (16.2% of the panel selected this option)

☐ 4. Keep the statement in its original format. (10.8% of the panel selected this option)

☐ 5. Combine #18 and #19 - Technical assistance in course development and assistance with the transition to teaching online is provided. (#19 - Faculty members are assisted in the transition from classroom teaching to online instruction and are assessed during the process.)(24.3% of the panel selected this option)

☐ 6. Technical and online pedagogical training for faculty is required when courses are first developed. Instructional designers are available for consultation when needed during the semester. (This is a new statement suggested in Round 2)

22. Quality Indicator #19 - *Faculty members are assisted in the transition from classroom teaching to online instruction and are assessed during the process.*
The panel did not reach consensus on whether to use one of the revised statements or keep it in its original format. The following are the responses selected by the majority of the panel (majority=70% or more). Please choose the one you feel may best be used for evaluation of an online education program. We are looking for 70% agreement.

☐ 1. Faculty members are assisted in the transition from classroom teaching to online

instruction. (13.9% of the panel selected this option)

☐ 2. Faculty members are assisted with pedagogical and technological issues that ensue in the transition from classroom teaching to online instruction. The effectiveness of the support provided is assessed during the process. (11.1% of the panel selected this option)

☐ 3. Faculty members are assisted in the transition from classroom teaching to online instruction and are assessed according to institutional practices for evaluation. (13.9% of the panel selected this option)

☐ 4. Keep the statement in its original format. (11.1% of the panel selected this option)

☐ 5. Combine #18 and #19 - Technical assistance in course development and assistance with the transition to teaching online is provided. (#18 Technical assistance in course development is available to faculty, who are encouraged to use it). (19.4% of the panel selected this option)

☐ 6. Combine #19 and #20 Faculty members are trained and assisted in blended and online course development and ongoing delivery, with opportunity for peer mentoring. (#20 - Instructor training and assistance, including peer mentoring, continues through the progression of the online course). (11.1% of the panel selected this option)

23. Quality Indicator #20 - *Instructor training and assistance, including peer mentoring, continues through the progression of the online course.*

The panel did not reach consensus on whether to use one of the revised statements or keep it in its original format. The following are the responses selected by the majority of the panel (majority=70% or more). Please choose the one you feel may best be used for evaluation of an online education program. We are looking for 70% agreement.

☐ 1. Instructors are prepared to teach distance education courses and the institution ensures faculty receive training, assistance and support at all times during the development and delivery of courses. (37.8% of the panel selected this option)

☐ 2. Keep the statement in its original format. (13.5% of the panel selected this option)

☐ 3. Combine #19 and #20 - Faculty members are trained and assisted in blended and online course development and ongoing delivery, with opportunity for peer mentoring (#19 Faculty members are assisted in the transition from classroom teaching to online instruction and are assessed during the process). (24.3% of the panel selected this option)

24. Quality Indicator #21 - *Faculty members are provided with written resources to deal with issues arising from student use of electronically-accessed data.*

The panel did not reach consensus on which revised statement to use. The following are the responses selected by the majority of the panel (majority=70% or more). Please choose the one you feel may best be used for evaluation of an online education program. We are looking for 70% agreement.

☐ 1. Faculty members are provided with current institutional policies to deal with issues arising from student use of electronically-accessed data. (15.8% of the panel selected this option)

☐ 2. Faculty receive training and materials related to Fair Use, plagiarism, and other

relevant legal and ethical concepts. (21.1% of the panel selected this option)

☐ 3. Faculty members are provided with resources to deal with issues arising from student use of electronically-accessed data. (13.2% of the panel selected this option)

☐ 4. Faculty members have the resources and procedures they need in order to deal with issues arising from student use of electronic data and information. (13.2% of the panel selected this option)

☐ 5. Faculty members are provided with a variety of resources, in multiple formats, to deal with issues arising from student use of electronically-accessed data including a focus on students who have disabilities, netiquette, plagiarism and copyright violation specifications. (10.5% of the panel selected this option)

25. Quality Indicator #22 - *The program's educational effectiveness and teaching/learning process is assessed through an evaluation process that uses several methods and applies specific standards.*

The panel did not reach consensus on which revised statement to use. The following are the responses selected by the majority of the panel (majority=70% or more). Please choose the one you feel may best be used for evaluation of an online education program. We are looking for 70% agreement.

☐ 1. The program is assessed through an evaluation process that applies specific established standards. (28.9% of the panel selected this option)

☐ 2. The program's educational effectiveness and teaching/learning process (including learning outcomes) is assessed through an evaluation process that uses several methods and applies specific standards. (26.3% of the panel selected this option)

☐ 3. Keep the statement in its original format. (28.9% of the panel selected this option)

26. Quality Indicator #23 - *Data on enrollment, costs, and successful/innovative uses of technology are used to evaluate program effectiveness.*

The panel did not reach consensus on whether to use one of the revised statements or keep it in its original format. The following are the responses selected by the majority of the panel (majority=70% or more). Please choose the one you feel may best be used for evaluation of an online education program. We are looking for 70% agreement.

☐ 1. Data on enrollment, costs, and learning outcomes are used to evaluate program effectiveness. (15.8% of the panel selected this option)

☐ 2. Data on enrollment, costs, learning outcomes, successful /innovative uses of technology and other factors (i.e., administrative support, how a program fits in the strategic framework of institution, faculty support) are used to evaluate program effectiveness. (15.8% of the panel selected this option)

☐ 3. A variety of data (academic and administrative information) are used to regularly and frequently evaluate program effectiveness and to guide changes toward continual improvement. (34.2% of the panel selected this option)

☐ 4. Keep the statement in its original format. (13.2% of the panel selected this option)

27. Quality Indicator #24 - *Intended learning outcomes are reviewed regularly to ensure clarity, utility, and appropriateness.*
The following are the responses selected by the majority of the panel (majority=70% or more). Please choose the one you feel may best be used for evaluation of an online education program. We are looking for 70% agreement.

☐ 1. Intended learning outcomes at the course and program level are reviewed regularly to ensure clarity, utility, and appropriateness. (36.8% of the panel selected this option)

☐ 2. Keep the statement in its original format. (34.2% of the panel selected this option)

28. The following statements were suggested as additional quality indicators by members of the panel in Round 1 in the area of *Institutional Support/Technology Support*. However, these statements presented did not quite reach consensus in spite of more than 70% of the panel finding them relevant. Please reevaluate each statement for relevance, keeping in mind that a mean of 4.0 or above needs to be achieved to include these statements as quality indicators (Relevant=4, Definitely Relevant=5).

| | Definitely Not Relevant (Or Already Listed) | Not Relevant | Slightly Relevant | Relevant | Definitely Relevant |
|---|---|---|---|---|---|
| Appropriate policies are developed, reviewed, and disseminated to all stakeholders. (Mean=3.84 in last round) | ☐ | ☐ | ☐ | ☐ | ☐ |
| Faculty, staff, and students are supported in the development and use of new technologies and skills. (Mean=3.74 in last round) | ☐ | ☐ | ☐ | ☐ | ☐ |
| The course delivery technology is considered a mission critical enterprise system and supported as such. (Mean=3.89 in last round) | ☐ | ☐ | ☐ | ☐ | ☐ |

29. The following statements were suggested as additional quality indicators by members of the panel in Round 1 in the area of *Institutional Support/Technology Support*. Consensus was not achieved. However, because 70% of the panel marked them as Slightly Relevant, Relevant, or Relevant, your feedback is still needed. Please reevaluate each statement for relevance, keeping in mind that a mean of 4.0 or above needs to be achieved to include these statements as quality indicators (Relevant=4, Definitely Relevant=5).

| | Definitely Not Relevant (Or Already Listed) | Not Relevant | Slightly Relevant | Relevant | Definitely Relevant |
|---|---|---|---|---|---|
| Underlying learning managements systems are flexible enough to support emerging technologies, e.g. social networking tools, mobile devices, Web 2.0, etc. (Mean=3.65 in last round) | ☐ | ☐ | ☐ | ☐ | ☐ |
| The institution makes bookstore services available to students. (Mean=3.39 in last round) | ☐ | ☐ | ☐ | ☐ | ☐ |
| The institution has defined the strategic value of distance learning to its enterprise and to its parts. (Mean=3.59 in last round) | ☐ | ☐ | ☐ | ☐ | ☐ |
| Sustainability and Scalability: A stable support mechanism/financial model to reduce recreating the same course multiple times for example if an instructor leaves the university and there is no agreement governing the intellectual property that would allow the continued use of the course. (Mean=3.66 in last round) | ☐ | ☐ | ☐ | ☐ | ☐ |
| Students ensured all they need for degree is offered in program before enrolling. (Mean=3.45 in the last round) | ☐ | ☐ | ☐ | ☐ | ☐ |

30. The following statements were suggested as additional quality indicators by members of the panel in Round 1 in the area of *Course Development*. However, these statements presented did not quite reach consensus in spite of more than 70% of the panel finding them relevant. Please reevaluate each statement for relevance, keeping in mind that a mean of 4.0 or above needs to be achieved to include these statements as quality indicators (Relevant=4, Definitely Relevant=5).

| | Definitely Not Relevant (Or Already Listed) | Not Relevant | Slightly Relevant | Relevant | Definitely Relevant |
|---|---|---|---|---|---|
| Current and emerging technologies are evaluated and recommended for online teaching and learning. (Mean=3.87 in last round) | ☐ | ☐ | ☐ | ☐ | ☐ |

| | | | | | |
|---|---|---|---|---|---|
| Learning objectives describe outcomes that are measurable. (Mean=3.82 in last round) | ☐ | ☐ | ☐ | ☐ | ☐ |
| Selected assessments measure the course learning objectives and are appropriate for an online learning environment. (Mean=3.92 in last round) | ☐ | ☐ | ☐ | ☐ | ☐ |
| Course objectives provide opportunity for student interaction. (Mean=3.84 in last round) | ☐ | ☐ | ☐ | ☐ | ☐ |
| Instructional design is provided for creation of effective pedagogy for both synchronous and asynchronous class sessions. (Mean=3.84 in last round) | ☐ | ☐ | ☐ | ☐ | ☐ |

31. The following statements were suggested as additional quality indicators by members of the panel in Round 1 in the area of *Course Development*. Consensus was not achieved. However, because 70% of the panel marked them as Slightly Relevant, Relevant, or Relevant, your feedback is still needed. Please reevaluate each statement for relevance, keeping in mind that a mean of 4.0 or above needs to be achieved to include these statements as quality indicators (Relevant=4, Definitely Relevant=5).

| | Definitely Not Relevant (Or Already Listed) | Not Relevant | Slightly Relevant | Relevant | Definitely Relevant |
|---|---|---|---|---|---|
| Curriculum development is a core responsibility for faculty. (Mean=3.32 in last round) | ☐ | ☐ | ☐ | ☐ | ☐ |
| Development of online course materials takes into account the changing context of media delivery. (Mean=3.55 in last round) | ☐ | ☐ | ☐ | ☐ | ☐ |

32. The following statement was suggested as an additional quality indicator by members of the panel in Round 1 in the area of *Teaching and Learning*. However, this statement presented did not quite reach consensus in spite of more than 70% of the panel finding it relevant. Please reevaluate the statement for relevance, keeping in mind that a mean of 4.0 or above needs to be achieved to include these statements as quality indicators (Relevant=4, Definitely Relevant=5).

| | Definitely Not Relevant (Or Already Listed) | Not Relevant | Slightly Relevant | Relevant | Definitely Relevant |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| Online courses/programs use one course management platform, creating a single delivery model, and students receive an online instructional orientation to the course management platform. (Mean=3.66 in last round) | ☐ | ☐ | ☐ | ☐ | ☐ |

33. The following statements were suggested as additional quality indicators by members of the panel in Round 1 in the area of *Teaching and Learning*. Consensus was not achieved. However, because 70% of the panel marked them as Slightly Relevant, Relevant, or Relevant, your feedback is still needed. Please reevaluate each statement for relevance, keeping in mind that a mean of 4.0 or above needs to be achieved to include these statements as quality indicators (Relevant=4, Definitely Relevant=5).

| | Definitely Not Relevant (Or Already Listed) | Not Relevant | Slightly Relevant | Relevant | Definitely Relevant |
|---|---|---|---|---|---|
| Students are provided access to library professionals and resources that help them to deal with the overwhelming amount of online resources. (Mean=3.39 in last round) | ☐ | ☐ | ☐ | ☐ | ☐ |
| Course material presented in a variety of ways. (Mean=3.42 in last round) | ☐ | ☐ | ☐ | ☐ | ☐ |
| Interactive elements such as video and flash graphics to help engage the students' understanding of key learning objectives. (Mean=3.30 in last round) | ☐ | ☐ | ☐ | ☐ | ☐ |

34. The following statements were suggested as additional quality indicators by members of the panel in Round 1 in the area of *Course Structure*. However, these statements presented did not quite reach consensus in spite of more than 70% of the panel finding them relevant. Please reevaluate each statement for relevance, keeping in mind that a mean of 4.0 or above needs to be achieved to include these statements as quality indicators (Relevant=4, Definitely Relevant=5).

| | Definitely Not Relevant (Or Already Listed) | Not Relevant | Slightly Relevant | Relevant | Definitely Relevant |
|---|---|---|---|---|---|
| Opportunities/tools provided to encourage student-student collaboration (i.e., web conferencing, instant messaging, etc). | ☐ | ☐ | ☐ | ☐ | ☐ |

(Mean=3.50 in last round)
Links or explanations of technical support are available in the course. (Mean=3.95 in last round)

35. The following statement was suggested as an additional quality indicator by members of the panel in Round 1 in the area of *Course Structure*. Consensus was not achieved. However, because 70% of the panel marked it as Slightly Relevant, Relevant, or Relevant, your feedback is still needed. Please reevaluate the statement for relevance, keeping in mind that a mean of 4.0 or above needs to be achieved to include these statements as quality indicators (Relevant=4, Definitely Relevant=5).

| | Definitely Not Relevant (Or Already Listed) | Not Relevant | Slightly Relevant | Relevant | Definitely Relevant |
|---|---|---|---|---|---|
| Honor code used to enable a culture of accountability. (Mean=3.39 in last round) | | | | | |

36. The following statements were suggested as additional quality indicators by members of the panel in Round 1 in the area of *Student Support*. However, these statements presented did not quite reach consensus in spite of more than 70% of the panel finding them relevant. Please reevaluate each statement for relevance, keeping in mind that a mean of 4.0 or above needs to be achieved to include these statements as quality indicators (Relevant=4, Definitely Relevant=5).

| | Definitely Not Relevant (Or Already Listed) | Not Relevant | Slightly Relevant | Relevant | De R |
|---|---|---|---|---|---|
| Students are provided relevant information: ISBN numbers, suppliers, etc. and delivery modes for all required; instructional materials: digital format, e-packs, print format, etc. to ensure easy access. (Mean=3.50 in last round) | | | | | |
| Students should be provided a way to interact with other students in an online community. (Mean=3.61 in last round) | | | | | |
| Program demonstrates a student-centered focus rather than trying to fit service to the distance education student in on-campus student services. (Mean=3.79 in last round) | | | | | |
| Efforts are made to engage students with the program and institution. (Mean=3.58 in last | | | | | |

round)

| | | | | | |
|---|---|---|---|---|---|
| Students are instructed in the appropriate ways of communicating with faculty and students. (Mean=3.68 in last round) | ☐ | ☐ | ☐ | ☐ | ☐ |
| Students are instructed in the appropriate ways of enlisting help from the program Support services are designed to build communication and affiliation among the online student population. (Mean=3.50 in last round) | ☐ | ☐ | ☐ | ☐ | ☐ |
| Students agree and understand the expectations of the program and courses. (Mean=3.66 in last round) | ☐ | ☐ | ☐ | ☐ | ☐ |
| The institution provides guidance to both students and faculty in the use of all forms of technologies used for course delivery. (Mean=3.42 in last round) | ☐ | ☐ | ☐ | ☐ | ☐ |
| Students have access to effective academic, personal, and career counseling. (Mean=3.82 in last round) | ☐ | ☐ | ☐ | ☐ | ☐ |
| Tutoring is available as a learning resource. (Mean=3.89 in last round) | ☐ | ☐ | ☐ | ☐ | ☐ |
| Minimum technology standards are established and made available to students. (Mean=3.97 in last round) | ☐ | ☐ | ☐ | ☐ | ☐ |

37. The following statements were suggested as additional quality indicators by members of the panel in Round 1 in the area of *Student Support*. Consensus was not achieved. However, because 70% of the panel marked them as Slightly Relevant, Relevant, or Relevant, your feedback is still needed. Please reevaluate each statement for relevance, keeping in mind that a mean of 4.0 or above needs to be achieved to include these statements as quality indicators (Relevant=4, Definitely Relevant=5).

| | Definitely Not Relevant (Or Already Listed) | Not Relevant | Slightly Relevant | Relevant | Definitely Relevant |
|---|---|---|---|---|---|
| While technologies may not be supported centrally (like available in the cloud or openly), there needs to guidance on how these tools will be supported and the ramifications to students. (Mean=3.05 in last round) | ☐ | ☐ | ☐ | ☐ | ☐ |
| Automated support tools are available for faculty to provide early intervention to support student success. (Mean=3.51 | ☐ | ☐ | ☐ | ☐ | ☐ |

in last round)

38. The following statement was suggested as an additional quality indicator by members of the panel in Round 1 in the area of *Faculty Support*. However, this statement presented did not quite reach consensus in spite of more than 70% of the panel finding it relevant. Please reevaluate the statement for relevance, keeping in mind that a mean of 4.0 or above needs to be achieved to include these statements as quality indicators (Relevant=4, Definitely Relevant=5).

| | Definitely Not Relevant (Or Already Listed) | Not Relevant | Slightly Relevant | Relevant | Definitely Relevant |
|---|---|---|---|---|---|
| Faculty workshops are provided to make them aware of emerging technologies and the selection and use of these tools. (Mean=3.50 in last round) | ◉ | ○ | ○ | ○ | ○ |

39. The following statements were suggested as additional quality indicators by members of the panel in Round 1 in the area of *Faculty Support*. Consensus was not achieved. However, because 70% of the panel marked them as Slightly Relevant, Relevant, or Relevant, your feedback is still needed. Please reevaluate each statement for relevance, keeping in mind that a mean of 4.0 or above needs to be achieved to include these statements as quality indicators (Relevant=4, Definitely Relevant=5).

| | Definitely Not Relevant (Or Already Listed) | Not Relevant | Slightly Relevant | Relevant | Definitely Relevant |
|---|---|---|---|---|---|
| New learning skills for online teaching and learning are identified. (Mean=3.30 in last round) | ○ | ○ | ○ | ○ | ○ |
| Review of web.2.0 tools and emerging technologies and faculty. (Mean=3.14 in last round) | ○ | ○ | ○ | ○ | ○ |

40. The following statements were suggested as additional quality indicators by members of the panel in Round 1 in the area of *Evaluation and Assessment*. However, these statements presented did not quite reach consensus in spite of more than 70% of the panel finding them relevant. Please reevaluate each statement for relevance, keeping in mind that a mean of 4.0 or above needs to be achieved to include these statements as quality indicators (Relevant=4, Definitely Relevant=5).

| | Definitely Not Relevant (Or Already Listed) | Not Relevant | Slightly Relevant | Relevant | Definitely Relevant |
|---|---|---|---|---|---|
| A process is in place for the assessment of faculty and student support services. (Mean=3.97 in last round) | ☐ | ☐ | ☐ | ☐ | ☐ |
| Course and program retention is assessed. Results of course evaluations are used as part of faculty/instructor performance evaluations. (Mean=3.84 in last round) | ☐ | ☐ | ☐ | ☐ | ☐ |
| Recruitment and retention are examined and reviewed. (Mean=3.55 in last round) | ☐ | ☐ | ☐ | ☐ | ☐ |
| Program demonstrates compliance and review of accessibility standards (Section 508, etc.) (Mean=3.82 in last round) | ☐ | ☐ | ☐ | ☐ | ☐ |
| Course evaluations are examined in relation to faculty performance evaluations. (Mean=3.68 in last round) | ☐ | ☐ | ☐ | ☐ | ☐ |
| Faculty performance is regularly assessed. (Mean=3.84 in last round) | ☐ | ☐ | ☐ | ☐ | ☐ |
| Alignment of learning outcomes from course to course exists. (Mean=3.63 in last round) | ☐ | ☐ | ☐ | ☐ | ☐ |

41. The following statements were suggested as additional quality indicators by members of the panel in Round 1 in the area of *Institutional Support/Technology Support*. Consensus was not achieved. However, because 70% of the panel marked them as Slightly Relevant, Relevant, or Relevant, your feedback is still needed. Please reevaluate each statement for relevance, keeping in mind that a mean of 4.0 or above needs to be achieved to include these statements as quality indicators (Relevant=4, Definitely Relevant=5).

| | Definitely Not Relevant (Or Already Listed) | Not Relevant | Slightly Relevant | Relevant | Definitely Relevant |
|---|---|---|---|---|---|
| Online learning should be robustly evaluated using tools widely available, so that faculty and students know what students perceive about the efficacy of online learning and so the institution knows how they compare and how they | ☐ | ☐ | ☐ | ☐ | ☐ |

can improve. (Mean=3.42 in last round)

The relationship between online education programs and institutional mission must be included as a measure. (Mean=3.32 in last round)

Student evaluations of course/instructor/program are made available. (Mean=3.43 in last round)

**42. Provide any additional quality indicators you feel are missing after completing this survey round.**

# Appendix R

## Delphi Round III: Initial Email for Survey

May 4, 2010
To: [Email]
From: kaye@dbu.edu
Round 3: A Quality Scorecard for the Administration of Online Education Programs

Dear [FirstName],

Thank you again for your participation in this panel study for quality online education. I have presented the data collected from the second survey for your additional feedback. Your responses will be again collected and the overall results will make up the next round of the survey. Please remember that the ultimate goal of our project is to develop a scorecard or rubric for evaluating an online education program, one that we could all generally use as administrators.

The second survey is now open until May 17, 2010 at 5pm Central Time. However, if all panelists have responded before then, the survey will close and we will move to the next round. I believe we are about midway through the process.
The survey is located at: http://www.surveymonkey.com/s.aspx

I have placed a copy of the questions in round 3 online (http://www.kayeshelton.com/round3questions.pdf) as well as an overview of the scorecard so far, based upon your responses (http://www.kayeshelton.com/scorecard_overview.pdf). You may want to download them before completing the survey. These links are also provided in the first page of the survey.

Should you have any questions or comments regarding this process, please feel free to contact me at kaye@dbu.edu or 214-235-6685. This link is uniquely tied to this survey and your email address. Please do not forward this message.

Kaye Shelton
Ph.D. Candidate, University of Nebraska-Lincoln
Dean, Online Education
Dallas Baptist University
214 333 5283 OFC
kaye@dbu.edu

If you wish to no longer participate in this study, click here
http://www.surveymonkey.com/optout.aspx

# Appendix S

## Delphi Round III: First Reminder Email

May 11, 2010
To: [Email]
From: kaye@dbu.edu

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Subject: Quality Scorecard for Online Education Survey

Dear [FirstName],

This is just a reminder that I will close the data collection survey on May 17 at 5pm, so there are just a few days left for you to provide your responses.

Please remember that the ultimate goal of our project is to develop a scorecard or rubric for evaluating an online education program, one that we could all generally use as administrators.

The survey is located at: http://www.surveymonkey.com/s.aspx

I have placed a copy of the questions in round 3 online (http://www.kayeshelton.com/round3questions.pdf) as well as an overview of the scorecard so far, based upon your responses (http://www.kayeshelton.com/scorecard_overview.pdf). You may want to download them before completing the survey. These links are also provided in the first page of the survey.

Should you have any questions or comments regarding this process, please feel free to contact me at kaye@dbu.edu or 214-235-6685. This link is uniquely tied to this survey and your email address. Please do not forward this message.

Kaye Shelton
Ph.D. Candidate, University of Nebraska-Lincoln
Dean, Online Education
Dallas Baptist University
214 333 5283 OFC
214 333 5373 FAX
kaye@dbu.edu

If you wish to no longer participate in this study, click here
http://www.surveymonkey.com/optout.aspx

# Appendix T

## Delphi Round III: Final Email on Last Day of Study

May 17, 2010

Dear Panel Member,

Just a final reminder…Round 3 will close today, May 17 at 5pm Central Time. (If you are receiving this email, Survey Monkey reports you have not completed the survey.) If you need a link to the survey, because your email was caught in a spam filter, please respond to this email and I will send your specific link back to you.

Thank you again for your part in this study! I think you are going to be pleased with the final results. If you can, please add both email addresses to your safe list: kaye@dbu.edu and kayeshelton@charter.net.

Kaye Shelton
Ph.D. Candidate, University of Nebraska-Lincoln
Dean, Online Education
Dallas Baptist University
3000 Mountain Creek Parkway
Dallas, TX 75211
214 333 5283 OFC
214 333 5373 FAX
kaye@dbu.edu

# Appendix U

## Delphi Round III: Additional Email Sent to Reopen Survey for One Day

May 19, 2010

To: [Email]

From: kaye@dbu.edu

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Subject: Quality Scorecard Survey Open for One More Day

Dear [FirstName]

I wanted to give you one more opportunity to participate in the survey for round 3. We are more than halfway through the process. If you are unable to participate in this round, you won't be able to participate in the future rounds but I will still send you a copy of the completed scorecard. I understand that life gets in the way.

Here is a link to the survey:
http://www.surveymonkey.com/s.aspx

This link is uniquely tied to this survey and your email address. Please do not forward this message.

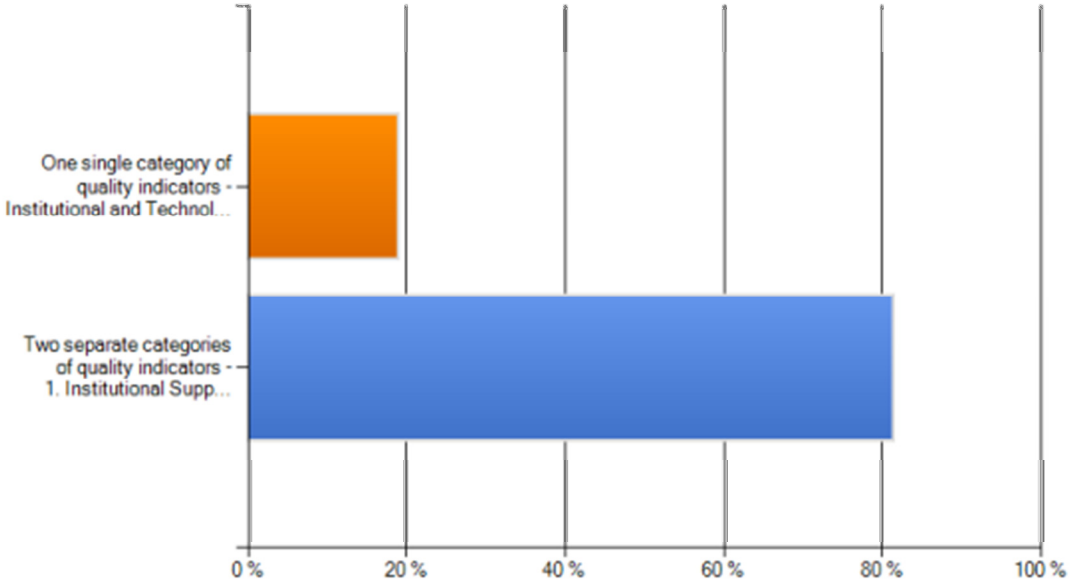
Thanks for your participation! Let me know if you need anything more.

