

EVALUATING DISTANCE EDUCATION:  
THE STUDENT PERSPECTIVE

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Doctor of Education

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by  
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The undersigned, appointed by the dean of the Graduate School, have examined the dissertation entitled

EVALUATING DISTANCE EDUCATION:  
THE STUDENT PERSPECTIVE

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Prior to submitting my application for the Educational Leadership and Policy Analysis doctoral program, I sat my family down to explain what would be required of me and them. Not only did they wholeheartedly agree that I should pursue my dream but offered to bear more responsibilities. They lived up to their promises so I had no choice but to live up to mine by completing the program. This dissertation is dedicated to my husband, Mike, and children, Audrey and Rayne Henckell for all the love, support, and encouragement they so freely gave.

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# EVALUATING DISTANCE EDUCATION: THE STUDENT PERSPECTIVE

M. Martha Henckell

Dr. I. Sue Shepard, Dissertation Supervisor

## ABSTRACT

Distance education can now be considered a viable means of providing higher education for many universities. In the study of *Evaluating Distance Education: The Student Perspective*, student opinions were sought to assist in providing information that will help institutions develop a distance education evaluation system by creating or choosing a proper student evaluation instrument and procedures that will provide valid and reliable answers in order to make applicable decisions. A survey was developed that covered topics that could assist in identifying the framework needed for the web-based evaluation system. The framework under study included: (a) evaluation design and format, (b) evaluation questions used and the manner in which they are constructed, (c) areas that should be emphasized, (d) frequencies of feedback and evaluation needed, and (e) the motivation required for valid and reliable responses. Items of importance to the student perspective were determined by calculating percentages of the student responses.

Discoveries of student perspectives were made on the realization of course differences for traditional and web-based courses, the frequency of evaluations experienced during the length of courses, the amount of emphasis placed on questions in traditional and web-based courses, whether or not traditional evaluation instruments were appropriate for evaluating web-based courses, what students ranked highest as to the use of evaluation data, what motivates or de-motivates students to provide valid and reliable evaluation responses, what questions should be added to web-based course evaluations,

whether or not additional feedback was requested during the course, whether students consider themselves as customers of the university, and whether or not students feel competent in the role as evaluator. In order for distance education evaluations to provide the necessary information that will assist distance education programs in meeting student needs and continue to be a viable delivery means of education for universities, this study advocates entire distance education evaluation system and instrument modifications. It further recommends the revision of evaluations used for blended courses to prevent the loss of valuable information.

## CHAPTER 1

### INTRODUCTION TO THE STUDY

#### *Background*

Since the late 1990s, higher education has been adversely affected by shrinking budgets. This decrease in funding has set off a series of concerns for students, as well as administrators and staff. Unfortunately, when universities and colleges fail to receive funding, several events take place: tuition must be increased to cover expenses or programs and services will suffer, faculty and staff productivity and accountability become scrutinized, and tenure becomes less permanent (Hiltner & Loyland, 1998). Part of the solution lies with increasing enrollments. Many universities and colleges have been able to improve their financial woes with the offering of distance education courses, which consists of courses delivered to off-campus sites via audio, video, or computer technologies (Distance Education, 2003). Distance education, or learning at a distance, is said to share many of the common characteristics of traditional, face-to-face courses, yet introduces new variables in teaching and education (Benigno & Trentin, 2000; Spooner, et al., 1999). Hall (1995) adds that the movement of distance education extends the traditional university structure. According to Urdan and Weggen (2000), revenues for web-based trainings were expected to augment coffers from \$550 million in 1998 to \$11.4 billion in 2004. John Chambers (1999), CEO of Cisco, was reported as stating “education over the Internet is so big, it is going to make e-mail look like a rounding error” (Singh & Pan, p. 302). Results from a study polling over 1,100 colleges and universities show that 53.6% of all schools concur that online education is critical to their long-term strategy (Allen & Seaman, 2004).

In a 1998 survey by the National Center for Education Statistics, an estimated 54,470 different distance education courses were offered with an estimated enrollment of 1,661,100 students; of these, 1,363,670 were enrolled in college level credit granting distance education courses (Lewis, et al., 1998; see also Miller & King, 2003). Allen and Seaman (2004) report that it was 2002 that found actual enrollments of over 1.6 million studying online. These figures demonstrate that distance education has indeed rapidly gained in popularity, can no longer be considered a fad, and is regarded as offering quality courses. In fact, most research has found students rate distance courses as high as traditional courses. In an article by Spooner, et al., (1999), student end-of-course evaluations of distance courses were compared with the evaluations from the same course traditionally taught and distance courses taught both on and off campus. Results from the study showed no difference in the ratings by students whether the course was a distance education course, taught on or off campus, or when compared to the traditional course. This demonstrates distance courses are proving to be a viable alternative to traditional face-to-face education instruction.

In order to ensure quality programs and courses, evaluations are conducted in higher educational settings. Evaluations provide important information to university administrators and instructors: information that can prevent programs or courses from floundering or failing to meet the needs and goals of students. What works for traditional courses in the way of instruction and evaluation will not work for distance education courses without modification. Traditional courses and distance education courses are dissimilar enough to warrant different student and administrative evaluation procedures.

Information provided in student evaluations can be used to help improve distance education courses. Along with student evaluations, student performance is often used to assess the success of a course (Tobin, 2004). One must realize though, performance information by itself does not provide a complete picture. A better test to gauge how well a distance course has prepared students might be to follow through with an investigation of how well the student performed in a subsequent course, in a traditional classroom setting. In the Dominguez and Ridley (2001) study, a comparison of grades was conducted for 50 students who had participated in an advanced course in a traditional classroom setting, but had completed the prerequisite course in either a distance or traditional learning environment. It was found that the distance students performed at least as well as the traditional students.

While evaluations are necessary, other information sources can provide direction without waiting until the end of the course. When teaching in a traditional classroom setting, the instructor receives instant feedback as to whether the students are able to understand the material being taught, the presentation method used is correct, or the workload is too much. Unfortunately with distance education courses, this is often not the case. Benigno and Trentin (2000) recommend conducting a course evaluation at the end of each module. A final examination of the course should include questions that cover course content, materials used, organizational aspects of course activities, technical aspects, and performance of instructor and support staff.

With an estimated ten million distance learners world-wide, distance education has definitely found a place in society (Tricker, et al., 2001). Although a variety of people choose distance education, it is commonly found that more mature students are attracted

to the conveniences these courses offer. Due to the fact that the more mature students are likely financing their own education and have greater demands on their time, the desire to ensure they are getting what they are paying for and the time expended was actually spent wisely makes this type of student more vocal. According to Tricker, et al., there are definite parallels between education and the service industries, and like the service industry, attention should be given to customer expectation and experience. Evaluations should be geared toward discovering where the expectations of students and course offerings fail to match.

As with any educational program, it is essential to recognize the needs of all those involved. Academic administrators are struggling with new decisions that pertain directly to distance education since these courses are typically more heavily enrolled by adult learners. Issues of concern include how to direct marketing efforts of distance education programs, profiling the typical distance education student, identifying the necessary resources needed, and deciding the proper methods for evaluating distance programs for quality and accreditation purposes (Tricker, et al., 2001). To provide answers to the administrative issues, Shea, et al. (2001) sent a survey to 250 institutions offering Internet-based programs. Results from the survey found the following: a variety of sizes of distance education programs, nontraditional students numbered greater than traditional, and faculty-student interaction used a wide variety of asynchronous and synchronous communication media. Each player involved with distance education had certain desires: students desired more interaction and technical support, faculty wanted more pay and technical support, and distance learning coordinators requested alternative forms of evaluation and additional staffing.

Distance education can be considered higher education's great white hope. Allen and Seaman (2004) state a 20% growth rate is anticipated for online enrollments. Even more impressive is this rate far surpasses the overall rate of growth for higher education. The increase in enrollments of distance education programs is helping to alleviate the financial constraints of many institutions. However, additional revenues are not the only benefit distance education is providing. With the focus on distance education and consequent discoveries of new uses of technology as a teaching aid, a new focus and evaluation of education in general seems to be occurring.