Kaye Shelton
214 235 6635

# Appendix V

## Delphi Round III Results

Question 1 – Institutional and Technology Support Category



2. Additional categories suggested for inclusion in the scorecard in Round 1 and evaluated in Round 2. Consensus was not reached. The following are those suggestions with 70% or more of the panel rating them Slightly Relevant, Relevant or Definitely Relevant. We need a mean of 4.0 or more and 70% of the panel in agreement for these to be considered stand alone categories
Please rate the following.

| | Definitely Not Relevant as a Category | Not Relevant as a Category | Slightly Relevant as a Category | Relevant as a Category | Definitely Relevant as a Category | Rating Average | Response Count |
|---|---|---|---|---|---|---|---|
| **Social and Student Engagement** Mean 3,81, 70% panel agreement) | 0.0% (0) | 0.0% (0) | 29.2% (7) | 37.5% (9) | 33.3% (8) | 4.04 | 24 |
| **Accessibility** (Mean 4.60, 62.5% panel agreement) | 0.0% (0) | 0.0% (0) | 33.3% (7) | 47.6% (10) | 19.0% (4) | 3.86 | 21 |
| **Instructional Design** (Mean=4.03, 60% panel agreement) | 0.0% (0) | 6.7% (2) | 6.7% (2) | 40.0% (12) | 46.7% (14) | 4.27 | 30 |

Questions 3-

| Original IHEP Indicator | Suggested Revisions (After Round 2 Panel Determination) |
|---|---|
| 1. *A documented technology plan that includes electronic security measures (i.e., password protection, encryption, back-up systems) is in place and operational to ensure both quality standards and the integrity and validity of information* | • A documented technology plan that includes electronic security measures (e.g., password protection, encryption, secure online or proctored exams, etc.) is in place and operational to ensure quality standards, adherence to FERPA and the integrity and validity of information. (45% of the panel selected this option) |
| 2. *The reliability of the technology delivery system is as failsafe as possible* | • The technology delivery systems are highly reliable and operable with measurable standards being utilized such as system downtime tracking or task benchmarking. (42.5% of the panel selected this option) |
| 3. *A centralized system provides support for building and maintaining the distance education infrastructure.* | • A centralized technology system provides support for building and maintaining the distance education infrastructure and quality oversight. (17.9% of the panel selected this option)<br><br>• A centralized technology system provides support for building and maintaining the distance education infrastructure which is guided by input from both faculty and administrators and the institution's strategic plan. (25.6% of the panel selected this option)<br><br>• Keep the statement in its original format. (30.8% of the panel selected this option) |
| 4. *Guidelines regarding minimum standards are used for course development, design, and delivery, while learning outcomes—not the availability of existing technology—determine the technology being used to* | • Divide the statement into two different quality indicators 1) Guidelines regarding minimum standards are used for course development, design, and delivery of |

| Original IHEP Indicator | Suggested Revisions (After Round 2 Panel Determination) |
|---|---|
| *deliver course content.* | online instruction. 2) Technology is used as a tool to achieve learning outcomes in delivering course content. (23.1% of the panel selected this option) |
| 5. *Instructional materials are reviewed periodically to ensure they meet program standards.* | • Instructional materials are reviewed regularly to ensure they meet program standards. (15.8% of the panel selected this option)<br>• Instructional materials are reviewed periodically to ensure they meet program standards with the recommended improvements implemented. (10.5% of the panel selected this option)<br>• Instructional materials, course syllabus and learning outcomes are reviewed periodically to ensure they meet program standards. (23.7% of the panel selected this option)<br>• Keep the statement in its original format. (21.1% of the panel selected this option)<br>• Instructional materials are reviewed periodically to ensure they meet program standards and that course information is up to date and relevant. (This is a new statement suggested in round 2 for evaluation) |
| 6. *Courses are designed to require students to engage themselves in analysis, synthesis, and evaluation as part of their course and program requirements.* | • Courses are designed so that students develop the necessary knowledge and skills to meet learning objectives at the course and program level. These may include engagement via analysis, synthesis and evaluation. (34.2% of the panel selected this option) |

| Original IHEP Indicator | Suggested Revisions (After Round 2 Panel Determination) |
|---|---|
| 7. *Student interaction with faculty and other students is an essential characteristic and is facilitated through a variety of ways, including voice-mail and/or e-mail.* | • Student interaction with faculty and other students is an essential characteristic and is facilitated through a variety of ways. (12.8% of the panel selected this option)<br><br>• Student-to-Student interaction and Faculty-to-student interaction are essential characteristics and are facilitated through a variety of ways. (23.1% of the panel selected this option)<br><br>• Student interaction with faculty and other students is an essential characteristic and is facilitated through a variety of ways both synchronous and asynchronous. 23.1% of the panel selected this option)<br><br>• Courses are designed to provide ample opportunity for student interaction with faculty and other students. (15.4% of the panel selected this option) |
| 8. *Feedback to student assignments and questions is constructive and provided in a timely manner.* | • Feedback on student assignments and questions is constructive and provided in a timely manner. (28.9% of the panel selected this option)<br><br>• Feedback on student assignments and questions is constructive and provided in a timely manner (as indicated in the course syllabus). (28.9% of the panel selected this option)<br><br>• Keep the statement in its original format. (26.3% of the panel selected this option) |

| Original IHEP Indicator | Suggested Revisions (After Round 2 Panel Determination) |
|---|---|
| | • To facilitate student retention and student success, feedback on student assignments and questions is constructive, and provided regularly using common technology tools readily available to faculty and students. (This is a new statement suggested in Round 2)<br><br>• To facilitate student success and retention, feedback on student assignments and questions is constructive and provided in a timely manner. (This is a new statement suggested in Round 2) |
| 9. *Students are instructed in the proper methods of effective research, including assessment of the validity of resources.* | • Students learn appropriate methods for effective research, including assessment of the validity of resources and the ability to master resources in an online environment. (30.8% of the panel selected this option) |
| 10. *Before starting an online program, students are advised about the program to determine (1) if they possess the self-motivation and commitment to learn at a distance and (2) if they have access to the minimal technology required by the course design.* | • Divide into two questions: 1) Before starting an online program, students are advised about the program to determine if they possess the self-motivation and commitment to learn at a distance. (Student Support Category) 2) Before starting an online program, students are advised about the program to determine if they have access to the minimal technology required by the course design (Course Development Category). (28.2% of the panel selected this option) |
| 11. *Students are provided with supplemental course information that* | • Students are provided with course information that outlines course |

| Original IHEP Indicator | Suggested Revisions (After Round 2 Panel Determination) |
|---|---|
| *outlines course objectives, concepts, and ideas, and learning outcomes for each course are summarized in a clearly written, straightforward statement.* | objectives, concepts, and ideas, and learning outcomes for each course are summarized in a clearly written, straightforward statement. (15.4% of the panel selected this option)<br><br>• Students are provided with a list of the course objectives, a description of the fundamental concepts and ideas addressed in the course, and the learning outcomes students are expected to achieve are clearly written. (12.8% of the panel selected this option)<br><br>• The online course site includes a syllabus outlining course objectives, learning outcomes, evaluation methods, textbook information, and other related course information, making course requirements transparent at time of registration. (17.9% of the panel selected this option)<br><br>• Students are provided with a course syllabus that outlines course objectives, concepts, and ideas, and learning outcomes for each course are summarized in a clearly written, straightforward statement. (15.4% of the panel selected this option)<br><br>• Keep the statement in its original format. (12.8% of the panel selected this option) |
| 12. *Students have access to sufficient library resources that may include a "virtual library" accessible through the World Wide Web.* | • The institution ensures that all distance education students, regardless of where they are located, have access to library/learning resources adequate to support the courses they are taking (SACS |

| Original IHEP Indicator | Suggested Revisions (After Round 2 Panel Determination) |
|---|---|
| | statement). (36.8% of the panel selected this option) |
| *13. Faculty and students agree upon expectations regarding times for student assignment completion and faculty response.* | • Expectations for student assignment completion, grade policy and faculty response are clearly provided in the course syllabus. (23.7% of the panel selected this option) |
| *14. Students receive information about programs, including admission requirements, tuition and fees, books and supplies, technical and proctoring requirements, and student support services.* | • Students receive (or have access to) information about programs, including admission requirements, tuition and fees, books and supplies, technical and proctoring requirements, and student support services prior to admission and course registration. (40.5% of the panel selected this option) |
| *15. Students are provided with hands-on training and information to aid them in securing material through electronic databases, interlibrary loans, government archives, news services, and other sources.* | • Students are provided with access to training and information they will need to secure required materials through electronic databases, interlibrary loans, government archives, new services and other sources. (21.1% of the panel selected this option) |
| *16. Throughout the duration of the course/program, students have access to technical assistance, including detailed instructions regarding the electronic media used, practice sessions prior to the beginning of the course, and convenient access to technical support staff.* | • Throughout the duration of the course/program, students have access to appropriate technical assistance and technical support staff. (51.4% of the panel selected this option) |
| *17. Questions directed to student service personnel are answered accurately and quickly, with a structured system in place to address student complaints.* | • Student support personnel are available to address student questions, problems, bug reporting, and complaints. (58.3% of the panel |

| Original IHEP Indicator | Suggested Revisions (After Round 2 Panel Determination) |
|---|---|
| | selected this option) |
| *18. Technical assistance in course development is available to faculty, who are encouraged to use it.* | • Combine #18 and #19 - Technical assistance in course development and assistance with the transition to teaching online is provided. (#19 - Faculty members are assisted in the transition from classroom teaching to online instruction and are assessed during the process.)(24.3% of the panel selected this option) |
| *19. Faculty members are assisted in the transition from classroom teaching to online instruction and are assessed during the process.* | • Combine #18 and #19 - Technical assistance in course development and assistance with the transition to teaching online is provided. (#18 Technical assistance in course development is available to faculty, who are encouraged to use it). (19.4% of the panel selected this option) |
| *20. Instructor training and assistance, including peer mentoring, continues through the progression of the online course.* | • Instructors are prepared to teach distance education courses and the institution ensures faculty receive training, assistance and support at all times during the development and delivery of courses. (37.8% of the panel selected this option)<br><br>• Combine #19 and #20 - Faculty members are trained and assisted in blended and online course development and ongoing delivery, with opportunity for peer mentoring (#19 Faculty members are assisted in |

| Original IHEP Indicator | Suggested Revisions (After Round 2 Panel Determination) |
|---|---|
| | the transition from classroom teaching to online instruction and are assessed during the process). (24.3% of the panel selected this option) |
| 21. *Faculty members are provided with written resources to deal with issues arising from student use of electronically-accessed data.* | • Faculty receive training and materials related to Fair Use, plagiarism, and other relevant legal and ethical concepts. (21.1% of the panel selected this option) |
| 22. *The program's educational effectiveness and teaching/learning process is assessed through an evaluation process that uses several methods and applies specific standards.* | • The program is assessed through an evaluation process that applies specific established standards. (28.9% of the panel selected this option)<br>• Keep the statement in its original format. (28.9% of the panel selected this option) |
| 23. *Data on enrollment, costs, and successful/innovative uses of technology are used to evaluate program effectiveness.* | • A variety of information-academic and administrative - is used to regularly and frequently evaluate program effectiveness and to guide changes toward continual improvement. (34.2% of the panel selected this option) |
| 24. *Intended learning outcomes are reviewed regularly to ensure clarity, utility, and appropriateness.* | • Intended learning outcomes at the course and program level are reviewed regularly to ensure clarity, utility, and appropriateness. (36.8% of the panel selected this option) |

# Appendix W

## IRB Approval for Delphi Round IV

University of Nebraska Lincoln

May 21, 2010

Virginia Shelton
Department of Educational Administration
4105 Wildbriar Ln Mansfield, TX 76063

Jody Isernhagen
Department of Educational Administration
132 TEAC, UNL, 68588-0360

IRB Number:
Project ID: 10379
Project Title: A QUALITY SCORECARD FOR THE ADMINISTRATION OF ONLINE EDUCATION PROGRAMS: A DELPHI STUDY

Dear Virginia:

The Institutional Review Board for the Protection of Human Subjects has completed its review of the Request for Change in Protocol submitted to the IRB.

1. It has been approved to add the Round 4 Survey questions.

We wish to remind you that the principal investigator is responsible for reporting to this Board any of the following events within 48 hours of the event:
* Any serious event (including on-site and off-site adverse events, injuries, side effects, deaths, or other problems) which in the opinion of the local investigator was unanticipated, involved risk to subjects or others, and was possibly related to the research procedures;
* Any serious accidental or unintentional change to the IRB-approved protocol that involves risk or has the potential to recur;
* Any publication in the literature, safety monitoring report, interim result or other finding that indicates an unexpected change to the risk/benefit ratio of the research;
* Any breach in confidentiality or compromise in data privacy related to the subject or others; or
* Any complaint of a subject that indicates an unanticipated risk or that cannot be resolved by the research staff.

This letter constitutes official notification of the approval of the protocol change. You are therefore authorized to implement this change accordingly.

If you have any questions, please contact the IRB office at 472-6965.

Sincerely,

Becky R. Freeman, CIP
for the IRB

# Appendix X

## Delphi Round IV Survey Instrument

Introduction

This survey round (Survey Round #4) will present the compiled data from the previous round. Please respond to the survey keeping in mind that your answers should support the development of a quality scorecard that could be generally used by administrators of online education programs.

We are much closer to having a major portion of the scorecard defined. Click here to view the survey questions provided in this round.

Click here to view an overview of what the scorecard looks like so far and what is still being evaluated. (You may want to print these out and keep it handy as you evaluate)

The last question is a comment box for you to suggest a method of scoring the scorecard.

1. Quality Indicator #3 - *A centralized system provides support for building and maintaining the distance education infrastructure.*

The panel did not reach consensus on a revision for the indicator. The following are the responses selected by the majority of the panel (majority=70% or more). Please choose the one you feel may best be used for evaluation of an online education program. We are looking for 70% agreement. Because the panel voted this original indicator as relevant, if 70% is not reached, majority response will be used.

☐ 1. A centralized technology system provides support for building and maintaining the distance education infrastructure which is guided by input from both faculty and administrators and the institution's strategic plan. (27.3% of the panel selected this option)

☐ 2. Keep the statement in its original format. (60.6% of the panel selected this option)

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

The panel did not reach consensus on a revision for the indicator. The following are the responses selected by the majority of the panel (majority=70% or more). Please choose the one you feel may best be used for evaluation of an online education program. We are looking for 70% agreement. Because the panel voted this original indicator as relevant, if 70% is not reached, majority response will be used.

☐ 1. Divide the statement into two different quality indicators 1) Guidelines regarding minimum standards are used for course development, design, and delivery of online instruction. 2) Technology is used as a tool to achieve learning outcomes in delivering course content. (67.6% of the panel selected this option)

☐ 2. Guidelines regarding institutional standards are used for course design, development, and delivery. Learning outcomes guide the selection and use of technology to deliver course content. (9.7% of the panel selected this option)

3. Quality Indicator #5 - *Instructional materials are reviewed periodically to ensure they meet program standards.*

The panel did not reach consensus on a revision for the indicator. The following are the responses selected by the majority of the panel (majority=70% or more). Please choose the one you feel may best be used for evaluation of an online education program. We are looking for 70% agreement. Because the panel voted this original indicator as relevant, if 70% is not reached, majority response will be used.

☐ 1. Instructional materials, course syllabus and learning outcomes are reviewed periodically to ensure they meet program standards. (54.5% of the panel selected this option)

☐ 2. Instructional materials are reviewed periodically to ensure they meet program standards and that course information is up to date and relevant. (21.2% of the panel selected this option)

4. Quality Indicator #7 - *Student interaction with faculty and other students is an essential characteristic and is facilitated through a variety of ways, including voice-mail and/or e-mail.*
The panel did not reach consensus on a revision for the indicator. The following are the responses selected by the majority of the panel (majority=70% or more). Please choose the one you feel may best be used for evaluation of an online education program. We are looking for 70% agreement. Because the panel voted this original indicator as relevant, if 70% is not reached, majority response will be used.

☐ 1. Student-to-Student interaction and Faculty-to-Student interaction are essential characteristics and are facilitated through a variety of ways. (42.4% of the panel selected this option)

☐ 2. Student interaction with faculty and other students is an essential characteristic and is facilitated through a variety of ways both synchronous and asynchronous. (39.4% of the panel selected this option)

5. Quality Indicator #8 - *Feedback to student assignments and questions is constructive and provided in a timely manner.*
The panel did not reach consensus on a revision for the indicator. The following are the responses selected by the majority of the panel (majority=70% or more). Please choose the one you feel may best be used for evaluation of an online education program. We are looking for 70% agreement. Because the panel voted this original indicator as relevant, if 70% is not reached, majority response will be used.

☐ 1. Feedback on student assignments and questions is constructive and provided in a timely manner. (45.5% of the panel selected this option)

☐ 2. Feedback on student assignments and questions is constructive and provided in a timely manner (as indicated in the course syllabus). (30.3% of the panel selected this option)

6. Quality Indicator #11 - *Students are provided with supplemental course information*

*that outlines course objectives, concepts, and ideas, and learning outcomes for each course are summarized in a clearly written, straightforward statement.*
The panel did not reach consensus on a revision for the indicator. The following are the responses selected by the majority of the panel(majority=70% or more). Please choose the one you feel may best be used for evaluation of an online education program. We are looking for 70% agreement. Because the panel voted this original indicator as relevant, if 70% is not reached, majority response will be used.

☐ 1. The online course site includes a syllabus outlining course objectives, learning outcomes, evaluation methods, textbook information, and other related course information, making course requirements transparent at time of registration. (60.6% of the panel selected this option)

☐ 2. Students are provided with a course syllabus that outlines course objectives, concepts, and ideas, and learning outcomes for each course are summarized in a clearly written, straightforward statement. (18.2% of the panel selected this option)

7. Quality Indicator #22 - *The program's educational effectiveness and teaching/learning process is assessed through an evaluation process that uses several methods and applies specific standards.*
The panel did not reach consensus on a revision for the indicator. The following are the responses selected by the majority of the panel(majority=70% or more). Please choose the one you feel may best be used for evaluation of an online education program. We are looking for 70% agreement. Because the panel voted this original indicator as relevant, if 70% is not reached, majority response will be used.

☐ 1. The program is assessed through an evaluation process that applies specific established standards. (65.6% of the panel selected this option)

☐ 2. Keep the statement in its original format. (25.0% of the panel selected this option)

8. The following statements were suggested as additional quality indicators by members of the panel in Round 1 in the area of *Technology Support*. Please reevaluate each statement for relevance, keeping in mind that a mean of 4.0 or above needs to be achieved to include these statements as quality indicators (Relevant=4, Definitely Relevant=5). Only those statements that increased in consensus have been presented for another vote. If a mean of 4.0 or above is not achieved, the indicator will not be included in the scorecard.

| | Definitely Not Relevant | Not Relevant | Slightly Relevant | Relevant | Definitely Relevant |
|---|---|---|---|---|---|
| Appropriate policies are developed, reviewed, and disseminated to all stakeholders. (Mean=3.91 in last round) | ☐ | ☐ | ☐ | ☐ | ☐ |
| Faculty, staff, and students are supported in the development and use of new technologies and skills. (Mean=3.75 in last round) | ☐ | ☐ | ☐ | ☐ | ☐ |

9. The following statements were suggested as additional quality indicators by members of the panel in Round 1 in the area of *Institutional Support*. Please reevaluate each statement for relevance, keeping in mind that a mean of 4.0 or above needs to be achieved to include these statements as quality indicators (Relevant=4, Definitely Relevant=5). Only those statements that increased in consensus have been presented for another vote. If a mean of 4.0 or above is not achieved, the indicator will not be included in the scorecard.

| | Definitely Not Relevant | Not Relevant | Slightly Relevant | Relevant | Definitely Relevant |
|---|---|---|---|---|---|
| The institution makes bookstore services available to students. (Mean=3.55 in last round) | ☐ | ☐ | ☐ | ☐ | ☐ |
| The institution has defined the strategic value of distance learning to its enterprise and to its relevant parts. (Mean=3.87 in last round) | ☐ | ☐ | ☐ | ☐ | ☐ |
| Students ensured all they need for degree is offered in program before enrolling. (Mean=3.52 in the last round) | ☐ | ☐ | ☐ | ☐ | ☐ |

10. The following statements were suggested as additional quality indicators by members of the panel in Round 1 in the area of *Course Development*. Please reevaluate each statement for relevance, keeping in mind that a mean of 4.0 or above needs to be achieved to include these statements as quality indicators (Relevant=4, Definitely Relevant=5). Only those statements that increased in consensus have been presented for another vote. If a mean of 4.0 or above is not achieved, the indicator will not be included in the scorecard.

| | Definitely Not Relevant | Not Relevant | Slightly Relevant | Relevant | Definitely Relevant |
|---|---|---|---|---|---|
| Current and emerging technologies are evaluated and recommended for online teaching and learning. (Mean=3.91 in last round) | ☐ | ☐ | ☐ | ☐ | ☐ |
| Instructional design is provided for creation of effective pedagogy for both synchronous and asynchronous class sessions. (Mean=3.84 in last round) | ☐ | ☐ | ☐ | ☐ | ☐ |
| Curriculum development is a core responsibility for faculty. (Mean=3.45 in last round) | ☐ | ☐ | ☐ | ☐ | ☐ |
| Development of online course materials takes into account the changing context of | ☐ | ☐ | ☐ | ☐ | ☐ |

media delivery. (Mean=3.75 in last round)

11. The following statements were suggested as additional quality indicators by members of the panel in Round 1 in the area of *Teaching and Learning*. Please reevaluate each statement for relevance, keeping in mind that a mean of 4.0 or above needs to be achieved to include these statements as quality indicators (Relevant=4, Definitely Relevant=5). Only those statements that increased in consensus have been presented for another vote. If a mean of 4.0 or above is not achieved, the indicator will not be included in the scorecard.

| | Definitely Not Relevant | Not Relevant | Slightly Relevant | Relevant | Definitely Relevant |
|---|---|---|---|---|---|
| Online courses/programs use one course management platform, creating a single delivery model, and students receive an online instructional orientation to the course management platform. (Mean=3.81 in last round) | ☐ | ☐ | ☐ | ☐ | ☐ |
| Students are provided access to library professionals and resources that help them to deal with the overwhelming amount of online resources. (Mean=3.58 in last round) | ☐ | ☐ | ☐ | ☐ | ☐ |
| Course material presented in a variety of ways. (Mean=3.52 in last round) | ☐ | ☐ | ☐ | ☐ | ☐ |
| Interactive elements such as video and flash graphics to help engage the students' understanding of key learning objectives. (Mean=3.42 in last round) | ☐ | ☐ | ☐ | ☐ | ☐ |

12. The following statements were suggested as additional quality indicators by members of the panel in Round 1 in the area of *Course Structure*. Please reevaluate each statement for relevance, keeping in mind that a mean of 4.0 or above needs to be achieved to include these statements as quality indicators (Relevant=4, Definitely Relevant=5). Only those statements that increased in consensus have been presented for another vote. If a mean of 4.0 or above is not achieved, the indicator will not be included in the scorecard.

| | Definitely Not Relevant | Not Relevant | Slightly Relevant | Relevant | Definitely Relevant |
|---|---|---|---|---|---|
| Opportunities/tools provided to encourage student-student collaboration (i.e, web conferencing, instant messaging, etc). (Mean=3.81 in last round) | ☐ | ☐ | ☐ | ☐ | ☐ |

13. The following statements were suggested as additional quality indicators by members

of the panel in Round 1 in the area of *Student Support*. Please reevaluate each statement for relevance, keeping in mind that a mean of 4.0 or above needs to be achieved to include these statements as quality indicators (Relevant=4, Definitely Relevant=5). (Only those statements that increased in consensus have been presented for another vote. If a mean of 4.0 or above is not achieved, the indicator will not be included in the scorecard.

| | Definitely Not Relevant | Not Relevant | Slightly Relevant | Relevant | Definitely Relevant |
|---|---|---|---|---|---|
| Students are provided relevant information: ISBN numbers, suppliers, etc. and delivery modes for all required; instructional materials: digital format, e-packs, print format, etc. to ensure easy access. (Mean=3.94 in last round) | ○ | ○ | ○ | ○ | ○ |
| Students should be provided a way to interact with other students in an online community. (Mean=3.94 in last round) | ○ | ◉ | ○ | ○ | ○ |
| Program demonstrates a student-centered focus rather than trying to fit service to the distance education student in on-campus student services. (Mean=3.81 in last round) | ○ | ○ | ○ | ○ | ○ |
| Efforts are made to engage students with the program and institution. (Mean=3.84 in last round) | ○ | ○ | ○ | ○ | ○ |
| Students are instructed in the appropriate ways of communicating with faculty and students. (Mean=3.87 in last round) | ○ | ○ | ○ | ○ | ○ |
| Students are instructed in the appropriate ways of enlisting help from the program | | | | | |
| Support services are designed to build communication and affiliation among the online student population. (Mean=3.71 in last round) | ○ | ◉ | ○ | ○ | ○ |
| Students agree and understand the expectations of the program and courses. (Mean=3.90 in the last round) | ○ | ◉ | ○ | ○ | ○ |
| The institution provides guidance to both students and faculty in the use of all forms of technologies used for course delivery. (Mean=3.77 in last round) | ○ | ◉ | ○ | ○ | ○ |
| Tutoring is available as a learning resource. (Mean=3.94 in the last round) | ○ | ○ | ○ | ○ | ○ |
| While technologies may not be supported centrally (like available in the cloud or openly), there needs to guidance on how | ○ | ○ | ○ | ○ | ○ |

| | | | | | |
|---|---|---|---|---|---|
| these tools will be supported and the ramifications to students. (Mean=3.35 in last round) | | | | | |
| Automated support tools are available for faculty to provide early intervention to support student success. (Mean=3.55 in last round) | ☐ | ☐ | ☐ | ☐ | ☐ |

14. The following statements were suggested as additional quality indicators by members of the panel in Round 1 in the area of *Faculty Support*. Please reevaluate each statement for relevance, keeping in mind that a mean of 4.0 or above needs to be achieved to include these statements as quality indicators (Relevant=4, Definitely Relevant=5). Only those statements that increased in consensus have been presented for another vote. If a mean of 4.0 or above is not achieved, the indicator will not be included in the scorecard.

| | Definitely Not Relevant | Not Relevant | Slightly Relevant | Relevant | Definitely Relevant |
|---|---|---|---|---|---|
| New learning skills for online teaching and learning are identified. (Mean=3.50 in last round) | ☐ | ☐ | ☐ | ☐ | ☐ |
| Review of web.2.0 tools and emerging technologies and faculty. (Mean=3.35 in last round) | ☐ | ☐ | ☐ | ☐ | ☐ |
| Faculty workshops are provided to make them aware of emerging technologies and the selection and use of these tools. (Mean=3.77 in last round) | ☐ | ☐ | ☐ | ☐ | ☐ |

15. The following statements were suggested as additional quality indicators by members of the panel in Round 1 in the area of *Evaluation and Assessment*. Please reevaluate each statement for relevance, keeping in mind that a mean of 4.0 or above needs to be achieved to include these statements as quality indicators (Relevant=4, Definitely Relevant=5). Only those statements that increased in consensus have been presented for another vote. If a mean of 4.0 or above is not achieved, the indicator will not be included in the scorecard.

| | Definitely Not Relevant | Not Relevant | Slightly Relevant | Relevant | Definitely Relevant |
|---|---|---|---|---|---|
| Online learning should be robustly evaluated using tools widely available, so that faculty and students know what students perceive about the efficacy of online learning and so the institution knows how they compare and how they can improve. (Mean=3.55 in last round) | ☐ | ☐ | ☐ | ☐ | ☐ |

| | | | | | |
|---|---|---|---|---|---|
| The relationship between online education programs and institutional mission must be included as a measure.( Mean=3.48 in last round) | ○ | ◉ | ○ | ○ | ○ |
| Student evaluations of course/instructor/program are made available. (Mean=3.86 in last round) | ○ | ○ | ○ | ○ | ○ |

16. Numerical values must also be assigned to the scorecard before the research study is complete. Remember, the goal is a scorecard which may be used by administrators to evaluate online education programs.
Click here to view the partially completed scorecard from rounds 1-3.
Please suggest a method of scoring which may be used for assessment. For example: 1 Quality indicator=1 point or Each category is worth 10 points (9 categories = 90 points). The panel will vote on the method in Round 5 and the majority choice will be used.

# Appendix Y

## Delphi Round IV: Initial Email for Survey

May 21, 2010

To: [Email]
From: kaye@dbu.edu

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Subject: Quality Scorecard for Online Education: Round 4

Dear [FirstName],

The next survey round is now available for your input. Round 3 yielded quite a bit of consensus, and we just have a few more to consider.

Here is a link to the survey:
http://www.surveymonkey.com/s.aspx

The survey will be open until June 3 at 5pm Central Time.

This link is uniquely tied to this survey and your email address. Please do not forward this message.

Thanks for your participation!

Kaye Shelton
Ph.D. Candidate, University of Nebraska-Lincoln
Dean, Online Education
Dallas Baptist University
3000 Mountain Creek Parkway
Dallas, TX 75211
214 333 5283 OFC
214 333 5373 FAX
kaye@dbu.edu

Please note: If you do not wish to receive further emails from us, please click the link below, and you will be automatically removed from our mailing list.
http://www.surveymonkey.com/optout.aspx

# Appendix Z

## Delphi Round IV: First Reminder Email

May 26, 2010

Subject: Quality Scorecard for Online Education Round 4 Reminder

Dear [FirstName],

This is just a reminder that Round 4 Survey will close on June 2nd at 5pm Central Time, so there are just a few days left for you to provide your responses. You will find this round has fewer questions to respond to and it will go pretty quickly.

Please remember that the ultimate goal of our project is to develop a scorecard or rubric for evaluating an online education program, one that we could all generally use as administrators.