### *Conceptual Underpinnings for the Study*

There are simple terms to define distance education, and then there are more involved definitions. Typically, distance education is spoken in terms of its differences from courses taught in a more traditional manner. Distance education has several identifying characteristics that set it apart from traditional classrooms. Keegan described the following six characteristics, which were cited by Spooner, et al. (1999, p. 132):

1. Separation of the teacher and the student (i.e., separation vs. face to face, in the same room lecturing).
2. The influence of an educational organization (e.g., department or college) in the planning, preparation, or delivery of material (vs. a stand-alone professor responsible for content generation and delivery of course information). This component is not typically found in most on-campus courses.
3. Use of technical media. Historically, in most cases this has been print, but as technology advances, electronic media (computers, television studio delivery, and computer software presentation packages) contribute to a list a technical options.
4. Provision for two-way communication, which could be via a prearranged telephone conference with a single student or group of students at a central location at a prescribed time.
5. The possibility of an occasional seminar, which could allow students working independently, perhaps viewing prerecorded video tapes, receiving paper assignments via regular mail, or watching the lecture

via cable or satellite television in their own homes, to assemble as a group in the presence of the instructor of record for the class.

6. Evidence of a division of labor (i.e., a team of individuals involved in the preparation and delivery of course content). Members of the team might include a content expert (e.g., a faculty member in elementary education for a course offered from that program), graphic illustrators (who for all practical purposes have no knowledge of the content but bring it to life with related illustrations), and a television personality (i.e., an individual trained to work in the presence of the camera and the voice of a television or radio announcer to deliver the content).

After reviewing these six characteristics, it should be pointed out that a combination of the above list must be used in conjunction with the first characteristic to properly describe distance learning. Number two through six can also be used to describe events that are now often found in a traditional classroom. As Worley (2000) and Miller and King (2003) state, educational boundaries are changing due to educational technology. This change is taking place throughout the educational system, kindergarten through college (Worley).

While there are a variety of distance education programs, e.g., ITV (interactive television), television, video, computer-based/Internet (Clow, 1999; see also Shea, et al., 2001), distance education is also associated with correspondence study, home study, independent study, and external study (Spooner, et al., 1999). This type of learning has been practiced for many years (Spooner, et al.). For purposes of this paper, distance education will be used to identify formalized instruction provided to students and conducted at a distance (Distance Education, 2003). The term distance learning will refer to learning outcomes of distance education (Willis, 1993).

### *History of Distance Education*

By reviewing the longevity of distance education, it would be safe to state that distance education is here to stay. According to Willis (1993), distance education can be

traced to the 17<sup>th</sup> century in the United States based on advertisements for correspondence study via mail. Spooner, et al. (1999) report that correspondence study origins transpired during the latter part of the 19<sup>th</sup> century. Miller and King (2003) cite Moore and Kearsley (1996) and Klesius (1997) as agreeing with Spooner, et al. in regard to the 19<sup>th</sup> century occurrence but include Europe as the location of origin.

Regardless of when distance education began, it can be agreed that distance education is not a new phenomenon. What brings it to the forefront of educational interest is the highly sophisticated delivery and interactivity now available with distance education (Vrasidas, et al., 2003). Our great-great-grandparents may have had to rely on the mail to deliver coursework from a distance, but technology has definitely changed the face of present-day distance education delivery. As Marshall (2000) states, “It is only the current reliance on personal computer based delivery that is new” (p. 3).

Not only is the delivery of distance education different, but other things in the higher education environment have changed accordingly. To meet the needs of distance learners, faculty roles and course management are modified, and library and learning resources are accessed differently (Stella & Gnanam, 2004). As related by Stella and Gnanam, coursework consists of possible interfacing with highly interactive audio, video, and textual formats at the student’s own pace. While it must be recognized that these interfaces can be found in traditional classrooms, these interfaces are definitely witnessed at a less frequent rate in traditional environments and educational instructional activities rarely play to the tempo of the student.

### *Research-based Model*

Current educational models and measures are thought to reflect the social, political, economic and philosophical values of the period (Marshall, 2000). With the growing popularity of distance education, our educational era is portraying a definite shift in how higher education is being delivered. Distance education provides a convenience to students. Not having to attend classes in a traditional classroom setting allows students to balance other commitments such as family and employment. Continuing education is often required or expected for maintaining current employment positions, as well as increasing opportunities for advancement. Unlike experiences during the days of our parents, families more frequently find both parents employed to meet living expenses. The availability of courses taught at a distance also provides prospects for education that may otherwise have been excluded due to rural habitation.

Increasing popularity and offerings of distance education have increased the need for institutions to properly evaluate distance education programs and courses. Scanlan (2003) identified Twigg (2001) as making the following distressing observation, “Although there is a remarkable degree of congruence among these standards and while most include specifications regarding the evaluation of Internet-based education, none provide the actual measurement tools needed to conduct quality assessment,” (Scanlan, p. 1). Two main issues push for the proper evaluation of distance education. With all educational programs there are costs involved. With teaching at a distance, the high cost of technology and the staff involved becomes a pertinent factor worthy of institutional scrutiny. Pedagogy, as always, is a concern for institutions, but even more so with

distance education since the normal methods, emphasis, and delivery is modified (Regalbuto, 1999).

One method to ensure quality teaching and programs is to use student course evaluations. Current practice is to provide student questionnaires at the end of the course. Unfortunately the timing of this presentation is a difficult one for students, who are highly stressed and pressured with project completion, presentations, deadlines, and the preparation for exams (Paswan & Young, 2002). In other words, at this time in a student's life, the students experience quite a few regrets—such as wishing they had spent more time applying themselves to the course requirements—and are generally unhappy with the instructor for the demands that have and are being placed on the student's time. Regardless, providing students the opportunity to voice the student's view of the course aspects and instructional methods used to provoke students into an active role (Marshall, 2000).

Since pedagogy used in traditional classroom settings must be at least modified when developing distance education courses, it stands to reason traditional course evaluations must also be changed. Evaluations of courses should not be conducted with the philosophy that one size fits all. In the past, the foundation for evaluations has been more quantitative-based. To provide more viable data, the last 10-15 years have seen a swing toward collection of more holistic qualitative methods (Simonson, 1997).

Another swing witnessed in education is the view of students as customers. In the 9<sup>th</sup> century, when a teacher was available, groups of students would chose to sit in on the instruction. Since this education setting was entirely optional, the instructors would not have a following if they failed to provide instruction on the topics students were seeking

(The First Universities, Retrieved May 21, 2005, from <http://www.cai.cam.ac.uk/people/dmh/engineering/engineer031/cefirstuniv.htm>). Student evaluations are one of the cheapest and easiest means for evaluating teaching in universities and colleges (Emery, et al., 2003). Behind the scenes, though, there are other possible reasons data from student evaluations is collected. Philosophies that students are consumers and higher education is the product are evidenced in the use of student evaluations (Martinson, 2000).

#### *Statement of the Problem*

Distance education will never replace the traditional classroom but it does provide a suitable alternative. The convenience distance education affords students helps account for its rapidly growing enrollments. These larger enrollments make distance education programs very enticing to universities and colleges. In order to have a successful program, distance education courses must be evaluated using an effective tool. The most commonly used approach to assess teaching is an evaluation completed by students (Kahn, as cited by Laverie, 2002). Cross and Angelo (as cited by Laverie) recognize the importance of evaluations conducted by students since students are afforded the opportunity to see teachers at their best and worst times. Identifying the criteria or guidelines for an effective instrument and evaluation system for evaluating distance courses, with web-based courses in particular, will be the main focus of this study.

Although distance and traditional education share the same goals and objectives, distance education is dissimilar enough that it should not be evaluated by using the exact same questions or methods. Based on these differences and the need for both quantitative and qualitative evaluation, specific procedures are demanded (Benigno & Trentin, 2000).

Achtemeier, et al. (2003) make several important observations. Reliability and validity are questioned when institutions use student questionnaires that were designed for one educational environment and forced to fit one that has many differences. Results from this action increases the likelihood that important information will be missed and invalid information will appear. For many universities, distance education is a new venture and requires a great outlay of capital, making it essential that such programs reach their potential (Regalbuto, 1999). With proper evaluations of distance courses, administrators and instructors will have the guidance necessary in building successful programs.

An important argument against using the same instrument with online courses as is used in traditional courses was made by Griffin, et al. (2003). They stated failure to use the proper instrument across diverse settings may result in a hindrance to course improvement and thereby lowering the quality of higher education distance programs. Moore and Kearsley cited by Miller and King (2003) and Simonson (1999) as describing distance education as essentially dissimilar from the face-to-face classroom, entailing a change in instructional methods used. Effectiveness of online teaching must be assessed to ensure quality distance education. Regalbuto (1999) reasoned the expense of technology and staff involved with distance programs, as well as pedagogic concerns, warranted the need for the appropriate evaluation tool. Yet, according to Berge and Myers and Clark, as cited by Achtemeier, et al. (2003), there should not be pedagogic concerns since there is little if any pedagogical differences in instructional design.

While only a limited amount of research was found to address whether traditional course evaluations were appropriate to use for evaluating distance courses, even a smaller amount was found regarding student beliefs. In a study conducted by Holcomb, et al.

(2004), 309 university students, of which 68% were graduate students, were asked whether course evaluations used for traditional courses were appropriate for courses taught via distance education. Surprisingly, 92% believed traditional course evaluations were the correct tool for evaluating Web-based courses, while only 8% disagreed. Students that deviated from the norm considered the evaluation focused too much on the instructor rather than the course and that more questions directly relating to distance education factors would have improved the assessment. Even though the researchers felt the traditional evaluation form was successfully used for assessing online courses, they concluded additional studies were necessary. Regalbuto (1999) found it difficult to understand how the use of the traditional evaluation for online course evaluation could be considered successful. Regalbuto recognized the evaluation of online learning as not only complex and understated but also advised that learning is not the only area one should evaluate. Data addressing the different environmental aspects would not be included in a traditional course evaluation. Valuable information that would guide educators in regard to assessing how well the different needs of distance learners were satisfied would be completely missed. In addition, Holcomb's article unfortunately failed to go into detail on the information provided to the students prior to the survey. The main purpose of a course evaluation is to inform faculty and administration. The responses to the question posed may have reflected that the student's needs were met by the survey—a form was filled out that described the course, but this does not mean the faculty and administration's needs were fulfilled by the data collected on the evaluation.

Willis (1993) and Regalbuto (1999) both acknowledged the need for modifying traditional evaluation processes to better fit the distance delivery environment. The true

test of whether a different evaluation tool should be used for distance education weighs upon the differences between the two types of education. For only slight differences, the gain would be only a minimum amount. For greater differences, such as change in emphasis; change in delivery; change in pedagogy; changes that all affect learning, a demand for a different evaluation tool is imperative.

The University System of Georgia recognized the need of an effective tool to assess successful teaching and learning in an online environment. As a result, Achtemeier, et al. (2003) conducted a study that explored how well online course evaluation instruments from 13 Georgia institutions included principles found in Chickering and Gamson's *Seven Principles for Good Practice in Undergraduate Education* and *Principles of Effective Teaching in the Online Classroom*. Between the two books 18 principles were found to be important to teaching and learning, yet only 8 were found in Georgia online evaluation instruments. Achtemeier, et al. pointed out that Palomba and Banta, who wrote *Assessment Essentials*, would consider this a failure since the theory of what constitutes best practices was not present in the evaluations. As a result of this study, the University System of Georgia revised their evaluation instrument for online courses.

Teachers adapt course instruction according to the students present in their face-to-face classrooms on a daily basis. Unfortunately, the teachers do not have the opportunity to glean this information in distance education settings and often fail to adapt their online pedagogy based on the students enrolled. While this information could be collected through communication exchanges throughout the course, a quicker method

would be to conduct a pre-course characteristic-type evaluation of the student.

Information is better learned when related to the learner's experiences.

Pre-course evaluations of students have also been suggested by Palloff and Pratt (as cited by Miller & King, 2003) and Benigno and Trentin (2000). Palloff and Pratt (2001) felt the first class period of each distance education course should be held face-to-face. This would give the instructor an opportunity to provide the information generally shared on the first day of a traditional class: course requirements, objectives, assessments. In addition, technology use and support could be discussed. Unfortunately this suggestion is not always feasible and this mode of thinking must be changed. Students that often enroll in distance education do so because attending courses on campus is not an option (Spooner, et al., 1999). The solution for this problem is simple—rely on technology to get the same benefit. An online chat room could be substituted for the face-to-face meeting (Holcomb, et al., 2004). If technology is an issue, an informational packet could be mailed to the students. The pre-evaluation of the student could suffice for providing the missing information on the students as individuals (Benigno & Trentin, 2000; Clow, 1999; Schamber, 1988; Vrasidas, et al., 2003). In fact, the pre-evaluation data could be shared among the students online so students would have the opportunity to familiarize themselves with fellow classmates and begin building a virtual community. In a successful distance education course, one of the most often-used pedagogical approach employed is the establishment of a collaborative community of learners (Bourne et al.; Brown; Brown and Campione; Hiltz & Benbunan-Fich; and Jonassen et al.; as cited by Miller & King, 2003; see also Carr-Chellman et al., 2000).

According to the research, traditional evaluations do not fit the distance education model. Scanlan (2003) states a flood of guidelines and standards are being developed to ensure quality but unfortunately, the accurate tool for quality assessment has not resulted. A new evaluation system is needed that uses a different model, including new times and ways of collecting the data. In order to achieve the goal of validly and reliably evaluating an online course, the actual measurement tool must address the differences distance courses impose.

While distance education has found a permanent place in higher education, very little research has been conducted to ensure it remains a viable means of providing an education. It has not been suggested the traditional student evaluation be scrapped when considered for use in distance education courses; instead, research recommends alterations and amendments (Holcomb, as cited by Holcomb, et al., 2004; see also Shuey, 2002, and Willis, 1993). This study will be directed toward developing effective evaluation procedures which would include when and how student evaluations should be conducted and what and how questions should be asked. Comparisons of current course evaluation procedures and schedules and those discovered during this study will be performed. Results of the comparison and a conclusion will be presented, along with implications for further research.

### *Purpose of the Study*

Distance education is one of the newest players on the field of education. Due to its recognized importance to higher education, every facet is scrutinized. Institutions are interested in learning if the correct teaching methods are used, whether or not proper use of technology is occurring, and if students are truly learning as well as they would in a

traditional classroom. The purpose of this study is to assist in providing information that will help institutions develop a distance education evaluation system by creating or choosing a proper student evaluation instrument and procedures that will provide valid and reliable answers in order to make applicable decisions. In this case, the adage, “what you don’t know, can’t hurt you” is definitely a misnomer. Information will be gathered on web-based courses in particular. This information may be useful when looking at other distance education type courses. It is important to note possible improvements to traditional evaluation systems would also be a possible result of this study.

The purpose of this study is to glean a greater understanding of: (a) differences between traditional and web-based courses, (b) web-based courses student and teacher characteristics, (c) the role of technology, (d) barriers of web-based courses, (e) policies under development, (f) recommended improvements for web-based courses, and (e) current evaluation practices of web-based courses.

Eleven substantive theoretical research questions were created to direct this study and are listed below. Bogdan and Biklen (1998) define substantive theoretical research questions as “. . . focused on the particular setting or subjects you are studying,” (p. 160). Discoveries made, as a result of the use of these questions, will then be compared to the formal theoretical issues in the findings section of this paper.

### *Research Questions*

1. What differences are recognized by students regarding the organization, engagement, modes of monitoring, and evaluation of web courses versus traditionally taught courses?

2. What percentage of students believes the student evaluation instrument used for traditional classrooms is the appropriate tool for student evaluation of web courses?
3. What do students perceive as the appropriate use of evaluation data?
4. What do students perceive as adequate motivation for providing valid and reliable responses for student evaluations?
5. What key questions are perceived to be valid and useful for evaluating web courses?
6. Other than end-of-course student evaluations, what additional course feedback is currently required of students that would provide course assessment information for web courses?
7. If additional student feedback, other than end-of-course student evaluations, is a part of the distance education evaluation system, when should it occur?
8. In order to maximize the use of feedback provided from student evaluation instruments, when does the student perceive the request(s) for information should occur?
9. What media is preferred by students for the student evaluation of web courses?
10. What percentage of students perceives themselves as customers?
11. Do students feel competent in their ability to evaluate a course?