The survey is located at: http://www.surveymonkey.com/s.aspx

I have placed a copy of the questions in round 4 online (http://www.kayeshelton.com/Round_4_Survey.pdf) as well as an overview of the scorecard so far, based upon your responses (http://www.kayeshelton.com/scorecard_overview_round4.pdf). You may want to download them before completing the survey. These links are also provided in the first page of the survey.

The final question is a place for you to suggest a method for scoring the scorecard if we use it as an evaluation instrument for a program.

Should you have any questions or comments regarding this process, please feel free to contact me at kaye@dbu.edu or 214-235-6685. This link is uniquely tied to this survey and your email address. Please do not forward this message.

Kaye Shelton
Ph.D. Candidate, University of Nebraska-Lincoln
Dean, Online Education
Dallas Baptist University
214 333 5283 OFC
214 333 5373 FAX
kaye@dbu.edu

Please note: If you do not wish to receive further emails from us, please click the link below, and you will be automatically removed from our mailing list.
http://www.surveymonkey.com/optout.aspx

# Appendix AA

## Delphi Round IV: Second Reminder Email

June 30, 2010

Dear Panel Member,

This is a reminder that the Round 4 survey will close on this Thursday, June 3 at 5pm Central time. If you are receiving this email, it means Survey Monkey is indicating that you have yet to complete the survey.

This round has only 17 questions and we will have just one more round after this round, which will have only 3-4 questions. I hope you can find the time to complete the survey soon so that we can finalize the scorecard.

Please email me if you need your link to the survey re-emailed to you. We are almost there!

Kaye Shelton
Ph.D. Candidate, University of Nebraska-Lincoln
Dean, Online Education
Dallas Baptist University
3000 Mountain Creek Parkway
Dallas, TX 75211
214 333 5283 OFC
214 333 5373 FAX
kaye@dbu.edu

# Appendix BB

## Delphi Round IV: Final Reminder Email

June 3, 2010
[Email]
From: kaye@dbu.edu

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Subject: A Quality Scorecard for Online Education Programs

Dear Panel Member,

This is a final reminder that Round 4 survey will end today at 5pm Central time unless you notify me that you need another day to complete it.

Click here for your link to the survey: http://www.surveymonkey.com/s.aspx

Kaye Shelton
Ph.D. Candidate, University of Nebraska-Lincoln
Dean, Online Education
Dallas Baptist University
3000 Mountain Creek Parkway
Dallas, TX 75211
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Please note: If you do not wish to receive further emails from us, please click the link below, and you will be automatically removed from our mailing list.
http://www.surveymonkey.com/optout.aspx

# Appendix CC

## Delphi Round IV Results

Question 1

Quality Indicator #3 -A centralized system provides support for building and maintaining the distance education infrastructure. The panel did not reach consensus on a revision for the indicator. The following are the responses selected by the majority of the panel(majority=70% or more). Please choose the one you feel may best be used for evaluation of an online education program. We are looking for 70% agreement. Because the panel voted this original indicator as relevant, if 70% is not reached, majority response will be used.

| Answer Options | Response Percent | Response Count |
|---|---|---|
| 1. A centralized technology system provides support for building and maintaining the distance education infrastructure which is guided by input from both faculty and administrators and the institution's strategic plan. (27.3% of the panel selected this option) | 17.2% | 5 |
| 2. Keep the statement in its original format. (60.6% of the panel selected this option) | 82.8% | 24 |

Question 2

Quality Indicator #4 - Guidelines regarding minimum standards are used for course development, design, and delivery, while learning outcomes—not the availability of existing technology—determine the technology being used to deliver course content. The panel did not reach consensus on a revision for the indicator. The following are the responses selected by the majority of the panel(majority=70% or more). Please choose the one you feel may best be used for evaluation of an online education program. We are looking for 70% agreement. Because the panel voted this original indicator as relevant, if 70% is not reached, majority response will be used.

| Answer Options | Response Percent | Response Count |
|---|---|---|
| 1. Divide the statement into two different quality indicators 1)Guidelines regarding minimum standards are used for course development, design, and delivery of online instruction. 2)Technology is used as a tool to achieve learning outcomes in delivering course content. (67.6% of the panel selected this option) | 89.7% | 26 |
| 2. Guidelines regarding institutional standards are used for course design, development, and delivery. Learning outcomes guide the selection and use of technology to deliver course content. (9.7% of the panel selected this option) | 10.3% | 3 |

Question 3

Quality Indicator #5 - Instructional materials are reviewed periodically to ensure they meet program standards. The panel did not reach consensus on a revision for the indicator. The following are the responses selected by the majority of the panel(majority=70% or more). Please choose the one you feel may best be used for evaluation of an online education program. We are looking for 70% agreement. Because the panel voted this original indicator as relevant, if 70% is not reached, majority response will be used.

| Answer Options | Response Percent | Response Count |
|---|---|---|
| 1. Instructional materials, course syllabus and learning outcomes are reviewed periodically to ensure they meet program standards. (54.5% of the panel selected this option) | 86.2% | 25 |
| 2. Instructional materials are reviewed periodically to ensure they meet program standards and that course information is up to date and relevant. (21.2% of the panel selected this option) | 13.8% | 4 |

Question 4

Quality Indicator #7 - Student interaction with faculty and other students is an essential characteristic and is facilitated through a variety of ways, including voice-mail and/or e-mail. The panel did not reach consensus on a revision for the indicator. The following are the responses selected by the majority of the panel(majority=70% or more). Please choose the one you feel may best be used for evaluation of an online education program. We are looking for 70% agreement. Because the panel voted this original indicator as relevant, if 70% is not reached, majority response will be used.

| Answer Options | Response Percent | Response Count |
|---|---|---|
| 1. Student-to-Student interaction and Faculty-to-Student interaction are essential characteristics and are facilitated through a variety of ways. (42.4% of the panel selected this option) | 89.3% | 25 |
| 2. Student interaction with faculty and other students is an essential characteristic and is facilitated through a variety of ways both synchronous and asynchronous. (39.4% of the panel selected this option) | 10.7% | 3 |

Question 5

Quality Indicator #8 - Feedback to student assignments and questions is constructive and provided in a timely manner. The panel did not reach consensus on a revision for the indicator. The following are the responses selected by the majority of the panel(majority=70% or more). Please choose the one you feel may best be used for evaluation of an online education program. We are looking for 70% agreement. Because the panel voted this original indicator as relevant, if 70% is not reached, majority response will be used.

| Answer Options | Response Percent | Response Count |
|---|---|---|
| 1. Feedback on student assignments and questions is constructive and provided in a timely manner. (45.5% of the panel selected this option) | 75.9% | 22 |
| 2. Feedback on student assignments and questions is constructive and provided in a timely manner (as indicated in the course syllabus). (30.3% of the panel selected this option) | 24.1% | 7 |

Question 6

Quality Indicator #11 - Students are provided with supplemental course information that outlines course objectives, concepts, and ideas, and learning outcomes for each course are summarized in a clearly written, straightforward statement. The panel did not reach consensus on a revision for the indicator. The following are the responses selected by the majority of the panel(majority=70% or more). Please choose the one you feel may best be used for evaluation of an online education program. We are looking for 70% agreement. Because the panel voted this original indicator as relevant, if 70% is not reached, majority response will be used.

| Answer Options | Response Percent | Response Count |
|---|---|---|
| 1. The online course site includes a syllabus outlining course objectives, learning outcomes, evaluation methods, textbook information, and other related course information, making course requirements transparent at time of registration. (60.6% of the panel selected this option) | 89.7% | 26 |
| 2. Students are provided with a course syllabus that outlines course objectives, concepts, and ideas, and learning outcomes for each course are summarized in a clearly written, straightforward statement. (18.2% of the panel selected this option) | 10.3% | 3 |

Question 7

Quality Indicator #22 - The program's educational effectiveness and teaching/learning process is assessed through an evaluation process that uses several methods and applies specific standards. The panel did not reach consensus on a revision for the indicator. The following are the responses selected by the majority of the panel(majority=70% or more). Please choose the one you feel may best be used for evaluation of an online education program. We are looking for 70% agreement. Because the panel voted this original indicator as relevant, if 70% is not reached, majority response will be used.

| Answer Options | Response Percent | Response Count |
|---|---|---|
| 1. The program is assessed through an evaluation process that applies specific established standards. (65.6% of the panel selected this option) | 96.6% | 28 |
| 2. Keep the statement in its original format. (25.0% of the panel selected this option) | 3.4% | 1 |

Question 8

The following statements were suggested as additional quality indicators by members of the panel in Round 1 in the area of Technology Support. Please reevaluate each statement for relevance, keeping in mind that a mean of 4.0 or above needs to be achieved to include these statements as quality indicators (Relevant=4, Definitely Relevant=5). Only those statements that increased in consensus have been presented for another vote. If a mean of 4.0 or above is not achieved, the indicator will not be included in the scorecard.

| Answer Options | Definitely Not Relevant | Not Relevant | Slightly Relevant | Relevant | Definitely Relevant | Rating Average | Response Count |
|---|---|---|---|---|---|---|---|
| Appropriate policies are developed, reviewed, and disseminated to all stakeholders. (Mean=3.91 in last round) | 1 | 3 | 2 | 12 | 10 | 3.96 | 28 |
| Faculty, staff, and students are supported in the development and use of new technologies and skills. (Mean=3.75 in last round) | 1 | 0 | 3 | 13 | 10 | 4.15 | 27 |

Question 9

The following statements were suggested as additional quality indicators by members of the panel in Round 1 in the area of Institutional Support. Please reevaluate each statement for relevance, keeping in mind that a mean of 4.0 or above needs to be achieved to include these statements as quality indicators (Relevant=4, Definitely Relevant=5). Only those statements that increased in consensus have been presented for another vote. If a mean of 4.0 or above is not achieved, the indicator will not be included in the scorecard.

| Answer Options | Definitely Not Relevant | Not Relevant | Slightly Relevant | Relevant | Definitely Relevant | Rating Average | Response Count |
|---|---|---|---|---|---|---|---|
| The institution makes bookstore services available to students. (Mean=3.55 in last round) | 2 | 1 | 9 | 11 | 6 | 3.62 | 29 |
| The institution has defined the strategic value of distance learning to its enterprise and to its relevant parts. (Mean=3.87 in last round) | 1 | 1 | 5 | 11 | 11 | 4.03 | 29 |
| Students ensured all they need for degree is offered in program before enrolling. (Mean=3.52 in the last round) | 0 | 1 | 6 | 17 | 5 | 3.90 | 29 |

Question 10

The following statements were suggested as additional quality indicators by members of the panel in Round 1 in the area of Course Development. Please reevaluate each statement for relevance, keeping in mind that a mean of 4.0 or above needs to be achieved to include these statements as quality indicators (Relevant=4, Definitely Relevant=5). Only those statements that increased in consensus have been presented for another vote. If a mean of 4.0 or above is not achieved, the indicator will not be included in the scorecard.

| Answer Options | Definitely Not Relevant | Not Relevant | Slightly Relevant | Relevant | Definitely Relevant | Rating Average | Response Count |
|---|---|---|---|---|---|---|---|
| Current and emerging technologies are evaluated and recommended for online teaching and learning. | 1 | 0 | 3 | 16 | 9 | 4.10 | 29 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| (Mean=3.91 in last round) | | | | | | | |
| Instructional design is provided for creation of effective pedagogy for both synchronous and asynchronous class sessions. (Mean=3.84 in last round) | 1 | 1 | 2 | 11 | 14 | 4.24 | 29 |
| Curriculum development is a core responsibility for faculty. (Mean=3.45 in last round) | 1 | 0 | 7 | 10 | 11 | 4.03 | 29 |
| Development of online course materials takes into account the changing context of media delivery. (Mean=3.75 in last round) | 1 | 0 | 8 | 10 | 9 | 3.93 | 28 |

Question 11

The following statements were suggested as additional quality indicators by members of the panel in Round 1 in the area of Teaching and Learning. Please reevaluate each statement for relevance, keeping in mind that a mean of 4.0 or above needs to be achieved to include these statements as quality indicators (Relevant=4, Definitely Relevant=5). Only those statements that increased in consensus have been presented for another vote. If a mean of 4.0 or above is not achieved, the indicator will not be included in the scorecard.

| Answer Options | Definitely Not Relevant | Not Relevant | Slightly Relevant | Relevant | Definitely Relevant | Rating Average | Response Count |
|---|---|---|---|---|---|---|---|
| Online courses/programs use one course management platform, creating a single delivery model, and students receive an online instructional orientation to the course management platform. (Mean=3.81 in | 2 | 1 | 6 | 9 | 10 | 3.86 | 28 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| last round) | | | | | | | |
| Students are provided access to library professionals and resources that help them to deal with the overwhelming amount of online resources. (Mean=3.58 in last round) | 1 | 1 | 4 | 13 | 9 | 4.00 | 28 |
| Course material presented in a variety of ways. (Mean=3.52 in last round) | 1 | 1 | 6 | 14 | 6 | 3.82 | 28 |
| Interactive elements such as video and flash graphics to help engage the students' understanding of key learning objectives. (Mean=3.42 in last round) | 2 | 1 | 11 | 10 | 4 | 3.46 | 28 |

Question 12

The following statements were suggested as additional quality indicators by members of the panel in Round 1 in the area of Course Structure. Please reevaluate each statement for relevance, keeping in mind that a mean of 4.0 or above needs to be achieved to include these statements as quality indicators (Relevant=4, Definitely Relevant=5). Only those statements that increased in consensus have been presented for another vote. If a mean of 4.0 or above is not achieved, the indicator will not be included in the scorecard.

| Answer Options | Definitely Not Relevant | Not Relevant | Slightly Relevant | Relevant | Definitely Relevant | Rating Average | Response Count |
|---|---|---|---|---|---|---|---|
| Opportunities/tools provided to encourage student-student collaboration (i.e, web conferencing, instant messaging, etc). (Mean=3.81 in last round) | 1 | 0 | 2 | 17 | 9 | 4.14 | 29 |

Question 13

The following statements were suggested as additional quality indicators by members of the panel in Round 1 in the area of Student Support. Please reevaluate each statement for relevance, keeping in mind that a mean of 4.0 or above needs to be achieved to include these statements as quality indicators (Relevant=4, Definitely Relevant=5). (Only those statements that increased in consensus have been presented for another vote. If a mean of 4.0 or above is not achieved, the indicator will not be included in the scorecard.

| Answer Options | Definitely Not Relevant | Not Relevant | Slightly Relevant | Relevant | Definitely Relevant | Rating Average | Response Count |
|---|---|---|---|---|---|---|---|
| Students are provided relevant information: ISBN numbers, suppliers, etc. and delivery modes for all required; instructional materials: digital format, e-packs, print format, etc. to ensure easy access. (Mean=3.94 in last round) | 1 | 0 | 4 | 13 | 11 | 4.14 | 29 |
| Students should be provided a way to interact with other students in an online community. (Mean=3.94 in last round) | 1 | 0 | 4 | 15 | 9 | 4.07 | 29 |
| Program demonstrates a student-centered focus rather than trying to fit service to the distance education student in on-campus student services. (Mean=3.81 in last round) | 1 | 0 | 5 | 13 | 10 | 4.07 | 29 |
| Efforts are made to engage students with the program and institution. (Mean=3.84 in last round) | 1 | 0 | 5 | 13 | 10 | 4.07 | 29 |
| Students are instructed in the appropriate ways of communicating | 1 | 0 | 4 | 11 | 13 | 4.21 | 29 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| with faculty and students. (Mean=3.87 in last round) | | | | | | | |
| Students are instructed in the appropriate ways of enlisting help from the program | 1 | 1 | 2 | 14 | 10 | 4.11 | 28 |
| Support services are designed to build communication and affiliation among the online student population. (Mean=3.71 in last round) | | | | | | | |
| Students agree and understand the expectations of the program and courses. (Mean=3.90 in the last round) | 2 | 1 | 5 | 9 | 12 | 3.97 | 29 |
| The institution provides guidance to both students and faculty in the use of all forms of technologies used for course delivery. (Mean=3.77 in last round) | 1 | 0 | 2 | 15 | 11 | 4.21 | 29 |
| Tutoring is available as a learning resource. (Mean=3.94 in the last round) | 1 | 0 | 6 | 11 | 11 | 4.07 | 29 |
| While technologies may not be supported centrally (like available in the cloud or openly), there needs to guidance on how these tools will be supported and the ramifications to students. (Mean=3.35 in last round) | 1 | 4 | 12 | 9 | 3 | 3.31 | 29 |
| Automated support tools are available for faculty to | 1 | 3 | 5 | 15 | 5 | 3.69 | 29 |

| |
|---|
| provide early intervention to support student success. (Mean=3.55 in last round) |

| Question 14 |
|---|
| The following statements were suggested as additional quality indicators by members of the panel in Round 1 in the area of Faculty Support. Please reevaluate each statement for relevance, keeping in mind that a mean of 4.0 or above needs to be achieved to include these statements as quality indicators (Relevant=4, Definitely Relevant=5). Only those statements that increased in consensus have been presented for another vote. If a mean of 4.0 or above is not achieved, the indicator will not be included in the scorecard. |

| Answer Options | Definitely Not Relevant | Not Relevant | Slightly Relevant | Relevant | Definitely Relevant | Rating Average | Response Count |
|---|---|---|---|---|---|---|---|
| New learning skills for online teaching and learning are identified. (Mean=3.50 in last round) | 1 | 1 | 12 | 9 | 6 | 3.62 | 29 |
| Review of web.2.0 tools and emerging technologies and faculty. (Mean=3.35 in last round) | 2 | 2 | 13 | 9 | 3 | 3.31 | 29 |
| Faculty workshops are provided to make them aware of emerging technologies and the selection and use of these tools. (Mean=3.77 in last round) | 1 | 1 | 3 | 15 | 9 | 4.03 | 29 |

Question 15

The following statements were suggested as additional quality indicators by members of the panel in Round 1 in the area of Evaluation and Assessment. Please reevaluate each statement for relevance, keeping in mind that a mean of 4.0 or above needs to be achieved to include these statements as quality indicators (Relevant=4, Definitely Relevant=5). Only those statements that increased in consensus have been presented for another vote. If a mean of 4.0 or above is not achieved, the indicator will not be included in the scorecard.

| Answer Options | Definitely Not Relevant | Not Relevant | Slightly Relevant | Relevant | Definitely Relevant | Rating Average | Response Count |
|---|---|---|---|---|---|---|---|
| Online learning should be robustly evaluated using tools widely available, so that faculty and students know what students perceive about the efficacy of online learning and so the institution knows how they compare and how they can improve. (Mean=3.55 in last round) | 1 | 3 | 6 | 11 | 7 | 3.71 | 28 |
| The relationship between online education programs and institutional mission must be included as a measure.( Mean=3.48 in last round) | 2 | 3 | 9 | 11 | 4 | 3.41 | 29 |
| Student evaluations of course/instructor/program are made available. (Mean=3.86 in last round) | 2 | 0 | 6 | 12 | 8 | 3.86 | 28 |

Question 16

Numerical values must also be assigned to the scorecard before the research study is complete. Remember, the goal is a scorecard which may be used by administrators to evaluate online education programs. Click here to view the partially completed scorecard from rounds 1-3. Please suggest a method of scoring which may be used for assessment. For example: 1 Quality indicator=1 point or Each category is worth 10 points (9 categories = 90 points). The panel will vote on the method in Round 5 and the majority choice will be used.

| Number | Response Text |
|---|---|
| 1 | Quality indicator method |
| 2 | I think they need to be weighted differently. |
| 3 | Each item is worth 5 pts. |
| 4 | Each category is worth 10 points |
| 5 | I'd recommend 1 point per quality indicator with a suggested minimum in each category. |
| 6 | Each Indicator has 3 possible points (0 - not observed, 1 - insufficient, 2 - moderate use, 3 - completely meets criteria), then each area must have a certain percentage of the points to consider itself worthy of meeting the goals of that area. |
| 7 | Each category is worth 10 points as a means of providing balance across the categories. |
| 8 | Each category is worth 10 points. |
| 9 | Each category is worth 10 points |
| 10 | I like having one point for each indicator as long as the person evaluating understands what the number indicates. |
| 11 | It seems to me that not all nine categories are equal in importance and that perhaps you should consider allowing some categories more points than others (not distributing them equally). Note that one of the section titles says Evacuation instead of Evaluation. |
| 12 | I want to use this space to comment on what I think is very important to create a good scorecard. I think there may be overlap in some categories -- interaction among students and faculty, for example. I'd like a chance to review the entire scorecard before it's finalized. Also, I vote "slightly relevant" for some items that were poorly worded. For example, the question about evaluations in #15. Evaluations are certainly important, but not the way that question was worded.<br><br>Re. scoring -- I think having each category worth the same number of points is better since some categories will have more items, thus be more highly weighted. |
| 13 | Questions are provided with a three point scale response. Does not meet standard (0 points). Partly meets standard (.5 point). Meets standard completely (1 point). Quality programs must achieve 85% of possible points. |
| 14 | For scorecard, ease of use would likely net more willing participants, so I suggest 3 options--below acceptable standards, meets expected standards and exceeds standards--standards could be replaced with indicators too. |
| 15 | Not sure -- I'd first like to see a completed list of our indicators, then I might want to rank order them rather than have all be worth the same number of points. |
| 16 | I would use a simple Likert scale with anchors to improve reliability. Mary H. |
| 17 | I am fine with 1 point per category (9 categories=9 points) |

# Appendix DD

## Scorecard After Delphi Round IV – Scoring Method A

## Quality Scorecard for the Administration of an Online Education Program

| Method A: 1 point for reach indicator | Points Possible | Score |
|---|---|---|
| **Institutional Support** | | |
| The institution has put in place a governance structure to enable effective and comprehensive decision making related to distance learning. (Delphi Round II Approval) | 1 | |
| Policies are in place to authenticate that students enrolled in online courses, and receiving college credit are indeed those completing the course work. (Delphi Round II Approval) | 1 | |
| Policy for copyright ownerships of course materials exists. (Delphi Round II Approval) | 1 | |
| The institution has defined the strategic value of distance learning to its enterprise and to its relevant parts. (Delphi Round IV approval) | 1 | |
| **Technology Support** | | |
| IHEP #1. A documented technology plan that includes electronic security measures (e.g., password protection, encryption, secure online or proctored exams, etc.) is in place and operational to ensure quality standards, adherence to FERPA and the integrity and validity of information. (Delphi Round III approval) | 1 | |
| IHEP #2. The technology delivery systems are highly reliable and operable with measurable standards being utilized such as system downtime tracking or task benchmarking. (Delphi Round IV approval) | 1 | |
| IHEP #3. A centralized system provides support for building and maintaining the distance education infrastructure. (Delphi Round IV approval) (original IHEP standard) | 1 | |
| The course delivery technology is considered a mission critical enterprise system and supported as such. (Delphi Round IV approval) | 1 | |
| Institution maintains system backup for data availability. (Delphi Round II Approval) | 1 | |
| Faculty, staff, and students are supported in the development and use of new technologies and skills. (Delphi Round IV approval) | 1 | |
| **Course Development and Instructional Design** | | |

| | | |
|---|---|---|
| IHEP #4a. Guidelines regarding minimum standards are used for course development, design, and delivery of online instruction. (Delphi Round IV approval) | 1 | |
| IHEP #4b. Technology is used as a tool to achieve learning outcomes in delivering course content. (Delphi Round IV approval) | 1 | |
| IHEP #5. Instructional materials, course syllabus and learning outcomes are reviewed periodically to ensure they meet program standards. (Delphi Round IV approval) | 1 | |
| IHEP #6. Courses are designed so that students develop the necessary knowledge and skills to meet learning objectives at the course and program level. These may include engagement via analysis, synthesis and evaluation. (Delphi Round III approval) | 1 | |
| Learning objectives describe outcomes that are measurable. (Delphi Round III approval) | 1 | |
| Selected assessments measure the course learning objectives and are appropriate for an online learning environment. (Delphi Round III approval) | 1 | |
| Student-centered instruction is considered during the course-development process. (Delphi Round II approval) | 1 | |
| There is consistency in course development for student retention and quality. (Delphi Round II approval) | 1 | |
| Course design promotes both faculty and student engagement. (Delphi Round II approval) | 1 | |
| Current and emerging technologies are evaluated and recommended for online teaching and learning. (Delphi Round IV approval) | 1 | |
| Instructional design is provided for creation of effective pedagogy for both synchronous and asynchronous class sessions. (Delphi Round IV approval) | 1 | |
| Curriculum development is a core responsibility for faculty. (Delphi Round IV approval) | 1 | |

**Course Structure**

| | | |
|---|---|---|
| #11. The online course site includes a syllabus outlining course objectives, learning outcomes, evaluation methods, textbook information, and other related course information, making course requirements transparent at time of registration. (Delphi Round IV approval) | 1 | |

| | | |
|---|---|---|
| #12. The institution ensures that all distance education students, regardless of where they are located, have access to library/learning resources adequate to support the courses they are taking (SACS statement). (Delphi Round III approval) | 1 | |
| #13. Expectations for student assignment completion, grade policy and faculty response are clearly provided in the course syllabus. (Delphi Round III approval) | 1 | |
| Links or explanations of technical support are available in the course. (Delphi Round III approval) | 1 | |
| Instructional materials are easily accessible and usable for the student. (Delphi Round II approval) | 1 | |
| The course adequately addresses the special needs of disabled students via alternative instructional strategies and/or referral to special institutional resources. (Delphi Round II approval) | 1 | |
| Opportunities/tools provided to encourage student-student collaboration (i.e, web conferencing, instant messaging, etc) (Delphi Round IV approval) | 1 | |

**Teaching and Learning**

| | | |
|---|---|---|
| #7. Student-to-Student interaction and Faculty-to-Student interaction are essential characteristics and are facilitated through a variety of ways. (Delphi Round IV approval) | 1 | |
| #8. Feedback on student assignments and questions is constructive and provided in a timely manner. (Delphi Round IV approval) | 1 | |
| #9. Students learn appropriate methods for effective research, including assessment of the validity of resources and the ability to master resources in an online environment. (Delphi Round III approval) | 1 | |
| Students are provided access to library professionals and resources that help them to deal with the overwhelming amount of online resources. (Delphi Round IV approval) | 1 | |

**Social And Student Engagement**

| | | |
|---|---|---|
| Students should be provided a way to interact with other students in an online community. (Delphi Round IV approval) | 1 | |

**Faculty Support**

| | | |
|---|---|---|
| #18/19 Combined. Technical assistance in course development and assistance with the transition to teaching online is provided [for faculty]. | 1 | |

| | | |
|---|---|---|
| #20. Instructors are prepared to teach distance education courses and the institution ensures faculty receive training, assistance and support at all times during the development and delivery of courses. | 1 | |
| #21. Faculty receive training and materials related to Fair Use, plagiarism, and other relevant legal and ethical concepts. | 1 | |
| Faculty are provided on-going professional development related to online teaching and learning. (Delphi Round II approval) | 1 | |
| Clear standards are established for faculty engagement and expectations around online teaching (Delphi Round II approval) | 1 | |
| Faculty workshops are provided to make them aware of emerging technologies and the selection and use of these tools. (Delphi Round IV approval) | 1 | |

**Student Support**

| | | |
|---|---|---|
| #10. (Was in Course Structure) Divide into two questions: 1) Before starting an online program, students are advised about the program to determine if they possess the self-motivation and commitment to learn at a distance. (Student Support Category) 2) Before starting an online program, students are advised about the program to determine if they have access to the minimal technology required by the course design. (Delphi Round III approval) | 1 | |
| #14. Students receive (or have access to) information about programs, including admission requirements, tuition and fees, books and supplies, technical and proctoring requirements, and student support services prior to admission and course registration. (Delphi Round III approval) | 1 | |
| #15. Students are provided with access to training and information they will need to secure required materials through electronic databases, interlibrary loans, government archives, new services and other sources. (Delphi Round III approval) | 1 | |
| #16. Throughout the duration of the course/program, students have access to appropriate technical assistance and technical support staff. (Delphi Round III approval) | 1 | |
| #17. Student support personnel are available to address student questions, problems, bug reporting, and complaints. (Delphi Round III approval) | 1 | |
| Students have access to effective academic, personal, and career counseling. (Delphi Round III approval) | 1 | |

| | | |
|---|---|---|
| Minimum technology standards are established and made available to students. (Delphi Round III approval) | 1 | |
| Student support services are provided for outside the classroom such as academic advising, financial assistance, peer support, etc. (Delphi Round II approval) | 1 | |
| Policy and process is in place to support ADA requirements. (Delphi Round II approval) | 1 | |
| Students are provided relevant information: ISBN numbers, suppliers, etc. and delivery modes for all required; instructional materials: digital format, e-packs, print format, etc. to ensure easy access. (Delphi Round IV approval) | 1 | |
| Program demonstrates a student-centered focus rather than trying to fit service to the distance education student in on-campus student services. (Delphi Round IV approval) | 1 | |
| Efforts are made to engage students with the program and institution. (Delphi Round IV approval) | 1 | |
| Students are instructed in the appropriate ways of communicating with faculty and students. (Delphi Round IV approval) | 1 | |
| The institution provides guidance to both students and faculty in the use of all forms of technologies used for course delivery. (Delphi Round IV approval) | 1 | |
| Tutoring is available as a learning resource. (Delphi Round IV approval) | 1 | |
| *Support services are designed to build communication and affiliation among the online student population. (Re-presented in Delphi Round V)* | 1 (if consensus is achieved) | |
| *Students are instructed in the appropriate ways of enlisting help from the program (Re-presented in Delphi Round V)* | 1 (if consensus is achieved) | |

**Evaluation and Assessment**

| | | |
|---|---|---|
| #22. The program is assessed through an evaluation process that applies specific established standards. (Delphi Round IV approval) | 1 | |
| #23. A variety of data (academic and administrative information) are used to regularly and frequently evaluate program effectiveness and to guide changes toward continual improvement. (Delphi Round III approval) | 1 | |
| #24. Intended learning outcomes at the course and program level are reviewed regularly to ensure clarity, utility, and appropriateness. (Delphi Round III approval) | 1 | |

| | | | |
|---|---|---|---|
| A process is in place for the assessment of faculty and student support services. (Delphi Round III approval) | 1 | | |
| Course and program retention is assessed. Results of course evaluations are used as part of faculty/instructor performance evaluations. (Delphi Round III approval) | 1 | | |
| Recruitment and retention are examined and reviewed. (Delphi Round III approval) | 1 | | |
| Program demonstrates compliance and review of accessibility standards (Section 508, etc.) (Delphi Round III approval) | 1 | | |
| Course evaluations are examined in relation to faculty performance evaluations. (Delphi Round III approval) | 1 | | |
| Faculty performance is regularly assessed. (Delphi Round III approval) | 1 | | |
| Alignment of learning outcomes from course to course exists. (Delphi Round III approval) | 1 | | |
| Course evaluations collect student feedback on quality of content and effectiveness of instruction. (Delphi Round II approval) | 1 | | |
| | Perfect Score=68 | | |

# Appendix EE

## Scorecard After Delphi Round IV – Scoring Method B

## Quality Scorecard for the Administration of an Online Education Program

| Method B: 5 points for reach indicator | Points Possible | Score | |
|---|---|---|---|
| **Institutional Support** | | | |
| The institution has put in place a governance structure to enable effective and comprehensive decision making related to distance learning. (Delphi Round II Approval) | 5 | | |
| Policies are in place to authenticate that students enrolled in online courses, and receiving college credit are indeed those completing the course work. (Delphi Round II Approval) | 5 | | |
| Policy for copyright ownerships of course materials exists. (Delphi Round II Approval) | 5 | | |
| The institution has defined the strategic value of distance learning to its enterprise and to its relevant parts. (Delphi Round IV approval) | 5 | | 20 |
| **Technology Support** | | | |
| #1. A documented technology plan that includes electronic security measures (e.g., password protection, encryption, secure online or proctored exams, etc.) is in place and operational to ensure quality standards, adherence to FERPA and the integrity and validity of information. (Delphi Round III approval) | 5 | | |
| #2. The technology delivery systems are highly reliable and operable with measurable standards being utilized such as system downtime tracking or task benchmarking. (Delphi Round III approval) | 5 | | |
| #3. A centralized system provides support for building and maintaining the distance education infrastructure. (Delphi Round IV approval) (original IHEP standard) | 5 | | |
| The course delivery technology is considered a mission critical enterprise system and supported as such. (Delphi Round III approval) | 5 | | |
| Institution maintains system backup for data availability. (Delphi Round II Approval) | 5 | | |
| Faculty, staff, and students are supported in the development and use of new technologies and skills. (Delphi Round IV approval) | 5 | | 30 |
| **Course Development and Instructional Design** | | | |

| | | | |
|---|---|---|---|
| #4a. Guidelines regarding minimum standards are used for course development, design, and delivery of online instruction. (Delphi Round IV approval) | 5 | | |
| #4b. Technology is used as a tool to achieve learning outcomes in delivering course content. (Delphi Round IV approval) | 5 | | |
| #5. Instructional materials, course syllabus and learning outcomes are reviewed periodically to ensure they meet program standards. (Delphi Round IV approval) | 5 | | |
| #6. Courses are designed so that students develop the necessary knowledge and skills to meet learning objectives at the course and program level. These may include engagement via analysis, synthesis and evaluation. (Delphi Round III approval) | 5 | | |
| Learning objectives describe outcomes that are measurable. (Delphi Round III approval) | 5 | | |
| Selected assessments measure the course learning objectives and are appropriate for an online learning environment. (Delphi Round III approval) | 5 | | |
| Student-centered instruction is considered during the course-development process. (Delphi Round II approval) | 5 | | |
| There is consistency in course development for student retention and quality. (Delphi Round II approval) | 5 | | |
| Course design promotes both faculty and student engagement. (Delphi Round II approval) | 5 | | |
| Current and emerging technologies are evaluated and recommended for online teaching and learning. (Delphi Round IV approval) | 5 | | |
| Instructional design is provided for creation of effective pedagogy for both synchronous and asynchronous class sessions. (Delphi Round IV approval) | 5 | | |
| Curriculum development is a core responsibility for faculty. (Delphi Round IV approval) | 5 | | 60 |

**Course Structure**

| | | | |
|---|---|---|---|
| #11. The online course site includes a syllabus outlining course objectives, learning outcomes, evaluation methods, textbook information, and other related course information, making course requirements transparent at time of registration. (Delphi Round IV approval) | 5 | | |

| | | | |
|---|---|---|---|
| #12. The institution ensures that all distance education students, regardless of where they are located, have access to library/learning resources adequate to support the courses they are taking (SACS statement). (Delphi Round III approval) | 5 | | |
| #13. Expectations for student assignment completion, grade policy and faculty response are clearly provided in the course syllabus. (Delphi Round III approval) | 5 | | |
| Links or explanations of technical support are available in the course. (Delphi Round III approval) | 5 | | |
| Instructional materials are easily accessible and usable for the student. (Delphi Round II approval) | 5 | | |
| The course adequately addresses the special needs of disabled students via alternative instructional strategies and/or referral to special institutional resources. (Delphi Round II approval) | 5 | | |
| Opportunities/tools provided to encourage student-student collaboration (i.e, web conferencing, instant messaging, etc) (Delphi Round IV approval) | 5 | | 35 |
| **Teaching and Learning** | | | |
| #7. Student-to-Student interaction and Faculty-to-Student interaction are essential characteristics and are facilitated through a variety of ways. (Delphi Round IV approval) | 5 | | |
| #8. Feedback on student assignments and questions is constructive and provided in a timely manner. (Delphi Round IV approval) | 5 | | |
| #9. Students learn appropriate methods for effective research, including assessment of the validity of resources and the ability to master resources in an online environment. (Delphi Round III approval) | 5 | | |
| Students are provided access to library professionals and resources that help them to deal with the overwhelming amount of online resources. (Delphi Round IV approval) | 5 | | 20 |
| **Social And Student Engagement** | | | |
| Students should be provided a way to interact with other students in an online community. (Delphi Round IV approval) | 5 | | 5 |
| **Faculty Support** | | | |

| | | | |
|---|---|---|---|
| #18/19 Combined. Technical assistance in course development and assistance with the transition to teaching online is provided [for faculty]. (Delphi Round III approval) | 5 | | |
| #20. Instructors are prepared to teach distance education courses and the institution ensures faculty receive training, assistance and support at all times during the development and delivery of courses. (Delphi Round III approval) | 5 | | |
| #21. Faculty receive training and materials related to Fair Use, plagiarism, and other relevant legal and ethical concepts. (Delphi Round III approval) | 5 | | |
| Faculty are provided on-going professional development related to online teaching and learning. (Delphi Round II approval) | 5 | | |
| Clear standards are established for faculty engagement and expectations around online teaching (Delphi Round II approval) | 5 | | |
| Faculty workshops are provided to make them aware of emerging technologies and the selection and use of these tools. (Delphi Round IV approval) | 5 | | 30 |
| **Student Support** | | | |
| #10. (Was in Course Structure) Divide into two questions: 1) Before starting an online program, students are advised about the program to determine if they possess the self-motivation and commitment to learn at a distance. (Student Support Category) 2) Before starting an online program, students are advised about the program to determine if they have access to the minimal technology required by the course design. (Delphi Round III approval) | 5 | | |
| #14. Students receive (or have access to) information about programs, including admission requirements, tuition and fees, books and supplies, technical and proctoring requirements, and student support services prior to admission and course registration. (Delphi Round III approval) | 5 | | |
| #15. Students are provided with access to training and information they will need to secure required materials through electronic databases, interlibrary loans, government archives, new services and other sources. (Delphi Round III approval) | 5 | | |
| #16. Throughout the duration of the course/program, students have access to appropriate technical assistance and technical support staff. (Delphi Round III approval) | 5 | | |
| #17. Student support personnel are available to address student questions, problems, bug reporting, and complaints. (Delphi Round III approval) | 5 | | |

| | | | |
|---|---|---|---|
| Students have access to effective academic, personal, and career counseling. (Delphi Round III approval) | 5 | | |
| Minimum technology standards are established and made available to students. (Delphi Round III approval) | 5 | | |
| Student support services are provided for outside the classroom such as academic advising, financial assistance, peer support, etc. (Delphi Round II approval) | 5 | | |
| Policy and process is in place to support ADA requirements. (Delphi Round II approval) | 5 | | |
| Students are provided relevant information: ISBN numbers, suppliers, etc. and delivery modes for all required; instructional materials: digital format, e-packs, print format, etc. to ensure easy access. (Delphi Round IV approval) | 5 | | |
| Program demonstrates a student-centered focus rather than trying to fit service to the distance education student in on-campus student services. (Delphi Round IV approval) | 5 | | |
| Efforts are made to engage students with the program and institution. (Delphi Round IV approval) | 5 | | |
| Students are instructed in the appropriate ways of communicating with faculty and students. (Delphi Round IV approval) | 5 | | |
| The institution provides guidance to both students and faculty in the use of all forms of technologies used for course delivery. (Delphi Round IV approval) | 5 | | |
| Tutoring is available as a learning resource. (Delphi Round IV approval) | 5 | | |
| *Support services are designed to build communication and affiliation among the online student population. (Re-presented in Delphi Round V)* | 5 (if consensus is achieved) | | |
| *Students are instructed in the appropriate ways of enlisting help from the program (Re-presented in Delphi Round V)* | 5 (if consensus is achieved) | | 85 |

**Evaluation and Assessment**

| | | | |
|---|---|---|---|
| #22. The program is assessed through an evaluation process that applies specific established standards. (Delphi Round IV approval) | 5 | | |
| #23. A variety of data (academic and administrative information) are used to regularly and frequently evaluate program effectiveness and to guide changes toward continual improvement. (Delphi Round III approval) | 5 | | |

| | | | | |
|---|---|---|---|---|
| #24. Intended learning outcomes at the course and program level are reviewed regularly to ensure clarity, utility, and appropriateness. (Delphi Round III approval) | 5 | | | |
| A process is in place for the assessment of faculty and student support services. (Delphi Round III approval) | 5 | | | |
| Course and program retention is assessed. Results of course evaluations are used as part of faculty/instructor performance evaluations. (Delphi Round III approval) | 5 | | | |
| Recruitment and retention are examined and reviewed. (Delphi Round III approval) | 5 | | | |
| Program demonstrates compliance and review of accessibility standards (Section 508, etc.) (Delphi Round III approval) | 5 | | | |
| Course evaluations are examined in relation to faculty performance evaluations. (Delphi Round III approval) | 5 | | | |
| Faculty performance is regularly assessed. (Delphi Round III approval) | 5 | | | |
| Alignment of learning outcomes from course to course exists. (Delphi Round III approval) | 5 | | | |
| Course evaluations collect student feedback on quality of content and effectiveness of instruction. (Delphi Round II approval) | 5 | | | |
| Perfect Score | 340 | | | 55 |

# Appendix FF

## Scorecard After Delphi Round IV – Scoring Method C

## Quality Scorecard for the Administration of an Online Education Program

Method C: 10 points per category

| Institutional Support | 10 Points Per Category | |
|---|---|---|
| The institution has put in place a governance structure to enable effective and comprehensive decision making related to distance learning. (Round 2 Approval) | | |
| Policies are in place to authenticate that students enrolled in online courses, and receiving college credit are indeed those completing the course work. (Round 2 Approval) | | |
| Policy for copyright ownerships of course materials exists. (Round 2 Approval) | | |
| The institution has defined the strategic value of distance learning to its enterprise and to its relevant parts. (Round 4 approval) | | 10 |

| Technology Support | | |
|---|---|---|
| #1. A documented technology plan that includes electronic security measures (e.g., password protection, encryption, secure online or proctored exams, etc.) is in place and operational to ensure quality standards, adherence to FERPA and the integrity and validity of information. (Round 3 approval) | | |
| #2. The technology delivery systems are highly reliable and operable with measurable standards being utilized such as system downtime tracking or task benchmarking. (Round 3 approval) | | |
| #3. A centralized system provides support for building and maintaining the distance education infrastructure. (Round 4 approval) (original IHEP standard) | | |
| The course delivery technology is considered a mission critical enterprise system and supported as such. (Round 3 approval) | | |
| Institution maintains system backup for data availability. (Round 2 Approval) | | |
| Faculty, staff, and students are supported in the development and use of new technologies and skills. (Round 4 approval) | | 10 |

| Course Development and Instructional Design | | |
|---|---|---|
| #4a. Guidelines regarding minimum standards are used for course development, design, and delivery of online instruction. (Round 4 approval) | | |

| | | |
|---|---|---|
| #4b. Technology is used as a tool to achieve learning outcomes in delivering course content. (Round 4 approval) | | |
| #5. Instructional materials, course syllabus and learning outcomes are reviewed periodically to ensure they meet program standards. (Round 4 approval) | | |
| #6. Courses are designed so that students develop the necessary knowledge and skills to meet learning objectives at the course and program level. These may include engagement via analysis, synthesis and evaluation. (Round 3 approval) | | |
| Learning objectives describe outcomes that are measurable. (Round 3 approval) | | |
| Selected assessments measure the course learning objectives and are appropriate for an online learning environment. (Round 3 approval) | | |
| Student-centered instruction is considered during the course-development process. (Round 2 approval) | | |
| There is consistency in course development for student retention and quality. (Round 2 approval) | | |
| Course design promotes both faculty and student engagement. (Round 2 approval) | | |
| Current and emerging technologies are evaluated and recommended for online teaching and learning. (Round 4 approval) | | |
| Instructional design is provided for creation of effective pedagogy for both synchronous and asynchronous class sessions. (Round 4 approval) | | |
| Curriculum development is a core responsibility for faculty. (Round 4 approval) | | 10 |

**Course Structure**

| | | |
|---|---|---|
| #11. The online course site includes a syllabus outlining course objectives, learning outcomes, evaluation methods, textbook information, and other related course information, making course requirements transparent at time of registration. (Round 4 approval) | | |
| #12. The institution ensures that all distance education students, regardless of where they are located, have access to library/learning resources adequate to support the courses they are taking (SACS statement). (Round 3 approval) | | |

| | | |
|---|---|---|
| #13. Expectations for student assignment completion, grade policy and faculty response are clearly provided in the course syllabus. (Round 3 approval) | | |
| Links or explanations of technical support are available in the course. (Round 3 approval) | | |
| Instructional materials are easily accessible and usable for the student. (Round 2 approval) | | |
| The course adequately addresses the special needs of disabled students via alternative instructional strategies and/or referral to special institutional resources. (Round 2 approval) | | |
| Opportunities/tools provided to encourage student-student collaboration (i.e, web conferencing, instant messaging, etc) (Round 4 approval) | | **10** |
| **Teaching and Learning** | | |
| #7. Student-to-Student interaction and Faculty-to-Student interaction are essential characteristics and are facilitated through a variety of ways. (Round 4 approval) | | |
| #8. Feedback on student assignments and questions is constructive and provided in a timely manner. (Round 4 approval) | | |
| #9. Students learn appropriate methods for effective research, including assessment of the validity of resources and the ability to master resources in an online environment. (Round 3 approval) | | |
| Students are provided access to library professionals and resources that help them to deal with the overwhelming amount of online resources. (Round 4 approval) | | **10** |
| **Social And Student Engagement** | | |
| Students should be provided a way to interact with other students in an online community. (Round 4 approval) | | **10** |
| **Faculty Support** | | |
| #18/19 Combined. Technical assistance in course development and assistance with the transition to teaching online is provided [for faculty]. | | |
| #20. Instructors are prepared to teach distance education courses and the institution ensures faculty receive training, assistance and support at all times during the development and delivery of courses. | | |

| | | |
|---|---|---|
| #21. Faculty receive training and materials related to Fair Use, plagiarism, and other relevant legal and ethical concepts. | | |
| Faculty are provided on-going professional development related to online teaching and learning. (Round 2 approval) | | |
| Clear standards are established for faculty engagement and expectations around online teaching (Round 2 approval) | | |
| Faculty workshops are provided to make them aware of emerging technologies and the selection and use of these tools. (Round 4 approval) | | **10** |
| **Student Support** | | |
| #10. (Was in Course Structure) Divide into two questions: 1) Before starting an online program, students are advised about the program to determine if they possess the self-motivation and commitment to learn at a distance. (Student Support Category) 2) Before starting an online program, students are advised about the program to determine if they have access to the minimal technology required by the course design. (Round 3 approval) | | |
| #14. Students receive (or have access to) information about programs, including admission requirements, tuition and fees, books and supplies, technical and proctoring requirements, and student support services prior to admission and course registration. (Round 3 approval) | | |
| #15. Students are provided with access to training and information they will need to secure required materials through electronic databases, interlibrary loans, government archives, new services and other sources. (Round 3 approval) | | |
| #16. Throughout the duration of the course/program, students have access to appropriate technical assistance and technical support staff. (Round 3 approval) | | |
| #17. Student support personnel are available to address student questions, problems, bug reporting, and complaints. (Round 3 approval) | | |
| Students have access to effective academic, personal, and career counseling. (Round 3 approval) | | |
| Minimum technology standards are established and made available to students. (Round 3 approval) | | |
| Student support services are provided for outside the classroom such as academic advising, financial assistance, peer support, etc. (Round 2 approval) | | |

| | |
|---|---|
| Policy and process is in place to support ADA requirements. (Round 2 approval) | |
| Students are provided relevant information: ISBN numbers, suppliers, etc. and delivery modes for all required; instructional materials: digital format, e-packs, print format, etc. to ensure easy access. (Round 4 approval) | |
| Program demonstrates a student-centered focus rather than trying to fit service to the distance education student in on-campus student services. (Round 4 approval) | |
| Efforts are made to engage students with the program and institution. (Round 4 approval) | |
| Students are instructed in the appropriate ways of communicating with faculty and students. (Round 4 approval) | |
| The institution provides guidance to both students and faculty in the use of all forms of technologies used for course delivery. (Round 4 approval) | |
| Tutoring is available as a learning resource. (Round 4 approval) | |
| *Support services are designed to build communication and affiliation among the online student population. (Re-presented in Round 5)* | |
| *Students are instructed in the appropriate ways of enlisting help from the program (Re-presented in Round 5)* | |

**Evaluation and Assessment**

| | |
|---|---|
| #22. The program is assessed through an evaluation process that applies specific established standards. (Round 4 approval) | |
| #23. A variety of data (academic and administrative information) are used to regularly and frequently evaluate program effectiveness and to guide changes toward continual improvement. (Round 3 approval) | |
| #24. Intended learning outcomes at the course and program level are reviewed regularly to ensure clarity, utility, and appropriateness. (Round 3 approval) | |
| A process is in place for the assessment of faculty and student support services. (Round 3 approval) | |

| | | | |
|---|---|---|---|
| Course and program retention is assessed. Results of course evaluations are used as part of faculty/instructor performance evaluations. (Round 3 approval) | | | |
| Recruitment and retention are examined and reviewed. (Round 3 approval) | | | |
| Program demonstrates compliance and review of accessibility standards (Section 508, etc.) (Round 3 approval) | | | |
| Course evaluations are examined in relation to faculty performance evaluations. (Round 3 approval) | | | |
| Faculty performance is regularly assessed. (Round 3 approval) | | | |
| Alignment of learning outcomes from course to course exists. (Round 3 approval) | | | |
| Course evaluations collect student feedback on quality of content and effectiveness of instruction. (Round 2 approval) | | | |
| **Perfect Score** | | | **10** |

# Appendix GG

## Scorecard After Delphi Round IV – Scoring Method D

## Quality Scorecard for the Administration of an Online Education Program

Method D: 1 point for each category

| Institutional Support | 1 Point Per Category | |
|---|---|---|
| The institution has put in place a governance structure to enable effective and comprehensive decision making related to distance learning. (Round 2 Approval) | | |
| Policies are in place to authenticate that students enrolled in online courses, and receiving college credit are indeed those completing the course work. (Round 2 Approval) | | |
| Policy for copyright ownerships of course materials exists. (Round 2 Approval) | | |
| The institution has defined the strategic value of distance learning to its enterprise and to its relevant parts. (Round 4 approval) | | 1 |

| Technology Support | | |
|---|---|---|
| #1. A documented technology plan that includes electronic security measures (e.g., password protection, encryption, secure online or proctored exams, etc.) is in place and operational to ensure quality standards, adherence to FERPA and the integrity and validity of information. (Round 3 approval) | | |
| #2. The technology delivery systems are highly reliable and operable with measurable standards being utilized such as system downtime tracking or task benchmarking. (Round 3 approval) | | |
| #3. A centralized system provides support for building and maintaining the distance education infrastructure. (Round 4 approval) (original IHEP standard) | | |
| The course delivery technology is considered a mission critical enterprise system and supported as such. (Round 3 approval) | | |
| Institution maintains system backup for data availability. (Round 2 Approval) | | |
| Faculty, staff, and students are supported in the development and use of new technologies and skills. (Round 4 approval) | | 1 |

**Course Development and Instructional Design**

| | | |
|---|---|---|
| #4a. Guidelines regarding minimum standards are used for course development, design, and delivery of online instruction. (Round 4 approval) | | |
| #4b. Technology is used as a tool to achieve learning outcomes in delivering course content. (Round 4 approval) | | |
| #5. Instructional materials, course syllabus and learning outcomes are reviewed periodically to ensure they meet program standards. (Round 4 approval) | | |
| #6. Courses are designed so that students develop the necessary knowledge and skills to meet learning objectives at the course and program level. These may include engagement via analysis, synthesis and evaluation. (Round 3 approval) | | |
| Learning objectives describe outcomes that are measurable. (Round 3 approval) | | |
| Selected assessments measure the course learning objectives and are appropriate for an online learning environment. (Round 3 approval) | | |
| Student-centered instruction is considered during the course-development process. (Round 2 approval) | | |
| There is consistency in course development for student retention and quality. (Round 2 approval) | | |
| Course design promotes both faculty and student engagement. (Round 2 approval) | | |
| Current and emerging technologies are evaluated and recommended for online teaching and learning. (Round 4 approval) | | |
| Instructional design is provided for creation of effective pedagogy for both synchronous and asynchronous class sessions. (Round 4 approval) | | |
| Curriculum development is a core responsibility for faculty. (Round 4 approval) | | 1 |

**Course Structure**

| | | |
|---|---|---|
| #11. The online course site includes a syllabus outlining course objectives, learning outcomes, evaluation methods, textbook information, and other related course information, making course requirements transparent at time of registration. (Round 4 approval) | | |

| | | |
|---|---|---|
| #12. The institution ensures that all distance education students, regardless of where they are located, have access to library/learning resources adequate to support the courses they are taking (SACS statement). (Round 3 approval) | | |
| #13. Expectations for student assignment completion, grade policy and faculty response are clearly provided in the course syllabus. (Round 3 approval) | | |
| Links or explanations of technical support are available in the course. (Round 3 approval) | | |
| Instructional materials are easily accessible and usable for the student. (Round 2 approval) | | |
| The course adequately addresses the special needs of disabled students via alternative instructional strategies and/or referral to special institutional resources. (Round 2 approval) | | |
| Opportunities/tools provided to encourage student-student collaboration (i.e, web conferencing, instant messaging, etc) (Round 4 approval) | | 1 |
| **Teaching and Learning** | | |
| #7. Student-to-Student interaction and Faculty-to-Student interaction are essential characteristics and are facilitated through a variety of ways. (Round 4 approval) | | |
| #8. Feedback on student assignments and questions is constructive and provided in a timely manner. (Round 4 approval) | | |
| #9. Students learn appropriate methods for effective research, including assessment of the validity of resources and the ability to master resources in an online environment. (Round 3 approval) | | |
| Students are provided access to library professionals and resources that help them to deal with the overwhelming amount of online resources. (Round 4 approval) | | 1 |
| **Social And Student Engagement** | | |
| Students should be provided a way to interact with other students in an online community. (Round 4 approval) | | 1 |
| **Faculty Support** | | |
| #18/19 Combined. Technical assistance in course development and assistance with the transition to teaching online is provided [for faculty]. (Round 3 approval) | | |

| | | |
|---|---|---|
| #20. Instructors are prepared to teach distance education courses and the institution ensures faculty receive training, assistance and support at all times during the development and delivery of courses. (Round 3 approval | | |
| #21. Faculty receive training and materials related to Fair Use, plagiarism, and other relevant legal and ethical concepts. (Round 3 approval | | |
| Faculty are provided on-going professional development related to online teaching and learning. (Round 2 approval) | | |
| Clear standards are established for faculty engagement and expectations around online teaching (Round 2 approval) | | |
| Faculty workshops are provided to make them aware of emerging technologies and the selection and use of these tools. (Round 4 approval) | | 1 |
| **Student Support** | | |
| #10. (Was in Course Structure) Divide into two questions: 1) Before starting an online program, students are advised about the program to determine if they possess the self-motivation and commitment to learn at a distance. (Student Support Category) 2) Before starting an online program, students are advised about the program to determine if they have access to the minimal technology required by the course design. (Round 3 approval) | | |
| #14. Students receive (or have access to) information about programs, including admission requirements, tuition and fees, books and supplies, technical and proctoring requirements, and student support services prior to admission and course registration. (Round 3 approval) | | |
| #15. Students are provided with access to training and information they will need to secure required materials through electronic databases, interlibrary loans, government archives, new services and other sources. (Round 3 approval) | | |
| #16. Throughout the duration of the course/program, students have access to appropriate technical assistance and technical support staff. (Round 3 approval) | | |
| #17. Student support personnel are available to address student questions, problems, bug reporting, and complaints. (Round 3 approval) | | |
| Students have access to effective academic, personal, and career counseling. (Round 3 approval) | | |

| | | |
|---|---|---|
| Minimum technology standards are established and made available to students. (Round 3 approval) | | |
| Student support services are provided for outside the classroom such as academic advising, financial assistance, peer support, etc. (Round 2 approval) | | |
| Policy and process is in place to support ADA requirements. (Round 2 approval) | | |
| Students are provided relevant information: ISBN numbers, suppliers, etc. and delivery modes for all required; instructional materials: digital format, e-packs, print format, etc. to ensure easy access. (Round 4 approval) | | |
| Program demonstrates a student-centered focus rather than trying to fit service to the distance education student in on-campus student services. (Round 4 approval) | | |
| Efforts are made to engage students with the program and institution. (Round 4 approval) | | |
| Students are instructed in the appropriate ways of communicating with faculty and students. (Round 4 approval) | | |
| The institution provides guidance to both students and faculty in the use of all forms of technologies used for course delivery. (Round 4 approval) | | |
| Tutoring is available as a learning resource. (Round 4 approval) | | |
| *Support services are designed to build communication and affiliation among the online student population. (Re-presented in Round 5)* ) | | |
| *Students are instructed in the appropriate ways of enlisting help from the program (Re-presented in Round 5)* | | 1 |
| **Evaluation and Assessment** | | |
| #22. The program is assessed through an evaluation process that applies specific established standards. (Round 4 approval) | | |
| #23. A variety of data (academic and administrative information) are used to regularly and frequently evaluate program effectiveness and to guide changes toward continual improvement. (Round 3 approval) | | |
| #24. Intended learning outcomes at the course and program level are reviewed regularly to ensure clarity, utility, and appropriateness. (Round 3 approval) | | |

| | | | | |
|---|---|---|---|---|
| A process is in place for the assessment of faculty and student support services. (Round 3 approval) | | | | |
| Course and program retention is assessed. Results of course evaluations are used as part of faculty/instructor performance evaluations. (Round 3 approval) | | | | |
| Recruitment and retention are examined and reviewed. (Round 3 approval) | | | | |
| Program demonstrates compliance and review of accessibility standards (Section 508, etc.) (Round 3 approval) | | | | |
| Course evaluations are examined in relation to faculty performance evaluations. (Round 3 approval) | | | | |
| Faculty performance is regularly assessed. (Round 3 approval) | | | | |
| Alignment of learning outcomes from course to course exists. (Round 3 approval) | | | | |
| Course evaluations collect student feedback on quality of content and effectiveness of instruction. (Round 2 approval) | | | | |
| **Perfect Score** | **9** | | | **1** |