#### *Limitations, Assumptions, and Design Controls*

With the first form of distance education, correspondence courses, the instructional methods used were relatively simple and relied on text. Interest and

enrollments for correspondence courses held little interest or potential for institutions. Advancements in technology have drastically changed the way distance education is now provided and institutions are scrambling for information regarding this phenomenon. “Information technology and the use of electronic systems have changed the world at a rate never before experienced in history. The effects of this explosion were immediate and obvious within education” (Spooner, et al., 1999, p. 138). This explosion has resulted in providing “insufficient time and inadequate numbers of students and courses to rigorously evaluate distance education or the impact of the technology” (Worley, 2000, p. 95). Once upon a time, Worley’s statement was probably correct, but with over 50,000 different distance education courses offered and enrollments of 1.6 million students recorded in 1998 (Lewis, et al., 1998; see also Miller & King, 2003), by 2000, ample numbers of both courses and students were available for rigorously evaluating distance education.

The primary limitation of this study is the lack of research available that provides information on evaluating distance courses. Student feedback on the entire evaluation process of distance courses will be pursued to assist in increasing evaluation validity. Information gathered will be used to establish criteria for the development of student evaluations and an evaluation system for distance education. The use of an opinion survey has some limitations. In Phipps and Merisotis’ (1999) review of original research on distance education published from 1990-1999, it was stated while they did not encompass every study, they did capture the most prominent and found the lack of inclusion of validity and reliability for the instruments used. Phipps and Merisotis stated that for sound educational research the proper measurement of learning outcomes and/or

student attitudes must be used. Seeking student opinions via student evaluation of courses, whether traditional or distance courses, is one that lacks consensus among educators. Adams (1997) considers students as lacking in critical thinking skills, therefore unable to critically evaluate their instructors. On the other hand, it has also been stated that while the use of student evaluations cannot perfectly measure a faculty member's performance, the results can produce a meaningful and useful approximation (Anonymous, 2000). Looking at the constructivist approach to learning, Starr-Glass (2005) suggested it is vital to obtain evaluative feedback in order to appreciate learning experiences from the course participants.

How students learn and whether students can receive a quality education when separated from the instructor have yet to demonstrate total agreement. Phipps and Merisotis (1999) recognized in their review of the literature that limitations are evident in understanding how the learner, the learning task, and a particular technology interact. Robson (2000) adds to Phipps and Merisotis' statement with the comments that learning theories are not static and have developed and changed with the increased use of technology in education.

Since student evaluations are used by 75% of colleges and universities to assess teaching effectiveness (Seldin, as cited by Laverie, 2002), it is understood there is value in using these instruments. It is assumed, based on the research thus far, most institutions are using the same student evaluation instrument for distance courses as is used for traditional classrooms. After reviewing the evaluations used for the online environment at 13 Georgia higher education institutes, Achtemeier, et al. (2003) surmised the instrument used was likely taken from traditional course settings and applied directly to evaluate

computer-mediated instruction. Without using an instrument specific to the education environment, Achtemeier, et al. believed irrelevant questions and erroneous information may be introduced to the evaluation process. The importance in using the correct instrument is demonstrated in Benigno and Trentin's (2000) findings:

Clearly, identifying and understanding the elements to evaluate is more complex in distance education for general (macro) elements (evaluation of technology, of course and materials, of the cost/benefits ratio) as well as for specific (micro) ones (evaluation of participation, goal achievement, evaluation of individual learning, etc.). Without a doubt, there are more elements to take into account in the evaluation of distance education when compared to face-to-face learning. (p. 259)

In this study, it is implicit that working with students during the development of the evaluation system is the key to validity of the student evaluation instrument.

Unfortunately, access to these students is difficult. The second major limitation of this study is the lack of cooperation of distance education administrators to allow others to survey their students. Due to the popularity of this subject, higher education students frequently tend to choose the area of distance education to conduct research for their papers, thesis, and dissertations. It is felt distance education students are being overly surveyed. For this reason, this study will be limited to seeking responses from students that have completed one or more web courses from only one state university that has agreed to participate.

#### *Definition of Key Terms*

As is true when learning any new material or information, learning is enriched by understanding the terms used. By providing definitions of the key terms below, it is hoped the reader will have a better perception of distance education and the evaluation process.

*Applied research.* Research efforts which seek findings that can be used directly to make practical decisions about, or improvements in, programs and practices to bring about change with more immediacy (Schein, as cited by Bogdan & Biklen, 1998).

*Asynchronous.* Distance education in which the instructor and the students are separated both by time and geography (Holcomb, et al., 2004).

*Basic research.* Findings add to our general knowledge with little or no concern for the immediate application of the knowledge produced (Bogdan & Biklen, 1998).

*Behaviorism.* Behaviorist designs often call for students to work on new data/ideas/skills at each session (Marshall, 2000).

*Blended education courses.* Courses having between 30% and 80% of the course content delivered online (Allen & Seaman, 2004).

*Constructivism.* Constructivists believe that “the knower, on the basis of his inherent activities and organization, actively participates in the construction of a known reality” (Reese & Overton, as cited by Marshall, 2000, p. 4).

*Distance education.* Education or training courses delivered to remote (off-campus) sites via audio, video (live or prerecorded), or computer technologies, including both synchronous (i.e., simultaneous) and asynchronous (i.e., not simultaneous instruction) (Distance Education, 2003).

*Distance learning.* The intended instructional outcome, i.e., learning that takes place at a distance (Willis, 1993).

*Formative evaluation.* Student diagnostic feedback, both positive and negative, to faculty members about their teaching and areas in need of improvement (Spencer & Schmelkin, 2002; see also Chen & Hoshower, 1998).

*Gaming.* Faculty eliminating the most challenging material from a course or from the exams with the intention of generating higher student ratings (Martin, 1998).

*Hybrids.* Site-based and distance-based learning environments intermingled (Twigg, 2001).

*Online courses.* Course having at least 80% of the course content delivered online. Typically has no face-to-face meetings (Allen & Seaman, 2004).

*Paradigm.* A set of assumptions, concepts, values, and practices that constitutes a way of viewing reality for the community that shares them, especially in an intellectual discipline (Retrieved May 22, 2005 <http://dictionary.reference.com/search?q=paradigm>).

*Pedagogy.* The art, science, or profession of teaching (Retrieved May 22, 2005 <http://www.m-w.com/cgi-bin/dictionary?book=Dictionary&va=pedagogy>).

*Summative evaluation.* Provides administrators with evaluative data used in personnel decisions such as tenure and promotion (Spencer & Schmelkin, 2002; see also Chen & Hoshower, 1998).

*Synchronous.* Distance education where the instructor and students meet at the same time, but are geographically separated (Holcomb, et al., 2004).

*Traditional courses.* Course with no online technology used—content is delivered in writing or orally (Allen & Seaman, 2004).

*Web courses or web-based training.* A generic term for training and/or instruction delivered over the Internet using a Web browser, includes static methods—such as streaming audio and video, hyperlinked Web pages, live Web broadcasts, and portals of information—and interactive methods—such as bulletin boards, chat rooms, instant

messaging, videoconferencing and discussion threads (Retrieved May 22, 2005  
<http://www.webopedia.com/TERM/W/WBT.html>).

*Web facilitated.* Course which uses web-based technology to facilitate what is essentially a face-to-face course. Uses a course management system (CMS) or web pages to post the syllabus and assignments. The course content delivered online varies from 1-29% (Allen & Seaman, 2004).

### *Summary*

Moving from text-based correspondence courses to technology-based courses was quite a leap for distance education. This timely occurrence fits well with today's fast paced society, the economic times we live in, and the philosophy that learning should be life-long. Unfortunately, the speed at which these changes in distance education happened has left educators with insufficient data to maximize the distance educational experience. Students can be our best resource in our search for information since they are the most important party involved. The problem lies in getting the most reliable information from these readily available sources.