# Appendix HH

## Scorecard After Delphi Round IV – Scoring Method E

## Quality Scorecard for the Administration of an Online Education Program

| Method E: Each indicator one point with partial credit awarded | Does not meet standard | Partially meets standard | Meets or exceeds standard | Score |
|---|---|---|---|---|
| **Institutional Support** | | | | |
| The institution has put in place a governance structure to enable effective and comprehensive decision making related to distance learning. (Round 2 Approval) | 0 | 0.5 | 1 | |
| Policies are in place to authenticate that students enrolled in online courses, and receiving college credit are indeed those completing the course work. (Round 2 Approval) | 0 | 0.5 | 1 | |
| Policy for copyright ownerships of course materials exists. (Round 2 Approval) | 0 | 0.5 | 1 | |
| The institution has defined the strategic value of distance learning to its enterprise and to its relevant parts. (Round 4 approval) | 0 | 0.5 | 1 | |
| **Technology Support** | | | | |
| #1. A documented technology plan that includes electronic security measures (e.g., password protection, encryption, secure online or proctored exams, etc.) is in place and operational to ensure quality standards, adherence to FERPA and the integrity and validity of information. (Round 3 approval) | 0 | 0.5 | 1 | |
| #2. The technology delivery systems are highly reliable and operable with measurable standards being utilized such as system downtime tracking or task benchmarking. (Round 3 approval) | 0 | 0.5 | 1 | |
| #3. A centralized system provides support for building and maintaining the distance education infrastructure. (Round 4 approval) (original IHEP standard) | 0 | 0.5 | 1 | |
| The course delivery technology is considered a mission critical enterprise system and supported as such. (Round 3 approval) | 0 | 0.5 | 1 | |
| Institution maintains system backup for data availability. (Round 2 Approval) | 0 | 0.5 | 1 | |
| Faculty, staff, and students are supported in the development and use of new technologies and skills. (Round 4 approval) | 0 | 0.5 | 1 | |

**Course Development and Instructional Design**

| | | | | |
|---|---|---|---|---|
| #4a. Guidelines regarding minimum standards are used for course development, design, and delivery of online instruction. (Round 4 approval) | 0 | 0.5 | 1 | |
| #4b. Technology is used as a tool to achieve learning outcomes in delivering course content. (Round 4 approval) | 0 | 0.5 | 1 | |
| #5. Instructional materials, course syllabus and learning outcomes are reviewed periodically to ensure they meet program standards. (Round 4 approval) | 0 | 0.5 | 1 | |
| #6. Courses are designed so that students develop the necessary knowledge and skills to meet learning objectives at the course and program level. These may include engagement via analysis, synthesis and evaluation. (Round 3 approval) | 0 | 0.5 | 1 | |
| Learning objectives describe outcomes that are measurable. (Round 3 approval) | 0 | 0.5 | 1 | |
| Selected assessments measure the course learning objectives and are appropriate for an online learning environment. (Round 3 approval) | 0 | 0.5 | 1 | |
| Student-centered instruction is considered during the course-development process. (Round 2 approval) | 0 | 0.5 | 1 | |
| There is consistency in course development for student retention and quality. (Round 2 approval) | 0 | 0.5 | 1 | |
| Course design promotes both faculty and student engagement. (Round 2 approval) | 0 | 0.5 | 1 | |
| Current and emerging technologies are evaluated and recommended for online teaching and learning. (Round 4 approval) | 0 | 0.5 | 1 | |
| Instructional design is provided for creation of effective pedagogy for both synchronous and asynchronous class sessions. (Round 4 approval) | 0 | 0.5 | 1 | |
| Curriculum development is a core responsibility for faculty. (Round 4 approval) | 0 | 0.5 | 1 | |

**Course Structure**

| | | | | |
|---|---|---|---|---|
| #11. The online course site includes a syllabus outlining course objectives, learning outcomes, evaluation methods, textbook information, and other related course information, making course | 0 | 0.5 | 1 | |

| | | | | |
|---|---|---|---|---|
| requirements transparent at time of registration. (Round 4 approval) | | | | |
| #12. The institution ensures that all distance education students, regardless of where they are located, have access to library/learning resources adequate to support the courses they are taking (SACS statement). (Round 3 approval) | 0 | 0.5 | 1 | |
| #13. Expectations for student assignment completion, grade policy and faculty response are clearly provided in the course syllabus. (Round 3 approval) | 0 | 0.5 | 1 | |
| Links or explanations of technical support are available in the course. (Round 3 approval) | 0 | 0.5 | 1 | |
| Instructional materials are easily accessible and usable for the student. (Round 2 approval) | 0 | 0.5 | 1 | |
| The course adequately addresses the special needs of disabled students via alternative instructional strategies and/or referral to special institutional resources. (Round 2 approval) | 0 | 0.5 | 1 | |
| Opportunities/tools provided to encourage student-student collaboration (i.e, web conferencing, instant messaging, etc) (Round 4 approval) | 0 | 0.5 | 1 | |

**Teaching and Learning**

| | | | | |
|---|---|---|---|---|
| #7. Student-to-Student interaction and Faculty-to-Student interaction are essential characteristics and are facilitated through a variety of ways. (Round 4 approval) | 0 | 0.5 | 1 | |
| #8. Feedback on student assignments and questions is constructive and provided in a timely manner. (Round 4 approval) | 0 | 0.5 | 1 | |
| #9. Students learn appropriate methods for effective research, including assessment of the validity of resources and the ability to master resources in an online environment. (Round 3 approval) | 0 | 0.5 | 1 | |
| Students are provided access to library professionals and resources that help them to deal with the overwhelming amount of online resources. (Round 4 approval) | 0 | 0.5 | 1 | |

**Social And Student Engagement**

| | | | | |
|---|---|---|---|---|
| Students should be provided a way to interact with other students in an online community. (Round 4 approval) | 0 | 0.5 | 1 | |

**Faculty Support**

| | | | | |
|---|---|---|---|---|
| #18/19 Combined. Technical assistance in course development and assistance with the transition to teaching online is provided [for faculty]. (Round 3 approval) | 0 | 0.5 | 1 | |
| #20. Instructors are prepared to teach distance education courses and the institution ensures faculty receive training, assistance and support at all times during the development and delivery of courses. (Round 3 approval) | 0 | 0.5 | 1 | |
| #21. Faculty receive training and materials related to Fair Use, plagiarism, and other relevant legal and ethical concepts. (Round 3 approval) | 0 | 0.5 | 1 | |
| Faculty are provided on-going professional development related to online teaching and learning. (Round 2 approval) | 0 | 0.5 | 1 | |
| Clear standards are established for faculty engagement and expectations around online teaching (Round 2 approval) | 0 | 0.5 | 1 | |
| Faculty workshops are provided to make them aware of emerging technologies and the selection and use of these tools. (Round 4 approval) | 0 | 0.5 | 1 | |

**Student Support**

| | | | | |
|---|---|---|---|---|
| #10. (Was in Course Structure) Divide into two questions: 1) Before starting an online program, students are advised about the program to determine if they possess the self-motivation and commitment to learn at a distance. (Student Support Category) 2) Before starting an online program, students are advised about the program to determine if they have access to the minimal technology required by the course design. (Round 3 approval) | 0 | 0.5 | 1 | |
| #14. Students receive (or have access to) information about programs, including admission requirements, tuition and fees, books and supplies, technical and proctoring requirements, and student support services prior to admission and course registration. (Round 3 approval) | 0 | 0.5 | 1 | |
| #15. Students are provided with access to training and information they will need to secure required materials through electronic databases, interlibrary loans, government archives, new services and other sources. (Round 3 approval) | 0 | 0.5 | 1 | |

| | | | | |
|---|---|---|---|---|
| #16. Throughout the duration of the course/program, students have access to appropriate technical assistance and technical support staff. (Round 3 approval) | 0 | 0.5 | 1 | |
| #17. Student support personnel are available to address student questions, problems, bug reporting, and complaints. (Round 3 approval) | 0 | 0.5 | 1 | |
| Students have access to effective academic, personal, and career counseling. (Round 3 approval) | 0 | 0.5 | 1 | |
| Minimum technology standards are established and made available to students. (Round 3 approval) | 0 | 0.5 | 1 | |
| Student support services are provided for outside the classroom such as academic advising, financial assistance, peer support, etc. (Round 2 approval) | 0 | 0.5 | 1 | |
| Policy and process is in place to support ADA requirements. (Round 2 approval) | 0 | 0.5 | 1 | |
| Students are provided relevant information: ISBN numbers, suppliers, etc. and delivery modes for all required; instructional materials: digital format, e-packs, print format, etc. to ensure easy access. (Round 4 approval) | 0 | 0.5 | 1 | |
| Program demonstrates a student-centered focus rather than trying to fit service to the distance education student in on-campus student services. (Round 4 approval) | 0 | 0.5 | 1 | |
| Efforts are made to engage students with the program and institution. (Round 4 approval) | 0 | 0.5 | 1 | |
| Students are instructed in the appropriate ways of communicating with faculty and students. (Round 4 approval) | 0 | 0.5 | 1 | |
| The institution provides guidance to both students and faculty in the use of all forms of technologies used for course delivery. (Round 4 approval) | 0 | 0.5 | 1 | |
| Tutoring is available as a learning resource. (Round 4 approval) | 0 | 0.5 | 1 | |
| *Support services are designed to build communication and affiliation among the online student population. (Re-presented in Round 5)* | *0* | *0.5* | *1* | |
| *Students are instructed in the appropriate ways of enlisting help from the program (Re-presented in Round 5)* | *0* | *0.5* | *1* | |

**Evaluation and Assessment**

| | | | | |
|---|---|---|---|---|
| #22. The program is assessed through an evaluation process that applies specific established standards. (Round 4 approval) | 0 | 0.5 | 1 | |
| #23. A variety of data (academic and administrative information) are used to regularly and frequently evaluate program effectiveness and to guide changes toward continual improvement. (Round 3 approval) | 0 | 0.5 | 1 | |
| #24. Intended learning outcomes at the course and program level are reviewed regularly to ensure clarity, utility, and appropriateness. (Round 3 approval) | 0 | 0.5 | 1 | |
| A process is in place for the assessment of faculty and student support services. (Round 3 approval) | 0 | 0.5 | 1 | |
| Course and program retention is assessed. Results of course evaluations are used as part of faculty/instructor performance evaluations. (Round 3 approval) | 0 | 0.5 | 1 | |
| Recruitment and retention are examined and reviewed. (Round 3 approval) | 0 | 0.5 | 1 | |
| Program demonstrates compliance and review of accessibility standards (Section 508, etc.) (Round 3 approval) | 0 | 0.5 | 1 | |
| Course evaluations are examined in relation to faculty performance evaluations. (Round 3 approval) | 0 | 0.5 | 1 | |
| Faculty performance is regularly assessed. (Round 3 approval) | 0 | 0.5 | 1 | |
| Alignment of learning outcomes from course to course exists. (Round 3 approval) | 0 | 0.5 | 1 | |
| Course evaluations collect student feedback on quality of content and effectiveness of instruction. (Round 2 approval) | 0 | 0.5 | 1 | |
| | **Perfect Score=68 >58 points = Quality Program** | | | |

# Appendix II

## Scorecard After Delphi Round IV – Scoring Method F

## Quality Scorecard for the Administration of an Online Education Program

| Method F: Up to 3 points available for each indicator | Not Observed | Insufficient | Moderate Use | Meets Criteria Completely | Score | |
|---|---|---|---|---|---|---|
| **Institutional Support** | | | | | | |
| The institution has put in place a governance structure to enable effective and comprehensive decision making related to distance learning. (Round 2 Approval) | 0 | 1 | 2 | 3 | | |
| Policies are in place to authenticate that students enrolled in online courses, and receiving college credit are indeed those completing the course work. (Round 2 Approval) | 0 | 1 | 2 | 3 | | |
| Policy for copyright ownerships of course materials exists. (Round 2 Approval) | 0 | 1 | 2 | 3 | | |
| The institution has defined the strategic value of distance learning to its enterprise and to its relevant parts. (Round 4 approval) | 0 | 1 | 2 | 3 | | 12 |
| **Technology Support** | | | | | | |
| #1. A documented technology plan that includes electronic security measures (e.g., password protection, encryption, secure online or proctored exams, etc.) is in place and operational to ensure quality standards, adherence to FERPA and the integrity and validity of information. (Round 3 approval) | 0 | 1 | 2 | 3 | | |
| #2. The technology delivery systems are highly reliable and operable with measurable standards being utilized such as system downtime tracking or task benchmarking. (Round 3 approval) | 0 | 1 | 2 | 3 | | |
| #3. A centralized system provides support for building and maintaining the distance education infrastructure. (Round 4 approval) (original IHEP standard) | 0 | 1 | 2 | 3 | | |
| The course delivery technology is considered a mission critical enterprise system and supported as such. (Round 3 approval) | 0 | 1 | 2 | 3 | | |
| Institution maintains system backup for data availability. (Round 2 Approval) | 0 | 1 | 2 | 3 | | |
| Faculty, staff, and students are supported in the development and use of new technologies and skills. (Round 4 approval) | 0 | 1 | 2 | 3 | | 18 |

| Course Development and Instructional Design | | | | | | |
|---|---|---|---|---|---|---|
| #4a. Guidelines regarding minimum standards are used for course development, design, and delivery of online instruction. (Round 4 approval) | 0 | 1 | 2 | 3 | | |
| #4b. Technology is used as a tool to achieve learning outcomes in delivering course content. (Round 4 approval) | 0 | 1 | 2 | 3 | | |
| #5. Instructional materials, course syllabus and learning outcomes are reviewed periodically to ensure they meet program standards. (Round 4 approval) | 0 | 1 | 2 | 3 | | |
| #6. Courses are designed so that students develop the necessary knowledge and skills to meet learning objectives at the course and program level. These may include engagement via analysis, synthesis and evaluation. (Round 3 approval) | 0 | 1 | 2 | 3 | | |
| Learning objectives describe outcomes that are measurable. (3 approval) | 0 | 1 | 2 | 3 | | |
| Selected assessments measure the course learning objectives and are appropriate for an online learning environment. (Round 3 approval) | 0 | 1 | 2 | 3 | | |
| Student-centered instruction is considered during the course-development process. (Round 2 approval) | 0 | 1 | 2 | 3 | | |
| There is consistency in course development for student retention and quality. (Round 2 approval) | 0 | 1 | 2 | 3 | | |
| Course design promotes both faculty and student engagement. (Round 2 approval) | 0 | 1 | 2 | 3 | | |
| Current and emerging technologies are evaluated and recommended for online teaching and learning. (Round 4 approval) | 0 | 1 | 2 | 3 | | |
| Instructional design is provided for creation of effective pedagogy for both synchronous and asynchronous class sessions. (Round 4 approval) | 0 | 1 | 2 | 3 | | |
| Curriculum development is a core responsibility for faculty. (Round 4 approval) | 0 | 1 | 2 | 3 | | 36 |

**Course Structure**

| | | | | | | |
|---|---|---|---|---|---|---|
| #11. The online course site includes a syllabus outlining course objectives, learning outcomes, evaluation methods, textbook information, and other related course information, making course requirements transparent at time of registration. (Round 4 approval) | 0 | 1 | 2 | 3 | | |
| #12. The institution ensures that all distance education students, regardless of where they are located, have access to library/learning resources adequate to support the courses they are taking (SACS statement). (Round 3 approval) | 0 | 1 | 2 | 3 | | |
| #13. Expectations for student assignment completion, grade policy and faculty response are clearly provided in the course syllabus. (Round 3 approval) | 0 | 1 | 2 | 3 | | |
| Links or explanations of technical support are available in the course. (Round 3 approval) | 0 | 1 | 2 | 3 | | |
| Instructional materials are easily accessible and usable for the student. (Round 2 approval) | 0 | 1 | 2 | 3 | | |
| The course adequately addresses the special needs of disabled students via alternative instructional strategies and/or referral to special institutional resources. (Round 2 approval) | 0 | 1 | 2 | 3 | | |
| Opportunities/tools provided to encourage student-student collaboration (i.e, web conferencing, instant messaging, etc) (Round 4 approval) | 0 | 1 | 2 | 3 | | 21 |
| **Teaching and Learning** | | | | | | |
| #7. Student-to-Student interaction and Faculty-to-Student interaction are essential characteristics and are facilitated through a variety of ways. (Round 4 approval) | 0 | 1 | 2 | 3 | | |
| #8. Feedback on student assignments and questions is constructive and provided in a timely manner. (Round 4 approval) | 0 | 1 | 2 | 3 | | |
| #9. Students learn appropriate methods for effective research, including assessment of the validity of resources and the ability to master resources in an online environment. (Round 3 approval) | 0 | 1 | 2 | 3 | | |
| Students are provided access to library professionals and resources that help them to deal with the overwhelming amount of online resources. (Round 4 approval) | 0 | 1 | 2 | 3 | | 12 |
| **Social And Student Engagement** | | | | | | |
| Students should be provided a way to interact with other students in an online community. | 0 | 1 | 2 | 3 | | 3 |

| | | | | | | |
|---|---|---|---|---|---|---|
| (Round 4 approval) | | | | | | |
| **Faculty Support** | | | | | | |
| #18/19 Combined. Technical assistance in course development and assistance with the transition to teaching online is provided [for faculty]. (Round 3 approval) | 0 | 1 | 2 | 3 | | |
| #20. Instructors are prepared to teach distance education courses and the institution ensures faculty receive training, assistance and support at all times during the development and delivery of courses. (Round 3 approval) | 0 | 1 | 2 | 3 | | |
| #21. Faculty receive training and materials related to Fair Use, plagiarism, and other relevant legal and ethical concepts. (Round 3 approval) | 0 | 1 | 2 | 3 | | |
| Faculty are provided on-going professional development related to online teaching and learning. (Round 2 approval) | 0 | 1 | 2 | 3 | | |
| Clear standards are established for faculty engagement and expectations around online teaching (Round 2 approval) | 0 | 1 | 2 | 3 | | |
| Faculty workshops are provided to make them aware of emerging technologies and the selection and use of these tools. (Round 4 approval) | 0 | 1 | 2 | 3 | | 18 |
| **Student Support** | | | | | | |
| #10. (Was in Course Structure) Divide into two questions: 1) Before starting an online program, students are advised about the program to determine if they possess the self-motivation and commitment to learn at a distance. (Student Support Category) 2) Before starting an online program, students are advised about the program to determine if they have access to the minimal technology required by the course design. (Round 3 approval) | 0 | 1 | 2 | 3 | | |
| #14. Students receive (or have access to) information about programs, including admission requirements, tuition and fees, books and supplies, technical and proctoring requirements, and student support services prior to admission and course registration. (Round 3 approval) | 0 | 1 | 2 | 3 | | |
| #15. Students are provided with access to training and information they will need to secure required materials through electronic databases, interlibrary loans, government archives, new services and other sources. (Round 3 approval) | 0 | 1 | 2 | 3 | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| #16. Throughout the duration of the course/program, students have access to appropriate technical assistance and technical support staff. (Round 3 approval) | 0 | 1 | 2 | 3 | | |
| #17. Student support personnel are available to address student questions, problems, bug reporting, and complaints. (Round 3 approval) | 0 | 1 | 2 | 3 | | |
| Students have access to effective academic, personal, and career counseling. (Round 3 approval) | 0 | 1 | 2 | 3 | | |
| Minimum technology standards are established and made available to students. (Round 3 approval) | 0 | 1 | 2 | 3 | | |
| Student support services are provided for outside the classroom such as academic advising, financial assistance, peer support, etc. (Round 2 approval) | 0 | 1 | 2 | 3 | | |
| Policy and process is in place to support ADA requirements. (Round 2 approval) | 0 | 1 | 2 | 3 | | |
| Students are provided relevant information: ISBN numbers, suppliers, etc. and delivery modes for all required; instructional materials: digital format, e-packs, print format, etc. to ensure easy access. (Round 4 approval) | 0 | 1 | 2 | 3 | | |
| Program demonstrates a student-centered focus rather than trying to fit service to the distance education student in on-campus student services. (Round 4 approval) | 0 | 1 | 2 | 3 | | |
| Efforts are made to engage students with the program and institution. (Round 4 approval) | 0 | 1 | 2 | 3 | | |
| Students are instructed in the appropriate ways of communicating with faculty and students. (Round 4 approval) | 0 | 1 | 2 | 3 | | |
| The institution provides guidance to both students and faculty in the use of all forms of technologies used for course delivery. (Round 4 approval) | 0 | 1 | 2 | 3 | | |
| Tutoring is available as a learning resource. (Round 4 approval) | 0 | 1 | 2 | 3 | | |
| *Support services are designed to build communication and affiliation among the online student population. (Re-presented in Round 5)* | 0 | 1 | 2 | 3 | | |
| *Students are instructed in the appropriate ways of enlisting help from the program (Re-presented in Round 5)* | 0 | 1 | 2 | 3 | | 51 |

**Evaluation and Assessment**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| #22. The program is assessed through an evaluation process that applies specific established standards. (Round 4 approval) | 0 | 1 | 2 | 3 | | | |
| #23. A variety of data (academic and administrative information) are used to regularly and frequently evaluate program effectiveness and to guide changes toward continual improvement. (Round 3 approval) | 0 | 1 | 2 | 3 | | | |
| #24. Intended learning outcomes at the course and program level are reviewed regularly to ensure clarity, utility, and appropriateness. (Round 3 approval) | 0 | 1 | 2 | 3 | | | |
| A process is in place for the assessment of faculty and student support services. (Round 3 approval) | 0 | 1 | 2 | 3 | | | |
| Course and program retention is assessed. Results of course evaluations are used as part of faculty/instructor performance evaluations. (Round 3 approval) | 0 | 1 | 2 | 3 | | | |
| Recruitment and retention are examined and reviewed. (Round 3 approval) | 0 | 1 | 2 | 3 | | | |
| Program demonstrates compliance and review of accessibility standards (Section 508, etc.) (Round 3 approval) | 0 | 1 | 2 | 3 | | | |
| Course evaluations are examined in relation to faculty performance evaluations. (Round 3 approval) | 0 | 1 | 2 | 3 | | | |
| Faculty performance is regularly assessed. (Round 3 approval) | 0 | 1 | 2 | 3 | | | |
| Alignment of learning outcomes from course to course exists. (Round 3 approval) | 0 | 1 | 2 | 3 | | | |
| Course evaluations collect student feedback on quality of content and effectiveness of instruction. (Round 2 approval) | 0 | 1 | 2 | 3 | | | 33 |
| | **Perfect Score=204 Each category would have a minimum for a quality program** | | | | | | |

# Appendix JJ

## Scorecard After Delphi Round IV – Scoring Method G

## Quality Scorecard for the Administration of an Online Education Program

| Method G: Up to 2 points available for each indicator | Below Acceptable Standards | Meets Expected Standards | Exceeds Expected Standards | Score | |
|---|---|---|---|---|---|
| **Institutional Support** | | | | | |
| The institution has put in place a governance structure to enable effective and comprehensive decision making related to distance learning. (Round 2 Approval) | 0 | 1 | 2 | | |
| Policies are in place to authenticate that students enrolled in online courses, and receiving college credit are indeed those completing the course work. (Round 2 Approval) | 0 | 1 | 2 | | |
| Policy for copyright ownerships of course materials exists. (Round 2 Approval) | 0 | 1 | 2 | | |
| The institution has defined the strategic value of distance learning to its enterprise and to its relevant parts. (Round 4 approval) | 0 | 1 | 2 | | 8 |
| **Technology Support** | | | | | |
| #1. A documented technology plan that includes electronic security measures (e.g., password protection, encryption, secure online or proctored exams, etc.) is in place and operational to ensure quality standards, adherence to FERPA and the integrity and validity of information. (Round 3 approval) | 0 | 1 | 2 | | |
| #2. The technology delivery systems are highly reliable and operable with measurable standards being utilized such as system downtime tracking or task benchmarking. (Round 3 approval) | 0 | 1 | 2 | | |
| #3. A centralized system provides support for building and maintaining the distance education infrastructure. (Round 4 approval) (original IHEP standard) | 0 | 1 | 2 | | |
| The course delivery technology is considered a mission critical enterprise system and supported as such. (Round 3 approval) | 0 | 1 | 2 | | |
| Institution maintains system backup for data availability. (Round 2 Approval) | 0 | 1 | 2 | | |
| Faculty, staff, and students are supported in the development and use of new technologies and skills. (Round 4 approval) | 0 | 1 | 2 | | 12 |

**Course Development and Instructional Design**

| | | | | | |
|---|---|---|---|---|---|
| #4a. Guidelines regarding minimum standards are used for course development, design, and delivery of online instruction. (Round 4 approval) | 0 | 1 | 2 | | |
| #4b. Technology is used as a tool to achieve learning outcomes in delivering course content. (Round 4 approval) | 0 | 1 | 2 | | |
| #5. Instructional materials, course syllabus and learning outcomes are reviewed periodically to ensure they meet program standards. (Round 4 approval) | 0 | 1 | 2 | | |
| #6. Courses are designed so that students develop the necessary knowledge and skills to meet learning objectives at the course and program level. These may include engagement via analysis, synthesis and evaluation. (Round 3 approval) | 0 | 1 | 2 | | |
| Learning objectives describe outcomes that are measurable. ( 3 approval) | 0 | 1 | 2 | | |
| Selected assessments measure the course learning objectives and are appropriate for an online learning environment. (Round 3 approval) | 0 | 1 | 2 | | |
| Student-centered instruction is considered during the course-development process. (Round 2 approval) | 0 | 1 | 2 | | |
| There is consistency in course development for student retention and quality. (Round 2 approval) | 0 | 1 | 2 | | |
| Course design promotes both faculty and student engagement. (Round 2 approval) | 0 | 1 | 2 | | |
| Current and emerging technologies are evaluated and recommended for online teaching and learning. (Round 4 approval) | 0 | 1 | 2 | | |
| Instructional design is provided for creation of effective pedagogy for both synchronous and asynchronous class sessions. (Round 4 approval) | 0 | 1 | 2 | | |
| Curriculum development is a core responsibility for faculty. (Round 4 approval) | 0 | 1 | 2 | | 24 |

**Course Structure**

| | | | | |
|---|---|---|---|---|
| #11. The online course site includes a syllabus outlining course objectives, learning outcomes, evaluation methods, textbook information, and other related course information, making course requirements transparent at time of registration. (Round 4 approval) | 0 | 1 | 2 | |

| | | | | | |
|---|---|---|---|---|---|
| #12. The institution ensures that all distance education students, regardless of where they are located, have access to library/learning resources adequate to support the courses they are taking (SACS statement). (Round 3 approval) | 0 | 1 | 2 | | |
| #13. Expectations for student assignment completion, grade policy and faculty response are clearly provided in the course syllabus. (Round 3 approval) | 0 | 1 | 2 | | |
| Links or explanations of technical support are available in the course. (Round 3 approval) | 0 | 1 | 2 | | |
| Instructional materials are easily accessible and usable for the student. (Round 2 approval) | 0 | 1 | 2 | | |
| The course adequately addresses the special needs of disabled students via alternative instructional strategies and/or referral to special institutional resources. (Round 2 approval) | 0 | 1 | 2 | | |
| Opportunities/tools provided to encourage student-student collaboration (i.e, web conferencing, instant messaging, etc) (Round 4 approval) | 0 | 1 | 2 | | 14 |

**Teaching and Learning**

| | | | | | |
|---|---|---|---|---|---|
| #7. Student-to-Student interaction and Faculty-to-Student interaction are essential characteristics and are facilitated through a variety of ways. (Round 4 approval) | 0 | 1 | 2 | | |
| #8. Feedback on student assignments and questions is constructive and provided in a timely manner. (Round 4 approval) | 0 | 1 | 2 | | |
| #9. Students learn appropriate methods for effective research, including assessment of the validity of resources and the ability to master resources in an online environment. (Round 3 approval) | 0 | 1 | 2 | | |
| Students are provided access to library professionals and resources that help them to deal with the overwhelming amount of online resources. (Round 4 approval) | 0 | 1 | 2 | | 8 |

**Social And Student Engagement**

| | | | | | |
|---|---|---|---|---|---|
| Students should be provided a way to interact with other students in an online community. (Round 4 approval) | 0 | 1 | 2 | | 2 |

**Faculty Support**

| | | | | | |
|---|---|---|---|---|---|
| #18/19 Combined. Technical assistance in course development and assistance with the transition to teaching online is provided [for faculty]. (Round 3 | 0 | 1 | 2 | | |

| | | | | | |
|---|---|---|---|---|---|
| approval) | | | | | |
| #20. Instructors are prepared to teach distance education courses and the institution ensures faculty receive training, assistance and support at all times during the development and delivery of courses. (Round 3 approval) | 0 | 1 | 2 | | |
| #21. Faculty receive training and materials related to Fair Use, plagiarism, and other relevant legal and ethical concepts. (Round 3 approval) | 0 | 1 | 2 | | |
| Faculty are provided on-going professional development related to online teaching and learning. (Round 2 approval) | 0 | 1 | 2 | | |
| Clear standards are established for faculty engagement and expectations around online teaching (Round 2 approval) | 0 | 1 | 2 | | |
| Faculty workshops are provided to make them aware of emerging technologies and the selection and use of these tools. (Round 4 approval) | 0 | 1 | 2 | | 12 |
| **Student Support** | | | | | |
| #10. (Was in Course Structure) Divide into two questions: 1) Before starting an online program, students are advised about the program to determine if they possess the self-motivation and commitment to learn at a distance. (Student Support Category) 2) Before starting an online program, students are advised about the program to determine if they have access to the minimal technology required by the course design. (Round 3 approval) | 0 | 1 | 2 | | |
| #14. Students receive (or have access to) information about programs, including admission requirements, tuition and fees, books and supplies, technical and proctoring requirements, and student support services prior to admission and course registration. (Round 3 approval) | 0 | 1 | 2 | | |
| #15. Students are provided with access to training and information they will need to secure required materials through electronic databases, interlibrary loans, government archives, new services and other sources. (Round 3 approval) | 0 | 1 | 2 | | |
| #16. Throughout the duration of the course/program, students have access to appropriate technical assistance and technical support staff. (Round 3 approval) | 0 | 1 | 2 | | |
| #17. Student support personnel are available to address student questions, problems, bug reporting, and complaints. (Round 3 approval) | 0 | 1 | 2 | | |

| | | | | | |
|---|---|---|---|---|---|
| Students have access to effective academic, personal, and career counseling. (Round 3 approval) | 0 | 1 | 2 | | |
| Minimum technology standards are established and made available to students. (Round 3 approval) | 0 | 1 | 2 | | |
| Student support services are provided for outside the classroom such as academic advising, financial assistance, peer support, etc. (Round 2 approval) | 0 | 1 | 2 | | |
| Policy and process is in place to support ADA requirements. (Round 2 approval) | 0 | 1 | 2 | | |
| Students are provided relevant information: ISBN numbers, suppliers, etc. and delivery modes for all required; instructional materials: digital format, e-packs, print format, etc. to ensure easy access. (Round 4 approval) | 0 | 1 | 2 | | |
| Program demonstrates a student-centered focus rather than trying to fit service to the distance education student in on-campus student services. (Round 4 approval) | 0 | 1 | 2 | | |
| Efforts are made to engage students with the program and institution. (Round 4 approval) | 0 | 1 | 2 | | |
| Students are instructed in the appropriate ways of communicating with faculty and students. (Round 4 approval) | 0 | 1 | 2 | | |
| The institution provides guidance to both students and faculty in the use of all forms of technologies used for course delivery. (Round 4 approval) | 0 | 1 | 2 | | |
| Tutoring is available as a learning resource. (Round 4 approval) | 0 | 1 | 2 | | |
| *Support services are designed to build communication and affiliation among the online student population. (Re-presented in Round 5)* | *0* | *1* | *2* | | |
| *Students are instructed in the appropriate ways of enlisting help from the program (Re-presented in Round 5)* | *0* | *1* | *2* | | 34 |

**Evaluation and Assessment**

| | | | | | |
|---|---|---|---|---|---|
| #22. The program is assessed through an evaluation process that applies specific established standards. (Round 4 approval) | 0 | 1 | 2 | | |
| #23. A variety of data (academic and administrative information) are used to regularly and frequently evaluate program effectiveness and to guide changes toward continual improvement. (Round 3 approval) | 0 | 1 | 2 | | |

| | | | | | |
|---|---|---|---|---|---|
| #24. Intended learning outcomes at the course and program level are reviewed regularly to ensure clarity, utility, and appropriateness. (Round 3 approval) | 0 | 1 | 2 | | |
| A process is in place for the assessment of faculty and student support services. (Round 3 approval) | 0 | 1 | 2 | | |
| Course and program retention is assessed. Results of course evaluations are used as part of faculty/instructor performance evaluations. (Round 3 approval) | 0 | 1 | 2 | | |
| Recruitment and retention are examined and reviewed. (Round 3 approval) | 0 | 1 | 2 | | |
| Program demonstrates compliance and review of accessibility standards (Section 508, etc.) (Round 3 approval) | 0 | 1 | 2 | | |
| Course evaluations are examined in relation to faculty performance evaluations. (Round 3 approval) | 0 | 1 | 2 | | |
| Faculty performance is regularly assessed. (Round 3 approval) | 0 | 1 | 2 | | |
| Alignment of learning outcomes from course to course exists. (Round 3 approval) | 0 | 1 | 2 | | |
| Course evaluations collect student feedback on quality of content and effectiveness of instruction. (Round 2 approval) | 0 | 1 | 2 | | 22 |
| | **Perfect Score=136** | | | | |

# Appendix KK

## Scorecard After Delphi Round IV – Scoring Method H

## Quality Scorecard for the Administration of an Online Education Program

Method H: Likert Scale

| Institutional Support | Does Not Meet Standard | | | | Meets or Exceeds Standard | Score | |
|---|---|---|---|---|---|---|---|
| The institution has put in place a governance structure to enable effective and comprehensive decision making related to distance learning. (Round 2 Approval) | 0 | 1 | 2 | 3 | 4 | | |
| Policies are in place to authenticate that students enrolled in online courses, and receiving college credit are indeed those completing the course work. (Round 2 Approval) | 0 | 1 | 2 | 3 | 4 | | |
| Policy for copyright ownerships of course materials exists. (Round 2 Approval) | 0 | 1 | 2 | 3 | 4 | | |
| The institution has defined the strategic value of distance learning to its enterprise and to its relevant parts. (Round 4 approval) | 0 | 1 | 2 | 3 | 4 | | 16 |

| Technology Support | | | | | | | |
|---|---|---|---|---|---|---|---|
| #1. A documented technology plan that includes electronic security measures (e.g., password protection, encryption, secure online or proctored exams, etc.) is in place and operational to ensure quality standards, adherence to FERPA and the integrity and validity of information. (Round 3 approval) | 0 | 1 | 2 | 3 | 4 | | |
| #2. The technology delivery systems are highly reliable and operable with measurable standards being utilized such as system downtime tracking or task benchmarking. (Round 3 approval) | 0 | 1 | 2 | 3 | 4 | | |
| #3. A centralized system provides support for building and maintaining the distance education infrastructure. (Round 4 approval) (original IHEP standard) | 0 | 1 | 2 | 3 | 4 | | |
| The course delivery technology is considered a mission critical enterprise system and supported as such. (Round 3 approval) | 0 | 1 | 2 | 3 | 4 | | |
| Institution maintains system backup for data availability. (Round 2 Approval) | 0 | 1 | 2 | 3 | 4 | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Faculty, staff, and students are supported in the development and use of new technologies and skills. (Round 4 approval) | 0 | 1 | 2 | 3 | 4 | | 24 |
| **Course Development and Instructional Design** | | | | | | | |
| #4a. Guidelines regarding minimum standards are used for course development, design, and delivery of online instruction. (Round 4 approval) | 0 | 1 | 2 | 3 | 4 | | |
| #4b. Technology is used as a tool to achieve learning outcomes in delivering course content. (Round 4 approval) | 0 | 1 | 2 | 3 | 4 | | |
| #5. Instructional materials, course syllabus and learning outcomes are reviewed periodically to ensure they meet program standards. (Round 4 approval) | 0 | 1 | 2 | 3 | 4 | | |
| #6. Courses are designed so that students develop the necessary knowledge and skills to meet learning objectives at the course and program level. These may include engagement via analysis, synthesis and evaluation. (Round 3 approval) | 0 | 1 | 2 | 3 | 4 | | |
| Learning objectives describe outcomes that are measurable. (Round 3 approval) | 0 | 1 | 2 | 3 | 4 | | |
| Selected assessments measure the course learning objectives and are appropriate for an online learning environment. (Round 3 approval) | 0 | 1 | 2 | 3 | 4 | | |
| Student-centered instruction is considered during the course-development process. (Round 2 approval) | 0 | 1 | 2 | 3 | 4 | | |
| There is consistency in course development for student retention and quality. (Round 2 approval) | 0 | 1 | 2 | 3 | 4 | | |
| Course design promotes both faculty and student engagement. (Round 2 approval) | 0 | 1 | 2 | 3 | 4 | | |
| Current and emerging technologies are evaluated and recommended for online teaching and learning. (Round 4 approval) | 0 | 1 | 2 | 3 | 4 | | |
| Instructional design is provided for creation of effective pedagogy for both synchronous and asynchronous class sessions. (Round 4 approval) | 0 | 1 | 2 | 3 | 4 | | |
| Curriculum development is a core responsibility for faculty. (Round 4 approval) | 0 | 1 | 2 | 3 | 4 | | 48 |

**Course Structure**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| #11. The online course site includes a syllabus outlining course objectives, learning outcomes, evaluation methods, textbook information, and other related course information, making course requirements transparent at time of registration. (Round 4 approval) | 0 | 1 | 2 | 3 | 4 | | |
| #12. The institution ensures that all distance education students, regardless of where they are located, have access to library/learning resources adequate to support the courses they are taking (SACS statement). (Round 3 approval) | 0 | 1 | 2 | 3 | 4 | | |
| #13. Expectations for student assignment completion, grade policy and faculty response are clearly provided in the course syllabus. (Round 3 approval) | 0 | 1 | 2 | 3 | 4 | | |
| Links or explanations of technical support are available in the course. (Round 3 approval) | 0 | 1 | 2 | 3 | 4 | | |
| Instructional materials are easily accessible and usable for the student. (Round 2 approval) | 0 | 1 | 2 | 3 | 4 | | |
| The course adequately addresses the special needs of disabled students via alternative instructional strategies and/or referral to special institutional resources. (Round 2 approval) | 0 | 1 | 2 | 3 | 4 | | |
| Opportunities/tools provided to encourage student-student collaboration (i.e, web conferencing, instant messaging, etc) (Round 4 approval) | 0 | 1 | 2 | 3 | 4 | | 42 |

**Teaching and Learning**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| #7. Student-to-Student interaction and Faculty-to-Student interaction are essential characteristics and are facilitated through a variety of ways. (Round 4 approval) | 0 | 1 | 2 | 3 | 4 | | |
| #8. Feedback on student assignments and questions is constructive and provided in a timely manner. (Round 4 approval) | 0 | 1 | 2 | 3 | 4 | | |
| #9. Students learn appropriate methods for effective research, including assessment of the validity of resources and the ability to master resources in an online environment. (Round 3 approval) | 0 | 1 | 2 | 3 | 4 | | |
| Students are provided access to library professionals and resources that help them to deal with the overwhelming amount of online resources. (Round 4 approval) | 0 | 1 | 2 | 3 | 4 | | 16 |

**Social And Student Engagement**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Students should be provided a way to interact with other students in an online community. (Round 4 approval) | 0 | 1 | 2 | 3 | 4 | | 4 |

**Faculty Support**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| #18/19 Combined. Technical assistance in course development and assistance with the transition to teaching online is provided [for faculty]. (Round 3 approval) | 0 | 1 | 2 | 3 | 4 | | |
| #20. Instructors are prepared to teach distance education courses and the institution ensures faculty receive training, assistance and support at all times during the development and delivery of courses. (Round 3 approval) | 0 | 1 | 2 | 3 | 4 | | |
| #21. Faculty receive training and materials related to Fair Use, plagiarism, and other relevant legal and ethical concepts. (Round 3 approval) | 0 | 1 | 2 | 3 | 4 | | |
| Faculty are provided on-going professional development related to online teaching and learning. (Round 2 approval) | 0 | 1 | 2 | 3 | 4 | | |
| Clear standards are established for faculty engagement and expectations around online teaching (Round 2 approval) | 0 | 1 | 2 | 3 | 4 | | |
| Faculty workshops are provided to make them aware of emerging technologies and the selection and use of these tools. (Round 4 approval) | 0 | 1 | 2 | 3 | 4 | | 24 |

**Student Support**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| #10. (Was in Course Structure) Divide into two questions: 1) Before starting an online program, students are advised about the program to determine if they possess the self-motivation and commitment to learn at a distance. (Student Support Category) 2) Before starting an online program, students are advised about the program to determine if they have access to the minimal technology required by the course design. (Round 3 approval) | 0 | 1 | 2 | 3 | 4 | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| #14. Students receive (or have access to) information about programs, including admission requirements, tuition and fees, books and supplies, technical and proctoring requirements, and student support services prior to admission and course registration. (Round 3 approval) | 0 | 1 | 2 | 3 | 4 | | |
| #15. Students are provided with access to training and information they will need to secure required materials through electronic databases, interlibrary loans, government archives, new services and other sources. (Round 3 approval) | 0 | 1 | 2 | 3 | 4 | | |
| #16. Throughout the duration of the course/program, students have access to appropriate technical assistance and technical support staff. (Round 3 approval) | 0 | 1 | 2 | 3 | 4 | | |
| #17. Student support personnel are available to address student questions, problems, bug reporting, and complaints. (Round 3 approval) | 0 | 1 | 2 | 3 | 4 | | |
| Students have access to effective academic, personal, and career counseling. (Round 3 approval) | 0 | 1 | 2 | 3 | 4 | | |
| Minimum technology standards are established and made available to students. (Round 3 approval) | 0 | 1 | 2 | 3 | 4 | | |
| Student support services are provided for outside the classroom such as academic advising, financial assistance, peer support, etc. (Round 2 approval) | 0 | 1 | 2 | 3 | 4 | | |
| Policy and process is in place to support ADA requirements. (Round 2 approval) | 0 | 1 | 2 | 3 | 4 | | |
| Students are provided relevant information: ISBN numbers, suppliers, etc. and delivery modes for all required; instructional materials: digital format, e-packs, print format, etc. to ensure easy access. (Round 4 approval) | 0 | 1 | 2 | 3 | 4 | | |
| Program demonstrates a student-centered focus rather than trying to fit service to the distance education student in on-campus student services. (Round 4 approval) | 0 | 1 | 2 | 3 | 4 | | |
| Efforts are made to engage students with the program and institution. (Round 4 approval) | 0 | 1 | 2 | 3 | 4 | | |
| Students are instructed in the appropriate ways of communicating with faculty and students. (Round 4 approval) | 0 | 1 | 2 | 3 | 4 | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| The institution provides guidance to both students and faculty in the use of all forms of technologies used for course delivery. (Round 4 approval) | 0 | 1 | 2 | 3 | 4 | | |
| Tutoring is available as a learning resource. (Round 4 approval) | 0 | 1 | 2 | 3 | 4 | | |
| *Support services are designed to build communication and affiliation among the online student population. (Re-presented in Round 5)* | 0 | 1 | 2 | 3 | 4 | | |
| *Students are instructed in the appropriate ways of enlisting help from the program (Re-presented in Round 5)* | 0 | 1 | 2 | 3 | 4 | | 68 |
| **Evaluation and Assessment** | | | | | | | |
| #22. The program is assessed through an evaluation process that applies specific established standards. (Round 4 approval) | 0 | 1 | 2 | 3 | 4 | | |
| #23. A variety of data (academic and administrative information) are used to regularly and frequently evaluate program effectiveness and to guide changes toward continual improvement. (Round 3 approval) | 0 | 1 | 2 | 3 | 4 | | |
| #24. Intended learning outcomes at the course and program level are reviewed regularly to ensure clarity, utility, and appropriateness. (Round 3 approval) | 0 | 1 | 2 | 3 | 4 | | |
| A process is in place for the assessment of faculty and student support services. (Round 3 approval) | 0 | 1 | 2 | 3 | 4 | | |
| Course and program retention is assessed. Results of course evaluations are used as part of faculty/instructor performance evaluations. (Round 3 approval) | 0 | 1 | 2 | 3 | 4 | | |
| Recruitment and retention are examined and reviewed. (Round 3 approval) | 0 | 1 | 2 | 3 | 4 | | |
| Program demonstrates compliance and review of accessibility standards (Section 508, etc.) (Round 3 approval) | 0 | 1 | 2 | 3 | 4 | | |
| Course evaluations are examined in relation to faculty performance evaluations. (Round 3 approval) | 0 | 1 | 2 | 3 | 4 | | |
| Faculty performance is regularly assessed. (Round 3 approval) | 0 | 1 | 2 | 3 | 4 | | |
| Alignment of learning outcomes from course to course exists. (Round 3 approval) | 0 | 1 | 2 | 3 | 4 | | |

| | | | | |
|---|---|---|---|---|
| Course evaluations collect student feedback on quality of content and effectiveness of instruction. (Round 2 approval) | 0 1 2 3 4<br>**Perfect Score=272 points** | | | 44 |

# Appendix LL

## IRB Approval for Delphi Round V

University of Nebraska Lincoln

June 7, 2010

Virginia Shelton
Department of Educational Administration
4105 Wildbriar Ln Mansfield, TX 76063

Jody Isernhagen
Department of Educational Administration
132 TEAC, UNL, 68588-0360

IRB Number:
Project ID: 10379
Project Title: A QUALITY SCORECARD FOR THE ADMINISTRATION OF ONLINE EDUCATION PROGRAMS: A DELPHI STUDY

Dear Virginia:

The Institutional Review Board for the Protection of Human Subjects has completed its review of the Request for Change in Protocol submitted to the IRB.

1. The request to add Round 5 of the study has been approved.

We wish to remind you that the principal investigator is responsible for reporting to this Board any of the following events within 48 hours of the event:
* Any serious event (including on-site and off-site adverse events, injuries, side effects, deaths, or other problems) which in the opinion of the local investigator was unanticipated, involved risk to subjects or others, and was possibly related to the research procedures;
* Any serious accidental or unintentional change to the IRB-approved protocol that involves risk or has the potential to recur;
* Any publication in the literature, safety monitoring report, interim result or other finding that indicates an unexpected change to the risk/benefit ratio of the research;
* Any breach in confidentiality or compromise in data privacy related to the subject or others; or
* Any complaint of a subject that indicates an unanticipated risk or that cannot be resolved by the research staff.

This letter constitutes official notification of the approval of the protocol change. You are therefore authorized to implement this change accordingly.

If you have any questions, please contact the IRB office at 472-6965.

Sincerely,

Becky R. Freeman, CIP
for the IRB

# Appendix MM

## Delphi Round V Survey Instrument

This survey round (Survey Round #5) will present the compiled data from the previous round. This round only has 3 items for you to evaluate. Please respond to the survey keeping in mind that your answers should support the development of a quality scorecard that could be generally used by administrators of online education programs.
We are very close to the end of the research study. If consensus is gained on the scoring method, this will end the study.

1. In the recent surveys, two of the previously suggested quality indicators were inadvertently combined and should be been evaluated separately. Together, they received consensus with a M=4.18.

Each indicator is presented below separately. Please rate each of them as standalone indicators. Remember, to keep them as part of the scorecard, they need to achieve 70% consensus and a mean of 4.0 or above.

| | Definitely Not Relevant | Not Relevant | Slightly Relevant | Relevant | Definitely Relevant |
|---|---|---|---|---|---|
| Students are instructed in the appropriate ways of enlisting help from the program. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Support services are designed to build communication and affiliation among the online student population. | ☐ | ☐ | ☐ | ☐ | ☐ |

*2. The following possible methods for scoring the quality scorecard were suggested. Please choose the one you feel would be the best solution for a scorecard that may be used by administrators like yourself. We need 70% consensus on the method which means you may have to re-vote on this in a final round if consensus is not reached in this round.*

Several commented that the categories needed to be weighted differently. This would happen if each indicator has the same point value because the categories have a different number of indicators.

- ☐ A. One point per indicator Click here to view an example. This option was suggested 4 times
- ☐ B. Five points per indicator Click here to view an example.
- ☐ C. Each category equals 10 points Click here to view an example. This option was suggested 5 times
- ☐ D. Each category equals 1 point for a total scorecard value of 9 points Click here to view an example.
- ☐ E. Each indicator equals one point but has 3 possible options: Does not meet standard (0 points). Partly meets standard (.5 point). Meets or exceeds standard completely (1 point). Quality programs must achieve 85% of possible points. Click here to view an example.
- ☐ F. Each Indicator has 3 possible points (0 - not observed, 1 - insufficient, 2 - moderate use, 3 - completely meets criteria), then each area must have a certain percentage of the points to consider itself worthy of meeting the goals of that area. Click here to view an example.
- ☐ G. Each Indicator has 3 options: Below Acceptable Standards (0 points), Meets Expected Standards (1 point) and Exceeds Standards (2 points) Click here to view an example.
- ☐ H. A simple Likert scale with anchors to improve reliability (a numeric value for scoring was not included but a scale of 0-4 is shown in the example) Click here to view an example.

3. This could possibly be the final survey for the research study if consensus is reached on the scoring method. If not, only one more round should be needed. Everyone that participated on the panel will receive a copy of this version of the final scorecard with the chosen scoring method as well as one that may be finalized in the near future. For completing all of the survey rounds, each of you will be receiving a $25 gift certificate (if you can accept honorariums) to Amazon from me to say thank you - I am so grateful for your expertise and participation.

   However, there was a suggestion made that the final scorecard should be reviewed and some of the indicators needed to be reworded. Please respond below if you would like to remain on the panel for a final review of the scorecard and wording. It would probably mean a couple of more surveys to answer.

   - ☐ Yes, I would like to continue on the panel for additional survey rounds to further examine the scorecard.
   - ☐ No, I would like to end my participation in this research study.

   Thank you for your invaluable participation. I will notify you immediately if another survey round will be necessary to obtain consensus on the scoring method.

# Appendix NN

## Delphi Round V: Initial Email for Survey

June 7, 2010

To: [Email]
From: kaye@dbu.edu

---

Subject: Quality Scorecard for Online Education Programs (Round 5)

Dear [FirstName],

The next survey round is now available for your participation. This round only has 3 questions for you to answer. It could potentially be the last round if we reach consensus on the scoring method for the scorecard (70% will need to agree on one of the suggested methods). Otherwise, we may need one more round for final consensus.

This round will be open until Friday, June 18th at 5pm Central Time, however, I am hoping we can finish in one week since the survey is so short.

Your survey link is here:
http://www.surveymonkey.com/s.aspx

Please let me know if you have any questions. Your participation and feedback is vital to this project, so again, thank you.

Kaye Shelton
Dean, Online Education
Dallas Baptist University
UNL Doctoral Candidate
214 235 6635
kaye@dbu.edu

Please note: If you do not wish to receive further emails from us, please click the link below, and you will be automatically removed from our mailing list.
http://www.surveymonkey.com/optout.aspx

# Appendix OO

## Delphi Round V: First Reminder Email

June 11, 2010

To: [Email]
From: kaye@dbu.edu

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Subject: Reminder, Round 5 A Quality Scorecard for Online Education

Dear [FirstName],

This is a reminder that the next survey round is now available for your participation. This round only has 3 questions for you to answer. It could potentially be the last round if we reach consensus on the scoring method for the scorecard (70% will need to agree on one of the suggested methods). Otherwise, we may need one more round for final consensus.

This round will be open until Friday, June 18th at 5pm Central Time.

Click here: http://www.surveymonkey.com/s.aspx for your link to the survey.

Please let me know if you have any questions. Your participation and feedback is vital to this project, so again, thank you.

Kaye Shelton
Dean, Online Education
Dallas Baptist University
UNL Doctoral Candidate
214 235 6635
kaye@dbu.edu

Please note: If you do not wish to receive further emails from us, please click the link below, and you will be automatically removed from our mailing list.
http://www.surveymonkey.com/optout.aspx

# Appendix PP

## Delphi Round V: Final Reminder Email

June 14, 2010

To: [Email]
From: kaye@dbu.edu

---

Subject: Round 5 Reminder for Quality Scorecard Research Study

Dear Expert Panel Member,

I just wanted to remind you that our latest survey is open for your participation until Friday this week but I am hoping you have the time to respond today or tomorrow if at all possible. There are only 7 of you who have not responded. There are only three questions on the survey for you to answer so it will not take much time at all I think.

Here is a link to the survey:
http://www.surveymonkey.com/s.aspx

This link is uniquely tied to this survey and your email address. Please do not forward this message. Let me know if you have questions.

We will probably need one more round for final consensus on the scoring method so I want to quickly get this back out to you for the final vote.

Thank you! I think you will be pleased with the results of the scorecard.