In Chapter 2, a review of current literature will be provided. To learn more about distance education programs, a look at the distance learning students, teachers, and technology will be used to understand characteristics involved with successful distance education experiences. A comparison of the key elements for traditional, distance education, and blended courses will be conducted. Barriers to distance education and opinions on its effectiveness and benefits will be identified and recommended improvements will be listed.

An in-depth review of evaluations will also be provided in Chapter 2. Appraisal of the purpose and intended use of evaluations will occur. The entire evaluation system will be analyzed in order to guide the development of criteria for future systems to be used with web courses. Student, faculty, and institution perspectives on student evaluations will be examined to identify what is perceived as problems with existing student evaluations. Finally, an opportunity to carefully look at the design of student evaluations will be provided, allowing suggestions for improving current design, formats, and reliability. Chapter 3 will provide details on the size of the population and sample, the methods engaged in the data collection and instrumentation, and the various statistical tools and techniques used for this study. An in-depth review of the survey data will occur in Chapter 4, with the culmination of a data analysis. Chapter 5 will bring this study to a close with a presentation of the association between the literature reviewed and the survey data collected, conclusions, implications, and future research.

## CHAPTER 2

### REVIEW OF RELATED LITERATURE

#### *Introduction*

It is customary in higher education for students to evaluate traditional course instructors and activities each semester and this ritual has carried over to distance courses. While this practice has value, there is a great deal of dissention regarding just about every factor involved with data collected via student evaluations. Reliability, validity, usefulness, and the presence or absences of confounding factors are only a few of the arguments against the use of these instruments (Paswan & Young, 2002). These very same arguments actually emphasize the need to lay aside the traditional course evaluation and develop a different tool for student evaluation of distance education courses. Basically, evaluating a course with the same student evaluation tool developed for traditional courses and using it for evaluating distance courses could be compared to using a garden hoe to rake leaves—quite a few leaves will be missed with each swipe.

Surprisingly, little time or effort has been directed toward the development of the proper, yet different, instrument for evaluating distance education courses. In part, this may be due to the rapid growth of distance education. Once recognized as having only a very minor role in education, distance education is now viewed to be an ordinary choice of instructional delivery in higher education (Dwyer & Li, 2000). In fact, it was estimated that by the end of 2002, 85% of colleges and universities would offer distance education opportunities (Dennis, 2003). Allen and Seaman (2004) report that since 2002, public institutions offering online courses have remained at a rate of around 90%. In order to improve the instrument used for student evaluation of web-based courses, criteria for a

better tool must be developed. Related current literature will be analyzed on the: (a) purpose of evaluation, (b) design of evaluation system, (c) intended use of student evaluations, (d) perspectives of those involved in student evaluations, (e) learning theories, (f) effective teachers, (g) student evaluation design issues, and (h) improving evaluations.

### *Distance Learning*

Physical separation of the student and instructor for the duration of the course is one of the key identifiers for distance education. Lectures, tutorials, and for the most part, student assistance or support, is provided through electronic media (Yellen, 1998). Yellen failed to mention another important component involved; distance education often possesses the characteristic of physical separation of the student from other students.

Shea, et al. (2001) felt their study of 250 institutions validated earlier study findings on characteristics of distance education programs. They agreed that there was no uniformity in the size of distance education programs; these programs were directed at capturing the nontraditional student; and faculty and student interacted by using several different forms of asynchronous and synchronous communication media.

Distance education is heavily entrenched in technology. For communicating alone, there are a variety of methods. The most popular and common methods of communication used is electronic mail (e-mail); bulletin board systems (BBS); Internet [using chat programs]; telephone-based audio conferencing; and video conferencing with 1- or 2-way video and 2-way audio via broadcast; and closed-circuit or low power television (Sherry, 1996). Of the choices for course delivery, ITV (interactive television), television, video, and computer-based (web-based/Internet) (Clow, 1999; Shea, et al.,

2001), web-based courses have shown to be the least expensive for institutions to provide (Carr-Chellman et al., 2000). Web-based courses have also experienced the greatest growth and are “the primary means by which colleges and universities provide distance learning” (National Center for Education Statistics, 2003, Scanlan, 2003, p. 1), which some attribute to the cost incurred in an online course versus a video teleconferencing course (Draves, as cited by Holcomb, et al., 2004).

### *Trends*

Trends provide projections on what is expected for the future. Many program decisions are made based on this invaluable information. In order for administrators to make the “right” decisions, the study of trends on all facets of distance education is required.

*Institution Involvement.* The Internet has grown at an expeditious rate. Consider that 38 years passed before it reached 50 million users (Shotsberger, as cited by Miller & King, 2003) and television was only slightly quicker, taking 30 years. The World Wide Web, on the other hand, earned that honor in only four years (Miller & King). Technology advancements are at the heart of the increased popularity and demand of distance education (Holcomb, et al., 2004; Miller & King, 2003; Spooner, et al., 1999; Worley, 2000). Phipps and Merisotis (1999) envisioned a continued growth, while Allen and Seaman (2004) reinforced this theory with their statement that there is no indication of enrollments leveling off.

Every one is jumping on the band wagon. A market survey administered in 2000 showed 94% of all colleges were either offering (63%) or planning to offer (31%) distance education courses (Twigg, 2001). Post-secondary schools are not the only ones

engaged in distance education. Business and industry are also pursuing what appears to be a lucrative enterprise (Miller & King, 2003). This should come as no surprise since distance education appears to be going nowhere but straight up.

*Student Trends.* Ludlow (1994) recognized the changing demographics and needs of students in higher education. He believes universities have increased their focus on recruiting students over the age of 22 since the mid-1970s. Some institutions believe distance education is the main attraction in drawing non-traditional student enrollments (Ludlow, as cited by Easton, 2003). Worley (2000) also agreed with Ludlow's statement but added that much of the growth of distance education has been fueled by those employed professionally.

Traditional educational environments, for the most part, fail to provide the flexibility necessary for those with commitments to family and work. Consequently, adult learners are expounded to be one of the fastest growing groups enrolling in higher education (Worley, 2000), and to some extent, this growth is considered due to the availability of distance education (Boettcher, 2006). From now until 2013, according to the National Center for Education Statistics (NCES), public and private degree-granting institutions are expected to increase enrollments by 18-20% (Projections of education statistics to 2013, October 2003. Retrieved May 22, 2005 from [http://nces.ed.gov//programs/projections/ch\\_2.asp#2](http://nces.ed.gov//programs/projections/ch_2.asp#2)). Postsecondary middle alternative enrollment projections by NCES also showed that enrollments for students 18 to 24 years old are expected to increase by 22 percent between the years of 2000 and 2013 and 2 percent for students who are 35 years old and over.

Due to the popularity among non-traditional students, universities and colleges have hit upon a winner with distance education courses. Now institutions are able to offer more flexible, customized programs delivered at a distance that are proficient at meeting both the education needs and lifestyles of students (Worley, 2000). According to Boettcher (2006) a trend in distance education will be program and course focus on “updating knowledge and skills, building perspectives, contextual problem solving, and networking” (p.102), and instead of grades, institutions will “shift to competency-based outcomes” (p. 102). It was predicted by Boettcher that faculty have experienced a role change, with faculty becoming more specialized, taking a singular role as content developer, course and program designer, technology or instructional representatives, or actually providing the delivery (Worley).

*Distance Education Courses.* Since 1998, enrollments of distance education courses, regardless of the method of delivery (i.e., ITV, Web-based, etc.), have grown from 1.4 million to almost 3 million (National Center for Education Statistics, 1997, 2003; Scanlan, 2003; Shea, et al., 2001). Students are given plenty of opportunity to study at a distance. Higher education students enrolled during the 2000-2001 academic year were given a choice of 127,000 distance education courses (Waits & Lewis, 2003). At least 14% of all students enrolled in degree programs are expected to be distance learners (Scanlan, 2003). Even more impressive is the fact that Draves (as cited by Holcomb, et al., 2004) anticipates “that 50% of all learning (by education institutions, business, and industry) by the year 2010 will be done at a distance” (p. 2).

*Web-based Courses.* Web, web-based, computer-based, online, Internet, or Internet-based, are interchangeable names describing the same type of distance education

course. Regardless of the name used, these courses take the lion's share of distance education offerings. The figure released in the 1999 *Online Distance Learning in Higher Education, 1998-2000* report boasted an estimated 2.2 million college students were expected to be enrolled in web courses in the United States (Stella & Gnanam, 2004). Fall 2003 actually saw just over 1.9 million students enrolled in online courses (Allen & Seaman, 2004); proving the 1999 estimate only slightly fell short of expectations. For 2004, online enrollment growth was expected to increase at an even faster rate of 24.8%, up from 19.8% in 2003. Allen and Seaman believed fall 2004 online students would number a whopping 700 thousand more than the fall 2003 actual enrollment—to equal a student body of 2.6 million. Student satisfaction leads to higher enrollments. It is no wonder online enrollments have been growing by leaps and bounds when schools have been able to report 40.7% student satisfaction and 56.2% neutral (Allen & Seaman, 2004).

*Reasons for Popularity.* Regardless of the debate on whether distance education is quality education (Institute for Higher Education Policy [IHEP], 1999; Rahm & Reed, as cited by Shea, et al., 2001), the immense popularity of distance education can be contributed to higher education costs, lifestyle requirements, a large population of adult learners, and competitive employment pressures (Arenson, 1998).

In an informal study, Christensen, et al. (2001) found that students choose to enroll in distance education courses for one or more reasons. By participating in courses at a distance, expenses can be reduced or limited. Travel expenses to campus or dormitory rental and meal plans can be avoided. Fees for recreational centers or sport activities are often not assessed when strictly enrolled in distance courses. Students with

family or work responsibilities command flexibility in order to meet lifestyle requirements. Also occurring in the decision making process is campus security and safety concerns.

### *Benefits of Distance Education*

Fortunately for some students, distance education courses have resulted in an effortless switch from traditional classroom learning (Oravec, 2003). The change in instructional delivery methods, communication with the teacher and other students, and greater use of technology has not presented a challenge. Even when distance education was considered more difficult than face-to-face courses, sometimes the benefits outweighed the costs. Take for example the rural, under-served learner. Distance education may have been their only alternative for receiving an education (Seay & Chamberlain, 2001; Spooner, et al., 1999).

According to Smith (as cited by Grandzol, 2004) and Christensen, et al. (2001), students find many features of distance education to like; for example: (a) convenience, (b) flexibility, (c) accessibility, (d) participative style, (e) absence of labeling, (f) written communication experience, and (g) experience with technology. Oravec's (2003) comment, the opportunity to enroll in courses not available (or at least not available when needed) at the student's own institution, covers an important area not listed by Smith and Christensen. Another feature for online classes noted by some students was the approachability of their instructors (Kroder, et al., 1998).

Not only students find distance education appealing, but faculty and institutions also can be considered members of the DE (distance education) fan club. Faculty members also appreciate the same features preferred by students and have the added

benefit of possible job related advantages resulting from newly gained skills (Grandzol, 2004). Institutions have enjoyed enrollment increases and have become aggressive competitors in the marketplace (Wagner & Thompson, 1997). All three (institutions, faculty, and students) share the benefits of reduced classroom sizes and have witnessed institutional transformations due to distance education programs (Eastman & Swift, 2001). Even traditional students have benefited from this newer mode of educational delivery when faculty members take their online learning activities back to their regular classrooms (Dennis, 2003).

Spooner, et al. (1999) asserted not only did distance education work, it provided the institutional benefit of serving more people with the same resources, yet Phipps and Merisotis (1999) contradicted this statement. Phipps and Merisotis mention probable purchase requirements and expenses of two-way interactive video and a variety of other technologies dependent upon the types of delivery provided. These expenditures do indeed result in supplementary resources. Both groups failed to mention the possible expense of additional personnel considered necessary for the management of the innovative technology used or the newly created distance education positions which become apparent as distance programs expand (Regalbuto, 1999; Shea, et al., 2001).

#### *Differences Between Traditional and Distance Education Courses*

While the goal is the same whether teaching in the traditional classroom or at a distance, there are unique characteristics for each method. This uniqueness must be identified before judgments can be made as to whether or not the traditional evaluation instrument is appropriate for use in evaluating distance courses.

### *Key Elements of Traditional Courses*

Traditional education is quite a few years older than distance education. Yellen (1998) claimed the traditional learning setting has survived for at least a few thousand years. Farmer (1999) asserted the beginning of higher education has been traced to the 300-400 BC era, reinforcing Yellen's statement. In earlier times, each civilization had its own use for higher education. Mesopotamia and Babylon citizens looked to improve record keeping. The Romans, on the other hand, were interested in providing education to politicians or government employees. The Greeks differed from the others and were primarily concerned with providing a more philosophical society (Farmer). Today's higher education provides opportunities that will fulfill all three purposes plus more.

Similarities between traditionally taught courses and distance courses abound, yet that does not signify a lack in differences. Yellen (1998) described traditional students as students learning in the traditional manner; more specifically, these students are instructed by means of "lecture or discussion in a centralized location" (p. 216). In the traditional classroom, interactions between the student and instructor, extraneous learning materials and activities (i.e., chalk or white board use, video presentations, text books) can be observed (Tobin, 2004). Bruffee (1999) believes that one activity not found in traditional classrooms is collaboration. He claims this, in part, is due to the failure of teachers to realize collaboration as valid and the misconception that it only promotes plagiarism. Bruffee also described the college and university classroom as a community, complete with its own unique culture.

Worley (2000) makes the bold statement that all education can be considered distance education. She based her comment on the fact that students who spend three

hours in a classroom per week, also spend or are expected to spend an additional three hours “reading, researching, preparing assignments, and perhaps conferring with other students” (p. 94). Another example to reinforce her theory is the reliance of asynchronous communication between student and faculty or student and students using e-mail. Gone (or going) are the times of in-person visits to the instructor’s office.

Not only do traditional classrooms appear to be changing, traditional education is changing. More and more students are enrolled in both traditional and distance courses (Farrington, as cited by Oravec, 2003). Mixed enrollments have stimulated the comparison of the two types of courses, especially in areas of value and appropriateness (Oravec). This result definitely warrants attention by institutions since student expectations in the traditional classroom are likely changed. Pressures on faculty are now of a nature or to an extent not previously encountered. Oravec sees the possibility of students seeking in the traditional classroom what is missed during their distance learning experience (i.e., absence of social interaction). On the other hand, faculty should be alerted to the possible discontentment of students with the typical instructional format and materials found in most traditional classrooms.

#### *Key Elements of Distance Education Courses*

Some of the same reasons why distance education is considered so popular are also accredited with creating a better learning environment, better than even face-to-face, according to Draves (as cited by Holcomb, et al., 2004). Draves’ list includes:

1. Opportunity for the student to learn during his/her own individual “best” time.
2. Pace for learning is set by the student.
3. Learning occurs faster.

4. Personal interaction with both the teacher and other students can occur with greater frequency.
5. While working online, there are more topics and subjects to access readily.
6. Classroom participants may experience greater diversity by interacting with students that could be residents of anywhere in the world.
7. Online opportunities give the students access to the foremost authorities and experts.
8. Distance learning has been found to be less expensive and more accessible.
9. Online resources of information abound.
10. Online classes create virtual communities.

It would be justifiable to include as number 11 in Draves' list Kroder's (1998) observation that distance education provides more quality time with the professor.

While the 11 items listed above are positives, distance education has its share of negatives. Being separated from the students creates a new set of problems for faculty. When face-to-face, communication cues and clues are present, faculty can assess when understanding or failure to understand takes place (Willis, 1993; Phipps & Merisotis, 1999). These visual hints are very useful tools when conducting a class and depending upon the type of distance education course, may be missing.

Distance education is provided in either a synchronous or asynchronous manner. Synchronous distance courses more resemble traditional courses than asynchronous (King, et al., 2001; see also Miller & King, 2003). Although geographically separated, the instructor and students meet at the same time. This is conducted by interactive television or during chat sessions (Holcomb, et al.). As was reported by NCES (as cited

by Miller and King, 2003), the synchronous mode of distance education has become stationary, while asynchronous courses have tripled. One possible reason for the substantial growth could be attributed to the characteristics of asynchronous courses.