Kaye Shelton
214 235 6635
Dean, Online Education
Dallas Baptist University
UNL PhD Candidate

Please note: If you do not wish to receive further emails from us, please click the link below, and you will be automatically removed from our mailing list.
http://www.surveymonkey.com/optout.aspx

# Appendix QQ

## Quality Scorecard After Delphi Round V

## Quality Scorecard for the Administration of an Online Education Program

| | Consensus Level | Score |
|---|---|---|
| **Institutional Support** | | |
| The institution has put in place a governance structure to enable effective and comprehensive decision making related to distance learning. (Delphi Round II Approval) | M=4.11 | |
| Policies are in place to authenticate that students enrolled in online courses, and receiving college credit are indeed those completing the course work. (Delphi Round II Approval) | M=4.11 | |
| Policy for copyright ownerships of course materials exists. (Delphi Round II Approval) | M=4.16 | |
| The institution has defined the strategic value of distance learning to its enterprise and to its relevant parts. (Delphi Round IV approval) | M=4.03 | |
| **Technology Support** | | |
| #1. A documented technology plan that includes electronic security measures (e.g., password protection, encryption, secure online or proctored exams, etc.) is in place and operational to ensure quality standards, adherence to FERPA and the integrity and validity of information. (Delphi Round III approval) | 77.4% | |
| #2. The technology delivery systems are highly reliable and operable with measurable standards being utilized such as system downtime tracking or task benchmarking. (Delphi Round III approval) | 78.8% | |
| #3. A centralized system provides support for building and maintaining the distance education infrastructure. (Delphi Round IV approval) (original IHEP standard without changes) | 82.8% | |
| The course delivery technology is considered a mission critical enterprise system and supported as such. (Delphi Round III approval) | M=4.35 | |
| Institution maintains system backup for data availability. (Delphi Round II Approval) | M=4.03 | |
| Faculty, staff, and students are supported in the development and use of new technologies and skills. (Delphi Round IV approval) | M=4.15 | |
| **Course Development and Instructional Design** | | |

| | | |
|---|---|---|
| #4a. Guidelines regarding minimum standards are used for course development, design, and delivery of online instruction. (Delphi Round IV approval) | 89.7% | |
| #4b. Technology is used as a tool to achieve learning outcomes in delivering course content. (Delphi Round IV approval) | 89.7% | |
| #5. Instructional materials, course syllabus and learning outcomes are reviewed periodically to ensure they meet program standards. (Delphi Round IV approval) | 86.2% | |
| #6. Courses are designed so that students develop the necessary knowledge and skills to meet learning objectives at the course and program level. These may include engagement via analysis, synthesis and evaluation. (Delphi Round III approval) | 70.0% | |
| Learning objectives describe outcomes that are measurable. (Delphi Round III approval) | M=4.32 | |
| Selected assessments measure the course learning objectives and are appropriate for an online learning environment. (Delphi Round III approval) | M=4.32 | |
| Student-centered instruction is considered during the course-development process. (Delphi Round II approval) | M=4.03 | |
| There is consistency in course development for student retention and quality. (Delphi Round II approval) | M=4.11 | |
| Course design promotes both faculty and student engagement. (Delphi Round II approval) | M=4.16 | |
| Current and emerging technologies are evaluated and recommended for online teaching and learning. (Delphi Round IV approval) | M=4.10 | |
| Instructional design is provided for creation of effective pedagogy for both synchronous and asynchronous class sessions. (Delphi Round IV approval) | M=4.24 | |
| Curriculum development is a core responsibility for faculty. (Delphi Round IV approval) | M=4.03 | |

**Course Structure**

| | | |
|---|---|---|
| #11. The online course site includes a syllabus outlining course objectives, learning outcomes, evaluation methods, textbook information, and other related course information, making course requirements transparent at time of registration. (Delphi Round IV approval) | 89.7% | |

| | | |
|---|---|---|
| #12. The institution ensures that all distance education students, regardless of where they are located, have access to library/learning resources adequate to support the courses they are taking (SACS statement). (Delphi Round III approval) | 87.9% | |
| #13. Expectations for student assignment completion, grade policy and faculty response are clearly provided in the course syllabus. (Delphi Round III approval) | 84.8% | |
| Links or explanations of technical support are available in the course. (Delphi Round III approval) | M=4.29 | |
| Instructional materials are easily accessible and usable for the student. (Delphi Round II approval) | M=4.26 | |
| The course adequately addresses the special needs of disabled students via alternative instructional strategies and/or referral to special institutional resources. (Delphi Round II approval) | M=4.29 | |
| Opportunities/tools provided to encourage student-student collaboration (i.e, web conferencing, instant messaging, etc) (Delphi Round IV approval) | M=4.14 | |

**Teaching and Learning**

| | | |
|---|---|---|
| #7. Student-to-Student interaction and Faculty-to-Student interaction are essential characteristics and are facilitated through a variety of ways. (Delphi Round IV approval) | 89.3% | |
| #8. Feedback on student assignments and questions is constructive and provided in a timely manner. (Delphi Round IV approval) | 75.9% | |
| #9. Students learn appropriate methods for effective research, including assessment of the validity of resources and the ability to master resources in an online environment. (Delphi Round III approval) | 75.8% | |
| Students are provided access to library professionals and resources that help them to deal with the overwhelming amount of online resources. (Delphi Round IV approval) | M=4.0 | |

**Social And Student Engagement**

| | | |
|---|---|---|
| Students should be provided a way to interact with other students in an online community. (Delphi Round IV approval) | M=4.07 | |

**Faculty Support**

| | | |
|---|---|---|
| #18/19 Combined. Technical assistance in course development and assistance with the transition to teaching online is provided [for faculty]. (Delphi Round III approval) | 70.0% | |
| #20. Instructors are prepared to teach distance education courses and the institution ensures faculty receive training, assistance and support at all times during the development and delivery of courses. (Delphi Round III approval) | 71.9% | |
| #21. Faculty receive training and materials related to Fair Use, plagiarism, and other relevant legal and ethical concepts. (Delphi Round III approval) | 77.4% | |
| Faculty are provided on-going professional development related to online teaching and learning. (Delphi Round II approval) | M=4.16 | |
| Clear standards are established for faculty engagement and expectations around online teaching (Delphi Round II approval) | M=4.05 | |
| Faculty workshops are provided to make them aware of emerging technologies and the selection and use of these tools. (Delphi Round IV approval) | M=4.03 | |
| **Student Support** | | |
| #10. (Was in Course Structure) Divide into two questions: 1) Before starting an online program, students are advised about the program to determine if they possess the self-motivation and commitment to learn at a distance. (Student Support Category) 2) Before starting an online program, students are advised about the program to determine if they have access to the minimal technology required by the course design. (Delphi Round III approval) | 72.7% | |
| #14. Students receive (or have access to) information about programs, including admission requirements, tuition and fees, books and supplies, technical and proctoring requirements, and student support services prior to admission and course registration. (Delphi Round III approval) | 93.9% | |
| #15. Students are provided with access to training and information they will need to secure required materials through electronic databases, interlibrary loans, government archives, new services and other sources. (Delphi Round III approval) | 75.0% | |
| #16. Throughout the duration of the course/program, students have access to appropriate technical assistance and technical support staff. (Delphi Round III approval) | 96.9% | |

| | | |
|---|---|---|
| #17. Student support personnel are available to address student questions, problems, bug reporting, and complaints. (Delphi Round III approval) | 75.0% | |
| Students have access to effective academic, personal, and career counseling. (Delphi Round III approval) | M=4.19 | |
| Minimum technology standards are established and made available to students. (Delphi Round III approval) | M=4.13 | |
| Student support services are provided for outside the classroom such as academic advising, financial assistance, peer support, etc. (Delphi Round II approval) | M=4.05 | |
| Policy and process is in place to support ADA requirements. (Delphi Round II approval) | M=4.16 | |
| Students are provided relevant information: ISBN numbers, suppliers, etc. and delivery modes for all required; instructional materials: digital format, e-packs, print format, etc. to ensure easy access. (Delphi Round IV approval) | M=4.14 | |
| Program demonstrates a student-centered focus rather than trying to fit service to the distance education student in on-campus student services. (Delphi Round IV approval) | M=4.07 | |
| Efforts are made to engage students with the program and institution. (Delphi Round IV approval) | M=4.07 | |
| Students are instructed in the appropriate ways of communicating with faculty and students. (Delphi Round IV approval) | M=4.21 | |
| The institution provides guidance to both students and faculty in the use of all forms of technologies used for course delivery. (Delphi Round IV approval) | M=4.21 | |
| Tutoring is available as a learning resource. (Delphi Round IV approval) | M=4.07 | |
| Students are instructed in the appropriate ways of enlisting help from the program (Delphi Round V Approval) | M=4.33 | |

**Evaluation and Assessment**

| | | |
|---|---|---|
| #22. The program is assessed through an evaluation process that applies specific established standards. (Delphi Round IV approval) | 96.6% | |
| #23. A variety of data (academic and administrative information) are used to regularly and frequently evaluate program effectiveness and to guide changes toward continual improvement. (Delphi Round III approval) | 87.1% | |

| | | | |
|---|---|---|---|
| #24. Intended learning outcomes at the course and program level are reviewed regularly to ensure clarity, utility, and appropriateness. (Delphi Round III approval) | 71.0% | | |
| A process is in place for the assessment of faculty and student support services. (Delphi Round III approval) | M=4.25 | | |
| Course and program retention is assessed. Results of course evaluations are used as part of faculty/instructor performance evaluations. (Delphi Round III approval) | M=4.10 | | |
| Recruitment and retention are examined and reviewed. (Delphi Round III approval) | M=4.06 | | |
| Program demonstrates compliance and review of accessibility standards (Section 508, etc.) (Delphi Round III approval) | M=4.29 | | |
| Course evaluations are examined in relation to faculty performance evaluations. (Delphi Round III approval) | M=4.00 | | |
| Faculty performance is regularly assessed. (Delphi Round III approval) | M=4.39 | | |
| Alignment of learning outcomes from course to course exists. (Delphi Round III approval) | M=4.26 | | |
| Course evaluations collect student feedback on quality of content and effectiveness of instruction. (Delphi Round II approval) | M=4.03 | | |

# Appendix RR

## Delphi Round V Results

1. In the recent surveys, two of the previously suggested quality indicators were inadvertently combined and should be been evaluated separately. Together, they received consensus with M=4.18. Each indicator is presented below separately. Please rate each of them as stand alone indicators. Remember, to keep them as part of the scorecard, they need to achieve 70% consensus and a mean of 4.0 or above.

| | Definitely Not Relevant | Not Relevant | Slightly Relevant | Relevant | Definitely Relevant | Rating Average | Response Count |
|---|---|---|---|---|---|---|---|
| Students are instructed in the appropriate ways of enlisting help from the program. | 0.0% (0) | 0.0% (0) | 4.2% (1) | 58.3% (14) | 37.5% (9) | 4.33 | 24 |
| Support services are designed to build communication and affiliation among the online student population. | 7.4% (2) | 3.7% (1) | 33.3% (9) | 29.6% (8) | 25.9% (7) | 3.63 | 27 |

4. The following possible methods for scoring the quality scorecard were suggested. Please choose the one you feel would be the best solution for a scorecard that may be used by administrators like yourself. We need 70% consensus on the method which means you may have to re-vote on this in a final round if consensus is not reached in this round.
   Several commented that the categories needed to be weighted differently. This would happen if each indicator has the same point value because the categories have a different number of indicators.

| | Response Percent | Response Count |
|---|---|---|
| A. One point per indicator Click here to view an example. This option was suggested 4 times. | 14.3% | 4 |
| B. Five points per indicator Click here to view an example. | 3.6% | 1 |
| C. Each category equals 10 points Click here to view an example. This option was suggested 5 times. | 21.4% | 6 |
| D. Each category equals 1 point for a total scorecard value of 9 points Click here to view an example. | 0% | 0 |
| E. Each indicator equals one point but has 3 possible | 17.9% | 5 |

| | | |
|---|---|---|
| options: Does not meet standard (0 points). Partly meets standard (.5 point). Meets or exceeds standard completely (1 point). Quality programs must achieve 85% of possible points. Click here to view an example. | | |
| F. Each Indicator has 3 possible points (0 - not observed, 1 - insufficient, 2 - moderate use, 3 - completely meets criteria), then each area must have a certain percentage of the points to consider itself worthy of meeting the goals of that area. Click here to view an example. | 21.4% | 6 |
| G. Each Indicator has 3 options: Below Acceptable Standards (0 points), Meets Expected Standards (1 point) and Exceeds Standards (2 points) Click here to view an example. | 10.7% | 3 |
| H. A simple Likert scale with anchors to improve reliability (a numeric value for scoring was not included but a scale of 0-4 is shown in the example) Click here to view an example. | 10.7% | 3 |

5. This could possibly be the final survey for the research study if consensus is reached on the scoring method. If not, only one more round should be needed. Everyone that participated on the panel will receive a copy of this version of the final scorecard with the chosen scoring method as well as one that may be finalized in the near future. For completing all of the survey rounds, each of you will be receiving a $25 gift certificate (if you can accept honorariums) to Amazon from me to say thank you - I am so grateful for your expertise and participation.

However, there was a suggestion made that the final scorecard should be reviewed and some of the indicators needed to be reworded. Please respond below if you would like to remain on the panel for a final review of the scorecard and wording. It would probably mean a couple of more surveys to answer.

| | Response Percent | Response Count |
|---|---|---|
| Yes, I would like to continue on the panel for additional survey rounds to further examine the scorecard. | 82.1% | 23 |
| No, I would like to end my participation in this research study. | 17.9% | 5 |

# Appendix SS

## IRB Approval for Delphi Round VI

June 21, 2010

Virginia Shelton
Department of Educational Administration
4105 Wildbriar Ln Mansfield, TX 76063

Jody Isernhagen
Department of Educational Administration
132 TEAC, UNL, 68588-0360

IRB Number:
Project ID: 10379
Project Title: A QUALITY SCORECARD FOR THE ADMINISTRATION OF ONLINE EDUCATION PROGRAMS: A DELPHI STUDY

Dear Virginia:

The Institutional Review Board for the Protection of Human Subjects has completed its review of the Request for Change in Protocol submitted to the IRB.

1. The Round 6 survey has approved. You are authorized to conduct this part of your research.

We wish to remind you that the principal investigator is responsible for reporting to this Board any of the following events within 48 hours of the event:
* Any serious event (including on-site and off-site adverse events, injuries, side effects, deaths, or other problems) which in the opinion of the local investigator was unanticipated, involved risk to subjects or others, and was possibly related to the research procedures;
* Any serious accidental or unintentional change to the IRB-approved protocol that involves risk or has the potential to recur;
* Any publication in the literature, safety monitoring report, interim result or other finding that indicates an unexpected change to the risk/benefit ratio of the research;
* Any breach in confidentiality or compromise in data privacy related to the subject or others; or
* Any complaint of a subject that indicates an unanticipated risk or that cannot be resolved by the research staff.

This letter constitutes official notification of the approval of the protocol change. You are therefore authorized to implement this change accordingly.

If you have any questions, please contact the IRB office at 472-6965.

Sincerely,

Becky R. Freeman, CIP
for the IRB

# Appendix TT

## Delphi Round VI Survey Instrument

This survey round (Survey Round #6) only has 6 items for you to evaluate (1 item on scoring method and 5 items on quality indicators that were left out from a previous round). Please respond to the survey keeping in mind that your answers should support the development of a quality scorecard that could be generally used by administrators of online education programs. **If you were to use this to evaluate your program, what would be the best method for scoring it in a way that you could compare the results to other programs?**

If consensus is gained on the scoring method, this will end the study.

1. The following possible methods for scoring the quality scorecard were suggested in Round 4. Please choose the one you feel would be the best solution for a scorecard that may be used by administrators like yourself. We need 70% consensus on the method which means you may have to re-vote on this in a final round if consensus is not reached in this round.

   You are voting only on the responses that 70% of the panel chose. Those eliminated were not chosen by the majority of the panel.

   ☐ A. One point per indicator = 68 total points for a perfect score
   Click here to view an example. This scoring method received 14.3% of the panel vote.

   ☐ C. Each category equals 10 points = 90 total points for a perfect score
   Click here to view an example. This scoring method received 21.4% of the panel vote.

   ☐ E. Each indicator equals one point but has 3 possible options: Does not meet standard (0 points). Partly meets standard (.5 point). Meets or exceeds standard completely (1 point). Quality programs must achieve 85% of possible points. A perfect score=68 total points.
   Click here to view an example. This scoring method received 17.9% of the panel vote.

   ☐ F. Each Indicator has 3 possible points (0 - not observed, 1 - insufficient, 2 - moderate use, 3 - completely meets criteria), then each area must have a certain percentage of the points to consider itself worthy of meeting the goals of that area. A perfect score=204 points.
   Click here to view an example. This scoring method received 21.4% of the panel vote.

2. The following are possible quality indicators for online programs that were suggested in Delphi Round 2 and were inadvertently left out of the survey. Click ***here*** for the scorecard and all approved indicators and review it before voting on the following.

| | Definitely Not Relevant | Not Relevant | Slightly Relevant | Relevant | Definitely Relevant |
|---|---|---|---|---|---|
| Each course includes an orientation module. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Instructors use specific strategies to create a presence in the course. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Students have at least some choice in their activities/assignments. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Course modules are designed for visual appeal as well as clarity and consistency (use of white space, color, well-chosen fonts, no gimmicky graphics/animations that have no real purpose. | ☐ | ☐ | ☐ | ☐ | ☐ |
| Documents attached to modules are in a format that is easily accessed with multiple operating systems and productivity software (PDF, for example). | ☐ | ☐ | ☐ | ☐ | ☐ |
| Institution branding is evident in every part of each course. | ☐ | ☐ | ☐ | ☐ | ☐ |

Thank you!

If consensus is reached, our study will end for now. Those of you that indicated you would like to continue work on the rubric will be contacted on how Sloan-C wants to proceed. You will receive a final copy of the scorecard and your Amazon gift certificate soon after the study ends.

Thank you so much for your invaluable participation!

# Appendix UU

## Delphi Round VI: Initial Email for Survey

To: [Email]
From: kaye@dbu.edu

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Subject: Quality Scorecard for Online Education Programs: Round 6

Dear [FirstName],

The next survey round is now available for your participation. This round has 6 questions for you to answer. The first question addresses the scoring method and only the most popular choices for scoring are being returned in this question.

The second screen presents five potential quality indicators that were suggested in Round 2 and inadvertently missed. Please be sure to review the approved scorecard as you evaluate these additional indicators.

This round will be open only for 7 days and will close on Monday, June 28th at 5pm Central Time.

Your survey link is here:
http://www.surveymonkey.com/s.aspx

Please let me know if you have any questions. Your participation and feedback is vital to this project, so again, thank you.

Kaye Shelton
Dean, Online Education
Dallas Baptist University
UNL Doctoral Candidate
214 235 6635
kaye@dbu.edu

Please note: If you do not wish to receive further emails from us, please click the link below, and you will be automatically removed from our mailing list.
http://www.surveymonkey.com/optout.aspx

# Appendix VV

## Delphi Round VI: Reminder Email

June 24, 2010

To: [Email]
From: kaye@dbu.edu

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Subject: Reminder to Complete Quality Scorecard Study

Dear [FirstName],

This is just a reminder that you have just a few days to complete the latest survey (and potentially the last). The survey will close on Monday, June 28th at 5pm Central time.

Here is your specific link to the survey:
http://www.surveymonkey.com/s.aspx

This link is uniquely tied to this survey and your email address. Please do not forward this message.

Thank you so much and please let me know if you have any questions or difficulties.

Kaye Shelton
UNL Doctoral Candidate
214-235-6635
kaye@dbu.edu

Please note: If you do not wish to receive further emails from us, please click the link below, and you will be automatically removed from our mailing list.
http://www.surveymonkey.com/optout.aspx

# Appendix WW

## Delphi Round VI: Final Reminder Email

To: name
From: kaye@dbu.edu

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Subject: Final Reminder for Round 6: A Quality Scorecard for Online Education Programs

Dear Name:

This is your final reminder to complete the available survey. This survey is very short and will probably be the final one for this research study, as consensus is close to being achieved on the method of scoring. The survey will close on June 28, 2010.

Here is a link to the survey:
http://www.surveymonkey.com/s.aspx

This link is uniquely tied to this survey and your email address. Please do not forward this message.

Thank you for your participation! If you have any questions or difficulty, please give me a call (214-235-6635).

Kaye Shelton
UNL Doctoral Candidate
kaye@dbu.edu

Please note: If you do not wish to receive further emails from us, please click the link below, and you will be automatically removed from our mailing list.
http://www.surveymonkey.com/optout.aspx

# Appendix XX

## Delphi Round VI Results

1. The following possible methods for scoring the quality scorecard were suggested in Round 4. Please choose the one you feel would be the best solution for a scorecard that may be used by administrators like yourself. We need 70% consensus on the method which means you may have to re-vote on this in a final round if consensus is not reached in this round.

You are voting only on the responses that 70% of the panel chose. Those eliminated were not chosen by the majority of the panel.

| | Response Percent | Response Count |
|---|---|---|
| A. One point per indicator = 68 total points for a perfect score Click here to view an example. This scoring method received 14.3% of the panel vote. | 7.7% | 2 |
| C. Each category equals 10 points = 90 total points for a perfect score Click here to view an example. This scoring method received 21.4% of the panel vote. | 7.7% | 2 |
| E. Each indicator equals one point but has 3 possible options: Does not meet standard (0 points). Partly meets standard (.5 point). Meets or exceeds standard completely (1 point). Quality programs must achieve 85% of possible points. A perfect score=68 total points. Click here to view an example. This scoring method received 17.9% of the panel vote. | 11.5% | 3 |
| F. Each Indicator has 3 possible points (0 - not observed, 1 - insufficient, 2 - moderate use, 3 - completely meets criteria), then each area must have a certain percentage of the points to consider itself worthy | **73.1%** | **19** |

1. The following possible methods for scoring the quality scorecard were suggested in Round 4. Please choose the one you feel would be the best solution for a scorecard that may be used by administrators like yourself. We need 70% consensus on the method which means you may have to re-vote on this in a final round if consensus is not reached in this round.

You are voting only on the responses that 70% of the panel chose. Those eliminated were not chosen by the majority of the panel.

of meeting the goals of that area. A perfect score=204 points. Click here to view an example. This scoring method Received 21.4% of the panel vote.

1. The following are possible quality indicators for online programs that were suggested in Delphi Round 2 and were inadvertently left out of the survey. Click here for the scorecard and all approved indicators and review it before voting on the following.

| | Definitely Not Relevant | Not Relevant | Slightly Relevant | Relevant | Definitely Relevant | Mean | Response Count |
|---|---|---|---|---|---|---|---|
| Each course includes an orientation module. | 0.0% (0) | 24.0% (6) | 8.0% (2) | 48.0% (12) | 20.0% (5) | 3.64 | 25 |
| Instructors use specific strategies to create a presence in the course. | 0.0% (0) | 4.0% (1) | 20.0% (5) | 36.0% (9) | 40.0% (10) | 4.12 | 25 |
| Students have at least some choice in their activities/assignments. | 4.0% (1) | 28.0% (7) | 44.0% (11) | 20.0% (5) | 4.0% (1) | 2.92 | 25 |
| Course modules are designed for visual appeal as well as clarity and consistency (use of white space, color, well-chosen fonts, | 4.0% (1) | 12.0% (3) | 24.0% (6) | 40.0% (10) | 20.0% (5) | 3.60 | 25 |

1. The following are possible quality indicators for online programs that were suggested in Delphi Round 2 and were inadvertently left out of the survey. Click here for the scorecard and all approved indicators and review it before voting on the following.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| no gimmicky graphics/animations that have no real purpose. | | | | | | | |
| Documents attached to modules are in a format that is easily accessed with multiple operating systems and productivity software (PDF, for example). | 0.0% (0) | 0.0% (0) | 12.0% (3) | 44.0% (11) | 44.0% (11) | 4.32 | 25 |
| Institution branding is evident in every part of each course. | 8.0% (2) | 28.0% (7) | 20.0% (5) | 36.0% (9) | 8.0% (2) | 3.08 | 25 |

# Appendix YY

## Panel Approved Quality Scorecard with Scoring Method

## (Final Results after Delphi Round VI)

## Quality Scorecard for the Administration of an Online Education Program

| | Institutional Support | Not Observed | Insufficient | Moderate Use | Meets Criteria Completely | Score | |
|---|---|---|---|---|---|---|---|
| 1. | The institution has put in place a governance structure to enable effective and comprehensive decision making related to distance learning. | 0 | 1 | 2 | 3 | | |
| 2. | Policies are in place to authenticate that students enrolled in online courses, and receiving college credit are indeed those completing the course work. | 0 | 1 | 2 | 3 | | |
| 3. | Policy for copyright ownerships of course materials exists. | 0 | 1 | 2 | 3 | | |
| 4. | The institution has defined the strategic value of distance learning to its enterprise and to its relevant parts. | 0 | 1 | 2 | 3 | | 12 |
| | **Technology Support** | | | | | | |
| 5. | A documented technology plan that includes electronic security measures (e.g., password protection, encryption, secure online or proctored exams, etc.) is in place and operational to ensure quality standards, adherence to FERPA and the integrity and validity of information. | 0 | 1 | 2 | 3 | | |
| 6. | The technology delivery systems are highly reliable and operable with measurable standards being utilized such as system downtime tracking or task benchmarking. | 0 | 1 | 2 | 3 | | |
| 7. | A centralized system provides support for building and maintaining the distance education infrastructure. | 0 | 1 | 2 | 3 | | |
| 8. | The course delivery technology is considered a mission critical enterprise system and supported as such. | 0 | 1 | 2 | 3 | | |
| 9. | Institution maintains system backup for data availability. | 0 | 1 | 2 | 3 | | |
| 10. | Faculty, staff, and students are supported in the development and | 0 | 1 | 2 | 3 | | 18 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | use of new technologies and skills. | | | | | | |
| | **Course Development and Instructional Design** | | | | | | |
| 11. | Guidelines regarding minimum standards are used for course development, design, and delivery of online instruction. | 0 | 1 | 2 | 3 | | |
| 12. | Technology is used as a tool to achieve learning outcomes in delivering course content. | 0 | 1 | 2 | 3 | | |
| 13. | Instructional materials, course syllabus and learning outcomes are reviewed periodically to ensure they meet program standards. | 0 | 1 | 2 | 3 | | |
| 14. | Courses are designed so that students develop the necessary knowledge and skills to meet learning objectives at the course and program level. These may include engagement via analysis, synthesis and evaluation. | 0 | 1 | 2 | 3 | | |
| 15. | Learning objectives describe outcomes that are measurable. | 0 | 1 | 2 | 3 | | |
| 16. | Selected assessments measure the course learning objectives and are appropriate for an online learning environment. | 0 | 1 | 2 | 3 | | |
| 17. | Student-centered instruction is considered during the course-development process. | 0 | 1 | 2 | 3 | | |
| 18. | There is consistency in course development for student retention and quality. | 0 | 1 | 2 | 3 | | |
| 19. | Course design promotes both faculty and student engagement. | 0 | 1 | 2 | 3 | | |
| 20. | Current and emerging technologies are evaluated and recommended for online teaching and learning. | 0 | 1 | 2 | 3 | | |
| 21. | Instructional design is provided for creation of effective pedagogy for both synchronous and asynchronous class sessions. | 0 | 1 | 2 | 3 | | |
| 22. | Curriculum development is a core responsibility for faculty. | 0 | 1 | 2 | 3 | | 36 |
| | **Course Structure** | | | | | | |

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|---|---|---|---|---|---|---|---|
| 23. | The online course site includes a syllabus outlining course objectives, learning outcomes, evaluation methods, textbook information, and other related course information, making course requirements transparent at time of registration. | 0 | 1 | 2 | 3 | | |
| 24. | The institution ensures that all distance education students, regardless of where they are located, have access to library/learning resources adequate to support the courses they are taking (SACS statement). | 0 | 1 | 2 | 3 | | |
| 25. | Expectations for student assignment completion, grade policy and faculty response are clearly provided in the course syllabus. | 0 | 1 | 2 | 3 | | |
| 26. | Links or explanations of technical support are available in the course. | 0 | 1 | 2 | 3 | | |
| 27. | Instructional materials are easily accessible and usable for the student. | 0 | 1 | 2 | 3 | | |
| 28. | The course adequately addresses the special needs of disabled students via alternative instructional strategies and/or referral to special institutional resources. | 0 | 1 | 2 | 3 | | |
| 29. | Opportunities/tools provided to encourage student-student collaboration (i.e, web conferencing, instant messaging, etc) | 0 | 1 | 2 | 3 | | |
| 30. | Documents attached to modules are in a format that is easily accessed with multiple operating systems and productivity software (PDF, for example). | 0 | 1 | 2 | 3 | | 24 |
| | **Teaching and Learning** | | | | | | |
| 31. | Student-to-Student interaction and Faculty-to-Student interaction are essential characteristics and are facilitated through a variety of ways. | 0 | 1 | 2 | 3 | | |
| 32. | Feedback on student assignments and questions is constructive and provided in a timely manner. | 0 | 1 | 2 | 3 | | |
| 33. | Students learn appropriate methods for effective research, including assessment of the validity of resources and the ability to master resources in an online environment. | 0 | 1 | 2 | 3 | | |

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|---|---|---|---|---|---|---|---|
| 34. | Students are provided access to library professionals and resources that help them to deal with the overwhelming amount of online resources. | 0 | 1 | 2 | 3 | | |
| 35. | Instructors use specific strategies to create a presence in the course. | 0 | 1 | 2 | 3 | | 15 |
| | **Social And Student Engagement** | | | | | | |
| 36. | Students should be provided a way to interact with other students in an online community. | 0 | 1 | 2 | 3 | | 3 |
| | **Faculty Support** | | | | | | |
| 37. | Technical assistance in course development and assistance with the transition to teaching online is provided [for faculty]. | 0 | 1 | 2 | 3 | | |
| 38. | Instructors are prepared to teach distance education courses and the institution ensures faculty receive training, assistance and support at all times during the development and delivery of courses. | 0 | 1 | 2 | 3 | | |
| 39. | Faculty receive training and materials related to Fair Use, plagiarism, and other relevant legal and ethical concepts. | 0 | 1 | 2 | 3 | | |
| 40. | Faculty are provided on-going professional development related to online teaching and learning. | 0 | 1 | 2 | 3 | | |
| 41. | Clear standards are established for faculty engagement and expectations around online teaching | 0 | 1 | 2 | 3 | | |
| 42. | Faculty workshops are provided to make them aware of emerging technologies and the selection and use of these tools. | 0 | 1 | 2 | 3 | | 18 |
| | **Student Support** | | | | | | |
| 43. | Before starting an online program, students are advised about the program to determine if they possess the self-motivation and commitment to learn at a distance. | 0 | 1 | 2 | 3 | | |

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|---|---|---|---|---|---|---|---|---|
| | 44. | Before starting an online program, students are advised about the program to determine if they have access to the minimal technology required by the course design. | 0 | 1 | 2 | 3 | | |
| | 45. | Students receive (or have access to) information about programs, including admission requirements, tuition and fees, books and supplies, technical and proctoring requirements, and student support services prior to admission and course registration. | 0 | 1 | 2 | 3 | | |
| | 46. | Students are provided with access to training and information they will need to secure required materials through electronic databases, interlibrary loans, government archives, new services and other sources. | 0 | 1 | 2 | 3 | | |
| | 47. | Throughout the duration of the course/program, students have access to appropriate technical assistance and technical support staff. | 0 | 1 | 2 | 3 | | |
| | 48. | Student support personnel are available to address student questions, problems, bug reporting, and complaints | 0 | 1 | 2 | 3 | | |
| | 49. | Students have access to effective academic, personal, and career counseling. | 0 | 1 | 2 | 3 | | |
| | 50. | Minimum technology standards are established and made available to students. | 0 | 1 | 2 | 3 | | |
| | 51. | Student support services are provided for outside the classroom such as academic advising, financial assistance, peer support, etc. | 0 | 1 | 2 | 3 | | |
| | 52. | Policy and process is in place to support ADA requirements. | 0 | 1 | 2 | 3 | | |
| | 53. | Students are provided relevant information: ISBN numbers, suppliers, etc. and delivery modes for all required; instructional materials: digital format, e-packs, print format, etc. to ensure easy access. | 0 | 1 | 2 | 3 | | |
| | 54. | Program demonstrates a student-centered focus rather than trying to fit service to the distance education student in on-campus student services. | 0 | 1 | 2 | 3 | | |