The preferred type of distance courses for the institutions, faculty, and students is the asynchronous. Institutions show favoritism to asynchronous, particularly web-based, courses due to the lower cost to provide (Draves, as cited by Holcomb, et al., 2004). Faculty enjoy fewer constraints on their time since meeting times are not synchronized. Students also benefit from the convenience asynchronous courses offer. According to Hiltz (1997), “time spent in class” and the location of the “classroom” are solely determined by the participants.

Asynchronous distance education is recognized for the great advantage of allowing time for reflection before responding (Bonk & Cummings, 1998), thereby encouraging critical thinking. The faster paced, time constrained traditional classroom fails to provide the same opportunities for reflective thinking. Without the critical thinking component of online courses, then the course becomes more of a “correspondence” course, making an instructor unnecessary (Howland & Moore, 2002).

Easton (2003) stated distance instructor roles are often confusing and ill defined, in addition to being untested. The ambiguous role often leaves faculty feeling as if they are flying in an uncertain environment. It is questionable, especially when considering the rapid rate of distance education growth, that faculty are adequately prepared for teaching at a distance. For instance, it is quite possible new instructors to distance learning were not made aware of the need “to frame the course and supplement student interactions by providing resources and opportunities” (Knowlton, 2000, p. 11). Knowlton went on to

add distance educators should be charged with the following tasks: Socratic questioning, summarizing, clarifying, and helping students connect their ideas with course theory.

Research in the area of distance education places different emphasis on each of the issues. Palloff and Pratt (as cited by Miller & King, 2003) felt it was more imperative to consider the need to alter pedagogical methods used in distance learning situations. Most traditional classrooms revolve around the lecture format but Regalbuto (1999) suggested this format fails to make the most of the online learning's full potential. Knowlton (2000) recognized that "from a pedagogical perspective, a teacher-centered online course is an oxymoron in that it removes the need for the professor. In the online classroom, 'lectures'—the very essence of teacher-centeredness—come in the form of pre-designed text" (p. 9). Without the lecture format, course materials become a substitute for information typically provided by the instructor in the traditional classroom. Tricker, et al. (2001) stressed students must recognize this change from the norm at the very beginning of their online experience. New emphasis is placed on the need for quality course materials since the instructor is not present to qualify the information.

The very nature of the distance education environment demands modifications in pedagogy. Yellen (1998) pointed out that modifications require more than just changing the delivery method. He recognized the need for instructors to use different methods when providing learning materials. Instead, Dwyer and Li (2000) addressed the need for adjustments to visualization, user friendliness, interaction, feedback, and evaluations. Miller and King (2003) cited Moore and Kearsley and Palloff and Prait as stressing the instructors' potential for failure if the only transitioning made from their traditional course pedagogy is accomplished by placing their notes and PowerPoint presentations on

the web. In the American Federation of Teachers report, “Distance Education: Guidelines for Good Practice” (2000), it was stated:

Faculty members developing distance education courses should approach course design—curriculum planning, class projects, visual aids, library materials and student interaction—not in terms of replicating the traditional classroom, but in terms of maximizing the potential of the medium that will be employed. (p. 9)

Facilitator is a title that adequately describes the role of faculty in a distance learning setting (Kochtanek & Hein, as cited by Easton, 2003). Kochtanek and Hein mentioned the need for faculty to direct information at the students, but instead, charged faculty with creating an environment where students take existing knowledge and create their own learning paradigm. This is what the experts say occurs or should occur in the traditional classroom as well.

Robson (2000) also agreed with the title change for distance education instructors when he stated that the faculty role in a distance learning environment has changed to be one of mentor and manager. Once classes have been developed, Palloff and Pratt (as cited by Easton, 2003) recommended that teachers need to fade into the background, and proceed with monitoring the discussions. Interruptions to the student processions should take place when contributions are needed to stimulate a new way of thinking or to keep discussions on track.

Garrison’s model (1997) identified the self-management, self-monitoring, and motivational components necessary for successful self-directed learning. It may be recommended that faculty fade into the background but faculty must also take responsibility for monitoring how successful the students are at self-directing their learning. Not all students will be accomplished in these components.

Brockett and Heimstra's Personal Responsibility Orientation model (as cited by Howland & Moore, 2002) viewed the student as holding the brunt of responsibility for the learning experience. Without the presence of the lecture format, the responsibility falls to the student to interpret the contextual messages found in the written materials provided by the instructor. Easton (2003) recognized this as a power shift from the instructor to the student. Regardless, student-centered classrooms require effort from both the student and the instructor.

A great many authors have supported the need of distance education courses to be structured using constructivism/student-centered and collaborative models. Easton (2003) felt that due to the physical separation of the instructor and student, distance education required a constructivist approach. Knowlton (2000) contended the student-centered approach was the only way for an online course to be effective. Even though online courses force the choice of student-centered pedagogy it does not mean it belittles the possible learning experience. Knowlton reiterated the belief that knowledge is more relevant to the student when the student is active in creating that knowledge. Student-centered may be the typical style and required for the distance education environment, but according to Knowlton, traditional classrooms remain more professor-centered.

The second identified characteristic necessary for distance education courses is developing collaboration among participants. Miller and King (2003) pointed out that it is the inability or unwillingness to make collaboration possible in distance education courses that is detrimental to its success. Unlike the student-centered approach, instructors do have a choice on whether they take steps to set up an environment that encourages and requires collaboration, although failure to do so would be detrimental to

the learning experience (Carr-Chellman, et al., 2000). According to Moore and Kearsley (as cited by Miller & King), students must be active participants in their distance education pursuits. But this would be true for both traditional and distance education courses. Collaboration between students is needed, as well as students actively participating with other students and the instructor in order to build a community of learners (Hiltz and Palloff & Pratt, as cited by Miller & King).

Students may or may not be aware of the social dimension of learning that takes place in the traditional classroom, but distance students often are aware of its absence (Palloff & Pratt, as cited by Knowlton, 2000). In fact, the omission of personal contact was reported by Spooner, et al. (1999) to be the one primary reason students will choose traditional classrooms over distance education. Hiltz (1997), along with Bonk and Cummings (1998), recognized “social interaction, with its dialogue, active participation, cooperation, and negotiation” (Miller & King, 2003, p. 291) is essential to learning. Online course communications were described to use a social constructivist approach by Macdonald (2004), in which collaborative interaction and dialogue is accessed by the use of online media. Benigno and Trentin (2000) agreed and expanded upon this statement with comments that communication channels for online courses operate in a “many-to-many” (many students and instructor-to-many students and instructor) manner. In contrast to many traditional courses, Macdonald believed online courses push more for understanding the content rather than regurgitating facts and emphasized the involvement of social interaction and collaboration to learning. In any educational setting, traditional or at a distance, it is important to note communication is not effortless.

As stated earlier, there are many similarities between traditional and distance courses. Willis (1993) found little disparity between technology-based and the conventional face-to-face instruction. Christensen, et al. (2001) also agreed with this view. Sometimes the differences involve only the extent at which something is done. Stella and Gnanam (2004) viewed the differences as greater and more pronounced. Discrepancies could be related to the time of their studies. Technology advancements and availability, as well as the amount learned about distance education in the past 11 years, has been drastic. Library and learning resources have definitely changed for both distance and traditional students; electronic access of information has saved many students a trip to the physical location. Course materials are now highly interactive and the students often set their own pace (Stella & Gnanam). Course management, as well as the teacher's role exhibit substantial modification. With the conflicting viewpoints of Willis (1993), Christensen, et al. (2001), and Stella and Gannon (2004), it leads one to agree with Easton's (2003) view that the boundaries between traditional and distance education are beginning to blur. "In this learning environment, the role of the ODL [online distance learning] instructor requires the merging of multiple roles" (Easton, p. 103).

### *Blended Courses*

Traditional classrooms are undergoing a metamorphosis. Advancements in technology along with the familiarity of technology and increased experience with distance education for both students and faculty are responsible for these changes. In fact, Easton (2003) and Stella and Gnanam (2004) pointed out it is becoming difficult to differentiate traditional and distance education. Yellen (1998) mentioned that in the traditional classroom, "the students and the instructor are in the same physical location

during some or most of the educational experience” (p. 216). He contrasted distant learning education as “the students and the instructor are seldom if ever in the same physical location” (p. 216). In just a few short years, both statements can now be said to act more as a qualifier for a blended course.