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|---|---|---|---|---|---|---|---|
| 55. | Efforts are made to engage students with the program and institution. | 0 | 1 | 2 | 3 | | |
| 56. | Students are instructed in the appropriate ways of communicating with faculty and students. | 0 | 1 | 2 | 3 | | |
| 57. | The institution provides guidance to both students and faculty in the use of all forms of technologies used for course delivery. | 0 | 1 | 2 | 3 | | |
| 58. | Tutoring is available as a learning resource. | 0 | 1 | 2 | 3 | | |
| 59. | Students are instructed in the appropriate ways of enlisting help from the program | 0 | 1 | 2 | 3 | | 51 |
| | **Evaluation and Assessment** | | | | | | |
| 60. | The program is assessed through an evaluation process that applies specific established standards. | 0 | 1 | 2 | 3 | | |
| 61. | A variety of data (academic and administrative information) are used to regularly and frequently evaluate program effectiveness and to guide changes toward continual improvement. | 0 | 1 | 2 | 3 | | |
| 62. | Intended learning outcomes at the course and program level are reviewed regularly to ensure clarity, utility, and appropriateness. | 0 | 1 | 2 | 3 | | |
| 63. | A process is in place for the assessment of faculty and student support services. | 0 | 1 | 2 | 3 | | |
| 64. | Course and program retention is assessed. Results of course evaluations are used as part of faculty/instructor performance evaluations. | 0 | 1 | 2 | 3 | | |
| 65. | Recruitment and retention are examined and reviewed. | 0 | 1 | 2 | 3 | | |
| 66. | Program demonstrates compliance and review of accessibility standards (Section 508, etc.) | 0 | 1 | 2 | 3 | | |
| 67. | Course evaluations are examined in relation to faculty performance evaluations. | 0 | 1 | 2 | 3 | | |
| 68. | Faculty performance is regularly assessed. | 0 | 1 | 2 | 3 | | |
| 69. | Alignment of learning outcomes from course to course exists. | 0 | 1 | 2 | 3 | | |

| | | | | |
|---|---|---|---|---|
| 70. | Course evaluations collect student feedback on quality of content and effectiveness of instruction. | 0 1 2 3<br><br>Perfect Score = 210<br>Each category would have a minimum for a quality program | | 33 |

# Appendix ZZ

## All Additional Quality Indicators Suggested by Panel of Experts

| | INSTITUTIONAL SUPPORT CATEGORY | Round III Result | Resulting Action | Round IV Result | Resulting Action |
|---|---|---|---|---|---|
| 1. | The institution provides documented processes and procedures that enable distance learning. | Retired before Round III | -- | -- | -- |
| 2. | Underlying learning managements systems are flexible enough to support emerging technologies, e.g. social networking tools, mobile devices, Web 2.0, etc. | M=3.35 | Decreased, Retired | -- | -- |
| 3. | Institutions must provide guidance to faculty and students on use of unsupported technologies. | Retired before Round III | -- | -- | -- |
| 4. | The institution makes bookstore services available to students. | M=3.55 | Increased, Returned for Re-vote | M=3.62 | Did not reach consensus, Retired |
| 5. | The institution has defined the strategic value of distance learning to its enterprise and to its relevant parts. | M=3.87 | Increased, Returned for Re-vote | M=4.03 | Consensus Round IV |
| 6. | The tech plan also needs to consider and address vended relationships and, especially, support via cloud computing. It needs to ensure end to end operability of all systems that support distance learning. Also, “security measures” are generally handled for all campus enterprise systems through an LDAP server which authenticates users. | Retired before Round III | -- | -- | -- |
| 7. | The institution has put in place a governance structure to enable effective and comprehensive decision making related to distance learning. | Consensus Round II | -- | -- | -- |

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|---|---|---|---|---|---|
| 8. | Policies are in place to authenticate that students enrolled in online courses, and receiving college credit are indeed those completing the course work | Consensus Round II | -- | -- | -- |
| 9. | Sustainability and Scalability: A stable support mechanism/financial model to reduce recreating the same course multiple times for example if an instructor leaves the university and there is no agreement governing the intellectual property that would allow the continued use of the course materials. | M=3.29 | Decreased, Retired | -- | -- |
| 10. | Students ensured all they need for degree is offered in program before enrolling, | M=3.52 | Increased, Returned for Re-vote | M=3.90 | Did not reach consensus, Retired |
| | TECHNOLOGY SUPPORT | | | | |
| 11. | Appropriate policies are developed, reviewed, and disseminated to all stakeholders. (moved to Technology Support for Round IV) | M=3.91 | Increased, Returned for Re-vote | M=3.99 | Did not reach consensus, Retired |
| 12. | Faculty, staff, and students are supported in the development and use of new technologies and skills. (moved to Technology Support for Round IV) | M=3.75 | Increased, Returned for Re-vote | M=4.15 | Consensus Round IV |
| 13. | Institution maintains system for backup for data availability. (moved to Technology Support) | Consensus Round II | -- | -- | -- |
| 14. | The course delivery technology is considered a mission critical enterprise system and supported as such. (moved to Technology | M=4.35 | Consensus Round III | -- | -- |

Support for Round IV)

| COURSE DEVELOPMENT/ INSTRUCTIONAL DESIGN | | | | |
|---|---|---|---|---|
| 15. There is consistency in course development for student retention and quality | Consensus Round II | -- | -- | -- |
| 16. Instructional design is provided for creation of effective pedagogy for synchronous sessions. | Retired before Round III, Duplicate | -- | -- | -- |
| 17. Policy for Copyright ownerships of course materials exists. | Consensus Round II | -- | -- | -- |
| 18. Curriculum development is a core responsibility for faculty. | M=3.45 | Increased, Returned for Re-vote | M=4.03 | Consensus Round IV |
| 19. Learning objectives describe outcomes that are measurable. | M=4.32 | Consensus Round III | -- | -- |
| 20. Development of online course materials takes into account the changing context of media delivery | M=3.75 | Increased, Returned for Re-vote | M=3.93 | Consensus Round IV |
| 21. Selected assessments measure the course learning objectives and are appropriate for an online learning environment | M=4.32 | Consensus Round III | -- | -- |
| 22. Course objectives provide opportunity for student interaction. | M=3.77 | Decreased, Retired | -- | -- |
| 23. Course design promotes both faculty and student engagement. | Consensus Round II | -- | -- | -- |
| 24. Student-centered instruction is considered during the course-development process. | Consensus Round II | -- | -- | -- |

| | | | | |
|---|---|---|---|---|
| 25. Instructional design is provided for creation of effective pedagogy for both synchronous and asynchronous class sessions. | M=3.84 | Increased, Returned for Re-vote | M=4.24 | Consensus Round IV |
| TEACHING AND LEARNING | | | | |
| 26. Students are provided access to library professionals and resources that help them to deal with the overwhelming amount of online resources. | M=3.58 | Increased, Returned for Re-vote | M=4.00 | Consensus Round IV |
| 27. Course material presented in a variety of ways | M=3.52 | Increased, Returned for Re-vote | M=3.82 | Did not reach consensus, Retired |
| 28. Interactive elements such as video and flash graphics to help engage the students' understanding of key learning objectives | M=3.42 | Increased, Returned for Re-vote | M=3.46 | Did not reach consensus, Retired |
| 29. Students are provided access to library professionals and resources that help them to deal with the overwhelming amount of online resources. | Retired before Round III | -- | -- | -- |
| 30. Online courses/programs use one course management platform, creating a single delivery model, and students receive an online instructional orientation to the course management platform. | M=3.81 | Increased, Returned for Re-vote | M=3.86 | Did not reach consensus, Retired |
| 31. Instructors use specific strategies to create a presence in the course. *** | Missed in Round II | Presented in Round VI | M=4.12 | Consensus Round VI |
| COURSE STRUCTURE | | | | |
| 32. Students ensured all they need for degree is offered in program before enrolling | Moved to Institutional Support | -- | -- | -- |

| | | | | |
|---|---|---|---|---|
| 33. Opportunities/tools provided to encourage student-student collaboration (i.e, web conferencing, instant messaging, etc). | M=3.81 | Increased, Returned for Re-vote | M=4.14 | Consensus Round IV |
| 34. Honor code used to enable a culture of accountability | M=3.19 | Decreased, Retired | -- | -- |
| 35. Links or explanations of technical support are available in the course. | M=4.29 | Consensus Round III | -- | -- |
| 36. Instructional materials are easily accessible and usable for the student. | Consensus Round II | -- | -- | -- |
| 37. The course adequately addresses the special needs of disabled students via alternative instructional strategies and/or referral to special institutional resources. | Consensus Round II | -- | -- | -- |
| 38. Optional synchronous sessions with faculty are offered and archived to be available asynchronously as well, to allow students access to faculty | Retired before Round III | -- | -- | -- |
| 39. Documents attached to modules are in a format that is easily accessed with multiple operating systems and productivity software (PDF, for example). *** | Missed in Round II | Presented in Round VI | M=4.32 | Consensus Round VI |
| 40. Each course includes an orientation module. *** | Missed in Round II | Presented in Round VI | M=3.64 | Retired Round VI |
| 41. Students have at least some choice in their activities/assignments. *** | Missed in Round II | Presented in Round VI | M=2.92 | Retired Round VI |

| | | | | |
|---|---|---|---|---|
| 42. Course modules are designed for visual appeal as well as clarity and consistency (use of white space, color, well-chosen fonts, no gimmicky graphics/animations that have no real purpose. *** | Missed in Round II | Presented in Round VI | M=3.60 | Retired Round VI |
| 43. Institution branding is evident in every part of each course. *** | Missed in Round II | Presented in Round VI | M=3.08 | Retired Round VI |
| STUDENT SUPPORT | | | | |
| 44. Students are provided relevant information: ISBN numbers, suppliers, etc. and delivery modes for all required instructional materials: digital format, e-packs, print format, etc. to ensure easy access. | M=3.94 | Increased, Returned for Re-vote | M=4.14 | Consensus Round IV |
| 45. While technologies may not be supported centrally (like available in the cloud or openly), there needs to guidance on how these tools will be supported and the ramifications to students. | M=3.35 | Increased, Returned for Re-vote | M=3.31 | Did not reach consensus, Retired |
| 46. Student support services are provided for outside the classroom such as academic advising, financial assistance, peer support, etc | Consensus Round II | -- | -- | -- |
| 47. Program demonstrates a student-centered focus rather than trying to fit service to the distance education student in on-campus student services. | M=3.81 | Increased, Returned for Re-vote | M=4.07 | Consensus Round IV |
| 48. Automated support tools are available for faculty to provide early intervention to support student success. | M=3.55 | Increased, Returned for Re-vote | M=3.69 | Did not reach consensus, Retired |
| 49. Efforts are made to engage students with the program & institution | M=3.84 | Increased, Returned for Re-vote | M=4.07 | Consensus Round IV |

| | | | | |
|---|---|---|---|---|
| 50. Students are instructed in the appropriate ways of communicating with faculty and students | M=3.87 | Increased, Returned for Re-vote | M=4.21 | Consensus Round IV |
| 51. Students are instructed in the appropriate ways of enlisting help from the program (the latter part of this suggestion was missed by the researcher and included in Delphi Round V- *Support services are designed to build communication and affiliation among the online student population*) | M=3.71 | Increased, Returned for Re-vote | M=4.33 | Consensus Round V |
| 52. Support services are designed to build communication and affiliation among the online student population | -- | -- | M=3.63 | Retired after Round V |
| 53. Students agree and understand the expectations of the program and courses | M=3.90 | Increased, Returned for Re-vote | M=3.97 | Did not reach consensus, Retired |
| 54. Students should be provided a way to interact with other students in an online community | Retired before Round III | -- | -- | -- |
| 55. The institution provides guidance to both students and faculty in the use of all forms of technologies used for course delivery | M=3.77 | Increased, Returned for Re-vote | M=4.21 | Consensus Round IV |
| 56. Students have access to effective academic, personal, and career counseling | M=4.19 | Consensus Round III | -- | -- |
| 57. Tutoring is available as a learning resource. | M=3.94 | Increased, Returned for Re-vote | M=4.07 | Consensus Round IV |
| 58. Minimum technology standards are established and made available to students. | M=4.13 | Consensus Round III | -- | -- |
| 59. Policy and process is in place to support ADA requirements. | Consensus Round II | -- | -- | -- |

| | | | | |
|---|---|---|---|---|
| SOCIAL AND STUDENT ENGAGEMENT | | | | |
| 60. Students should be provided a way to interact with other students in an online community. | M=3.94 | Increased, Returned for Re-vote | M=4.07 | Consensus Round IV |
| FACULTY SUPPORT | | | | |
| 61. New learning skills for online teaching and learning are identified. | M=3.50 | Increased, Returned for Re-vote | M=3.62 | Did not reach consensus, Retired |
| 62. Review of web.2.0 tools and emerging technologies and faculty. | M=3.35 | Increased, Returned for Re-vote | M=3.31 | Did not reach consensus, Retired |
| 63. Workshops are provided for keeping faculty updated in selection and use of tools. | Retired before Round III | -- | -- | -- |
| 64. Faculty are provided on-going professional development related to online teaching and learning. | Consensus Round II | -- | -- | -- |
| 65. Faculty workshops are provided to make them aware of emerging technologies and the selection and use of these tools. | M=3.77 | Increased, Returned for Re-vote | M=4.03 | Consensus Round IV |
| 66. Clear standards are established for faculty engagement and expectations around online teaching | Consensus Round II | -- | -- | -- |
| EVALUATION AND ASSESSMENT | | | | |

| | | | | |
|---|---|---|---|---|
| 67. Online learning should be robustly evaluated using tools widely available, so that faculty and students know what students perceive about the efficacy of online learning and so the institution knows how they compare and how they can improve. | M=3.55 | Increased, Returned for Re-vote | M=3.71 | Did not reach consensus, Retired |
| 68. A process is in place for the assessment of faculty and student support services. | M=4.26 | Consensus Round III | -- | -- |
| 69. Course and program retention is assessed. Results of course evaluations are used as part of faculty/instructor performance evaluations. | M=4.19 | Consensus Round III | -- | -- |
| 70. Recruitment and retention are examined and reviewed | M=4.06 | Consensus Round III | -- | -- |
| 71. Evaluation should include evaluation by potential employers. | Retired before Round III | -- | -- | -- |
| 72. Course evaluations collect student feedback on quality of content and effectiveness of instruction. | Consensus Round II | -- | -- | -- |
| 73. The relationship between online education programs and institutional mission must be included as a measure. | M=3.48 | Increased, Returned for Re-vote | M=3.41 | Did not reach consensus, Retired |
| 74. Program demonstrates compliance and review of accessibility standards (Section 508, etc.). | M=4.29 | Consensus Round III | -- | -- |
| 75. Student evaluations of course/instructor/program are made available. | M=3.86 | Increase, Returned for Re-vote | M=3.86 | Did not reach consensus, Retired |
| 76. Course evaluations are examined in relation to faculty performance evaluations. | M=4.00 | Consensus Round III | -- | -- |

| | | | | |
|---|---|---|---|---|
| 77. Aggregation of data to ensure each class is being taught well. | Retired before Round III | -- | -- | -- |
| 78. Faculty performance is regularly assessed. | M=4.39 | Consensus Round III | -- | -- |
| 79. Alignment of learning outcomes from course to course exists. | M=4.26 | Consensus Round III | -- | -- |
| 80. Online learning should be robustly evaluated using tools widely available, so that faculty and students know what students perceive about the efficacy of online learning and so the institution knows how they compare and how they can improve. The credentials of the distance education support staff and administration, in terms of years of professional experience and education level as well as type of degree earned (educational technology or general education verses non-education). | Retired before Round III | -- | -- | -- |

*** These six indicators were missed in earlier rounds and fed back to the panel in Round VI.

# Appendix AAA

## Final Version of the Quality Scorecard

## A Quality Scorecard for the Administration of Online Education Programs

This scorecard is for the purpose of measuring and quantifying elements of quality within online education programs in higher education. The scorecard is an easy-to-use tool for online administrators to use for program evaluation. By evaluating each of the respective quality indicators within the established categories, an online administrator can determine strengths and weaknesses of their program. The identification of the weaknesses can be used to support program improvement and strategic planning initiatives. The scorecard could also be used to demonstrate to accrediting bodies, elements of quality within the program as well as an overall level of quality.

A scorecard is provided that contains 70 quality indicators--each indicator is worth up to three points. The administrator will determine at what level their program meets the intent of the quality indicator after examining all procedures and processes.

- 0 points = Not Observed. The administrator does not observe any indications of the quality standard in place.

- 1 point = Insufficiently Observed. The administrator has found a slight existence of the quality standard in place. Much improvement is still needed in this area.

- 2 points = Moderate Use. The administrator has found there to be moderate use of the quality standard. Some improvement is still needed in this area.

- 3 points = Meets Criteria Completely. The administrator has found that the quality standard is being fully implemented and there is no need for improvement in this area.

  A perfect score = 210 points.

  90-99% = 189-209 - Exemplary (little improvement is needed)

  80-89% = 168-188 - Acceptable (some improvement is recommended)

  70-79% = 147-167 - Marginal (significant improvement is needed in multiple areas)

  60-69% = 126-146 - Inadequate (many areas of improvement are needed throughout the program)

  59% and below = 125 pts and below - Unacceptable.

## QUALITY SCORECARD FOR THE ADMINISTRATION OF ONLINE EDUCATION PROGRAMS

| INSTITUTIONAL SUPPORT | Not Observed | Insufficient | Moderate Use | Meets Criteria Completely | Score | Points Possible Per Category |
|---|---|---|---|---|---|---|
| 1. The institution has put in place a governance structure to enable effective and comprehensive decision making related to distance learning. | 0 | 1 | 2 | 3 | | |
| 2. Policies are in place to authenticate that students enrolled in online courses and receiving college credit are indeed those completing the course work. | 0 | 1 | 2 | 3 | | |
| 3. Policy for copyright ownerships of course materials exists. | 0 | 1 | 2 | 3 | | |
| 4. The institution has defined the strategic value of distance learning to its enterprise and to its relevant parts. | 0 | 1 | 2 | 3 | | 12 |
| **TECHNOLOGY SUPPORT** | | | | | | |
| 5. A documented technology plan that includes electronic security measures (e.g., password protection, encryption, secure online or proctored exams, etc.) is in place and operational to ensure quality standards, adherence to FERPA, and the integrity and validity of information. | 0 | 1 | 2 | 3 | | |
| 6. The technology delivery systems are highly reliable and operable with measurable standards being utilized such as system downtime tracking or task benchmarking. | 0 | 1 | 2 | 3 | | |
| 7. A centralized system provides support for building and maintaining the distance education infrastructure. | 0 | 1 | 2 | 3 | | |
| 8. The course delivery technology is considered a mission critical enterprise system and supported as such. | 0 | 1 | 2 | 3 | | |
| 9. The institution maintains system backup for data availability. | 0 | 1 | 2 | 3 | | |
| 10. Faculty, staff, and students are supported in the development and use of new technologies and skills. | 0 | 1 | 2 | 3 | | 18 |
| **COURSE DEVELOPMENT AND INSTRUCTIONAL DESIGN** | | | | | | |
| 11. Guidelines regarding minimum standards are used for course development, design, and delivery of online instruction. | 0 | 1 | 2 | 3 | | |
| 12. Technology is used as a tool to achieve learning outcomes in delivering course content. | 0 | 1 | 2 | 3 | | |
| 13. Instructional materials, course syllabus, and learning outcomes are reviewed periodically to ensure they meet program standards. | 0 | 1 | 2 | 3 | | |
| 14. Courses are designed so that students develop the necessary knowledge and skills to meet learning objectives at the course and program level. These may include engagement via analysis, synthesis and evaluation. | 0 | 1 | 2 | 3 | | |
| 15. Learning objectives describe outcomes that are measurable. | 0 | 1 | 2 | 3 | | |

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## QUALITY SCORECARD FOR THE ADMINISTRATION OF ONLINE EDUCATION PROGRAMS

| COURSE DEVELOPMENT AND INSTRUCTIONAL DESIGN (cont.) | Not Observed | Insufficient | Moderate Use | Meets Criteria Completely | Score | Points Possible Per Category |
|---|---|---|---|---|---|---|
| 16. Selected assessments measure the course learning objectives and are appropriate for an online learning environment. | 0 | 1 | 2 | 3 | | |
| 17. Student-centered instruction is considered during the course-development process. | 0 | 1 | 2 | 3 | | |
| 18. There is consistency in course development for student retention and quality. | 0 | 1 | 2 | 3 | | |
| 19. Course design promotes both faculty and student engagement. | 0 | 1 | 2 | 3 | | |
| 20. Current and emerging technologies are evaluated and recommended for online teaching and learning. | 0 | 1 | 2 | 3 | | |
| 21. Instructional design is provided for creation of effective pedagogy for both synchronous and asynchronous class sessions. | 0 | 1 | 2 | 3 | | |
| 22. Curriculum development is a core responsibility for faculty. | 0 | 1 | 2 | 3 | | 36 |

| COURSE STRUCTURE | | | | | | |
|---|---|---|---|---|---|---|
| 23. The online course site includes a syllabus outlining course objectives, learning outcomes, evaluation methods, textbook information, and other related course information, making course requirements transparent at time of registration. | 0 | 1 | 2 | 3 | | |
| 24. The institution ensures that all distance education students, regardless of where they are located, have access to library/learning resources adequate to support the courses they are taking (SACS statement). | 0 | 1 | 2 | 3 | | |
| 25. Expectations for student assignment completion, grade policy, and faculty response are clearly provided in the course syllabus. | 0 | 1 | 2 | 3 | | |
| 26. Links or explanations of technical support are available in the course. | 0 | 1 | 2 | 3 | | |
| 27. Instructional materials are easily accessible and usable for the student. | 0 | 1 | 2 | 3 | | |
| 28. The course adequately addresses the special needs of disabled students via alternative instructional strategies and/or referral to special institutional resources. | 0 | 1 | 2 | 3 | | |
| 29. Opportunities/tools provided to encourage student-student collaboration (i.e, web conferencing, instant messaging, etc). | 0 | 1 | 2 | 3 | | |
| 30. Documents attached to modules are in a format that is easily accessed with multiple operating systems and productivity software (PDF, for example). | 0 | 1 | 2 | 3 | | 24 |

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## QUALITY SCORECARD FOR THE ADMINISTRATION OF ONLINE EDUCATION PROGRAMS

| TEACHING AND LEARNING | Not Observed | Insufficient | Moderate Use | Meets Criteria Completely | Score | Points Possible Per Category |
|---|---|---|---|---|---|---|
| 31. Student-to-Student interaction and Faculty-to-Student interaction are essential characteristics and are facilitated through a variety of ways. | 0 | 1 | 2 | 3 | | |
| 32. Feedback on student assignments and questions is constructive and provided in a timely manner. | 0 | 1 | 2 | 3 | | |
| 33. Students learn appropriate methods for effective research, including assessment of the validity of resources and the ability to master resources in an online environment. | 0 | 1 | 2 | 3 | | |
| 34. Students are provided access to library professionals and resources that help them to deal with the overwhelming amount of online resources. | 0 | 1 | 2 | 3 | | |
| 35. Instructors use specific strategies to create a presence in the course. | 0 | 1 | 2 | 3 | | 15 |
| **SOCIAL AND STUDENT ENGAGEMENT** | | | | | | |
| 36. Students should be provided a way to interact with other students in an online community. | 0 | 1 | 2 | 3 | | 3 |
| **FACULTY SUPPORT** | | | | | | |
| 37. Technical assistance in course development and assistance with the transition to teaching online is provided [for faculty]. | 0 | 1 | 2 | 3 | | |
| 38. Instructors are prepared to teach distance education courses and the institution ensures faculty receive training, assistance, and support at all times during the development and delivery of courses. | 0 | 1 | 2 | 3 | | |
| 39. Faculty receive training and materials related to Fair Use, plagiarism, and other relevant legal and ethical concepts. | 0 | 1 | 2 | 3 | | |
| 40. Faculty are provided on-going professional development related to online teaching and learning. | 0 | 1 | 2 | 3 | | |
| 41. Clear standards are established for faculty engagement and expectations around online teaching | 0 | 1 | 2 | 3 | | |
| 42. Faculty workshops are provided to make them aware of emerging technologies and the selection and use of these tools. | 0 | 1 | 2 | 3 | | 18 |

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## QUALITY SCORECARD FOR THE ADMINISTRATION OF ONLINE EDUCATION PROGRAMS

| STUDENT SUPPORT | Not Observed | Insufficient | Moderate Use | Meets Criteria Completely | Score | Points Possible Per Category |
|---|---|---|---|---|---|---|
| 43. Before starting an online program, students are advised about the program to determine if they possess the self-motivation and commitment to learn at a distance. | 0 | 1 | 2 | 3 | | |
| 44. Before starting an online program, students are advised about the program to determine if they have access to the minimal technology required by the course design. | 0 | 1 | 2 | 3 | | |
| 45. Students receive (or have access to) information about programs, including admission requirements, tuition and fees, books and supplies, technical and proctoring requirements, and student support services prior to admission and course registration. | 0 | 1 | 2 | 3 | | |
| 46. Students are provided with access to training and information they will need to secure required materials through electronic databases, interlibrary loans, government archives, new services and other sources. | 0 | 1 | 2 | 3 | | |
| 47. Throughout the duration of the course/program, students have access to appropriate technical assistance and technical support staff. | 0 | 1 | 2 | 3 | | |
| 48. Student support personnel are available to address student questions, problems, bug reporting, and complaints. | 0 | 1 | 2 | 3 | | |
| 49. Students have access to effective academic, personal, and career counseling. | 0 | 1 | 2 | 3 | | |
| 50. Minimum technology standards are established and made available to students. | 0 | 1 | 2 | 3 | | |
| 51. Student support services are provided for outside the classroom such as academic advising, financial assistance, peer support, etc. | 0 | 1 | 2 | 3 | | |
| 52. Policy and process is in place to support ADA requirements. | 0 | 1 | 2 | 3 | | |
| 53. Students are provided relevant information: ISBN numbers, suppliers, etc. and delivery modes for all required; instructional materials: digital format, e-packs, print format, etc. to ensure easy access. | 0 | 1 | 2 | 3 | | |
| 54. Program demonstrates a student-centered focus rather than trying to fit service to the distance education student in on-campus student services. | 0 | 1 | 2 | 3 | | |
| 55. Efforts are made to engage students with the program and institution. | 0 | 1 | 2 | 3 | | |
| 56. Students are instructed in the appropriate ways of communicating with faculty and students. | 0 | 1 | 2 | 3 | | |
| 57. The institution provides guidance to both students and faculty in the use of all forms of technologies used for course delivery. | 0 | 1 | 2 | 3 | | |
| 58. Tutoring is available as a learning resource. | 0 | 1 | 2 | 3 | | |
| 59. Students are instructed in the appropriate ways of enlisting help from | 0 | 1 | 2 | 3 | | 51 |

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## QUALITY SCORECARD FOR THE ADMINISTRATION OF ONLINE EDUCATION PROGRAMS

| EVALUATION AND ASSESSMENT | Not Observed | Insufficient | Moderate Use | Meets Criteria Completely | Score | Points Possible Per Category |
|---|---|---|---|---|---|---|
| 60. The program is assessed through an evaluation process that applies specific established standards. | 0 | 1 | 2 | 3 | | |
| 61. A variety of data (academic and administrative information) are used to regularly and frequently evaluate program effectiveness and to guide changes toward continual improvement. | 0 | 1 | 2 | 3 | | |
| 62. Intended learning outcomes at the course and program level are reviewed regularly to ensure clarity, utility, and appropriateness. | 0 | 1 | 2 | 3 | | |
| 63. A process is in place for the assessment of faculty and student support services. | 0 | 1 | 2 | 3 | | |
| 64. Course and program retention is assessed. Results of course evaluations are used as part of faculty/instructor performance evaluations. | 0 | 1 | 2 | 3 | | |
| 65. Recruitment and retention are examined and reviewed. | 0 | 1 | 2 | 3 | | |
| 66. Program demonstrates compliance and review of accessibility standards (Section 508, etc.) | 0 | 1 | 2 | 3 | | |
| 67. Course evaluations are examined in relation to faculty performance evaluations. | 0 | 1 | 2 | 3 | | |
| 68. Faculty performance is regularly assessed. | 0 | 1 | 2 | 3 | | |
| 69. Alignment of learning outcomes from course to course exists. | 0 | 1 | 2 | 3 | | |
| 70. Course evaluations collect student feedback on quality of content and effectiveness of instruction. | 0 | 1 | 2 | 3 | | 33 |
| | | | | **Perfect Score = 210** | | |

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