Lines are fading fast. Traditional classrooms and traditional pedagogy are being enriched by use of e-mail (for instruction), chat rooms, discussion boards (Miller & King, 2003), threaded discussion boards, websites, listserv, newsgroups and Internet research (Easton, 2003). Courses can be identified as web facilitated by simply posting the syllabus or the assignments on a web site (Allen & Seaman, 2004). Stella and Gnanam (2004) believed the use of technology demonstrated a more learner responsive flexible system.

Moore and Kearsley (as cited by Miller & King, 2003) made the bold statement that distance education can be found on almost every campus; this is evidenced by the development of hybrid courses. Metaphorically speaking, a modification of the original recipe for the traditional classroom, by adding a key ingredient (technology) of distance education, occurs. Traditional classrooms are evolving as technology has evolved and are beginning to share some of the same characteristics as distance learning classrooms. Predictions were made as far back as 1995 by James Hall and Twigg (2001) that a merger of traditional and distance learning environments was in the future. Oravec (2003) felt this merger was instrumental in garnering attention for distance education.

Blending distance characteristics with traditional classrooms, as occurs when blending traditional characteristics with distance courses, creates its own set of issues for the hybrid classroom. Whenever technology is used, not only should it be appropriate and

enhance the learning experience, Dwyer and Li (2000) felt it should also exhibit user friendliness and promote interaction. In addition, Dwyer and Li also suggested feedback and evaluations of the technology are needed.

### *Critical to Distance Education Success*

It takes the right ingredients to create a successful product. For distance education to be a success, educators must be aware of the required components.

### *Effectiveness*

Survival of any educational program depends upon its effectiveness. Without proven effectiveness, program accreditation can be harmed. In 1998, Turoff exclaimed quality control of distance learning in the United States was sadly lacking. It was 1997 before accreditation reviews focused on this growing area of education (Christenson, et al., 2001).

The educational goal of distance education programs is to offer learning opportunities that will produce the same or better level of learning as those provided in a traditional environment. Whether distance learning can accomplish this feat is a public concern, especially in light of the absence of teacher and student exchanges (Phipps & Merisotis, 1999). Ideally, delivery methods chosen for teaching distance courses should be based upon the following: background and experience level of the student; cognitive style of the learner; diversity of students participating in the course; and appropriateness of the content being delivered (Willis, 1993). Yet other studies vowed that teacher/student and student/student interaction and appropriate content were of greater importance than the delivery system (Willis).

Distance education has commanded a wide range of responses regarding its effectiveness, from negative, mixed, to positive or no difference. Some still hold the conviction that it provides less of an education than on campus courses (Spooner, et al., 1999), while others view only parts of distance education as a diminished experience (Crump; Duramoto; Pirrong & Lathen; and Richie & Newby; as cited by Spooner, et al.).

Not only is the public skeptical, the American Federation of Teachers (AFT) stated educators also have their doubts. These educators have taken a stand on the belief that teaching and learning are essentially social processes and felt the concept of a community could not be achieved unless students and teachers are in the same physical location (Twigg, 2001). Dewey's arguments support the educators in their "learning is a social process" theory. According to Dewey (as cited by Bruffee, 1999), learning occurs when work is done as a social venture, with students contributing and acknowledging accountability. His next statement, that the community does not occur on its own and requires thought and planning, demonstrates that it is the educator's responsibility to accomplish a manifestation of the learning community. The Middle States Commission on Higher Education (as cited by Grandzol, 2004) recommended that faculty should be "involved cooperatively in course creation and delivery and that learning be dynamic and interactive, regardless of the setting" (p. 238). Technology can assist in providing these dynamic and interactive requirements. Bruffee warns us to be careful of hindering distance learning by following "foundational educational assumptions" (p. 129)—ignoring the social dimensions that technology can provide.

Technology is incorporated in the teaching techniques and delivery methods for most distance learning classes, although there are some distance learning courses (i.e.

correspondence study, home study, independent study, and external study) that infrequently or never engage the use of technology. For the purpose of this study, the researcher is seeking information on courses that frequently involve the application of technology, thereby necessitating a discovery of how the use of technology affects distance learning situations. Moore and Kearsley (as cited by Miller and King, 2003) declared technology and its use by the instructor is definitely related to teaching effectiveness. Technology, when overused or used improperly, can be a detriment to learning in any situation. Willis (1993) confirmed that technology should not be the focal point of the course for the instructor or the students; instead, the focus should be placed on the process of teaching and learning.

To measure the effectiveness of distance education, researchers generally investigate student outcomes, attitudes, and overall satisfaction (Phipps & Merisotis, 1999). An abundant number of researchers have stated students report a high satisfaction with their distance education courses (Phipps & Merisotis). Although feedback from students has been favorable, Clow (1999) warned of possible bias from students that have a vested interest. Although satisfaction is important, grades earned in traditional, as well as distance education classes, are thought to be the true test of whether or not learning has taken place. Comparisons of student performance for the two different environments have been reported to show similar grades and attitudes based on experimental studies. But, Phipps & Merisotis questioned the results from these studies based upon the quality of the original research.

Dominguez and Ridley (2001) argued that looking only at student-level data, such as student grades assigned in a traditional course and its distance counterpart fail to

provide a complete picture. Instead, they proposed a shift in the emphasis: removing the focus on the student and placing it on the course itself and reviewing subsequent performance of the student in other classes. To conduct their study, grades for 50 students that had completed a prerequisite course in a traditional classroom but enrolled in the online course that followed this prerequisite course were reviewed with their classmates enrolled in the same advanced traditional course. The courses of six different departments were used. Overall, a significant difference was not found in the grade performance of students enrolled in the online prerequisite and traditional advanced course versus the student enrolled in both courses in the traditional classroom. The researchers went a step further to check for a statistical interaction between method and discipline of the course. Management was the only discipline to experience an online failure leading the researchers to believe this may not be a discipline as well suited to online presentation. Unfortunately, this can hardly be concluded from a study that included only eight management students. Dominguez and Ridley also suggested that these results may have occurred due to instructor bias against online students but fail to mention the possibility of ineffective online management instructor(s).

It is possible that distance education classes are more suited for graduate programs than undergraduate. In Clow's (1999) study, data was collected from student evaluations on a course offered traditionally with evaluations of the same course offered but through the use of interactive television (ITV) delivery. It was found that undergraduates tended to rate ITV courses lower than graduate students.

In 2001, Shea, et al. conducted a survey of distance education coordinators to investigate administrative issues of distance education programs. When asked how

student performance compared with on campus traditional courses, 90% of the respondents reported that distance education students performed “about the same” (p. 112) or “generally better” (p. 112) than traditional student participants. Included in this study was a search for student characteristics. According to the responses, about 50% fell in the non-traditional classification of 30-45 year olds. Based on this, the results of student performance could be slightly skewed. A more accurate comparison could have been derived from comparing the grades from students from both environments, but of similar age groups.

Willis (1993) listed seven elements that both faculty and students need to be aware of when determining the effectiveness of distance learning. Numbers 1 through 5 are directives for the teacher while 6 and 7 provide directives for the student. These elements should not come as a surprise to educators though, since all seven can also be said to be important to the effectiveness of the traditional classroom. The seven elements listed by Willis (1993) are:

1. Use of teaching techniques and delivery methods that take into account the needs, diversity, and context of distance learners.
2. Use of content examples that are relevant to the intended audience, distance learners.
3. Understand urban and rural students and their diverse backgrounds.
4. Encourage student-to-student interaction.
5. Enhance student motivation.
6. Need of family support to the distance learner.
7. Need of suitable learning environments and available technologies.

Easton (2003) suggested it is also essential for instructors to learn how to support distance learning students.

Based on responses from over 1,100 colleges and universities, Allen and Seaman (2004) found that online learning is “judged to be equivalent or superior to face-to-face instruction at most institutions” (p. 18). Only the strongest positive elements of distance education will survive.

#### *Distance Education Student Characteristics*

Prominent in distance education research is characteristics of the successful distance education student. Marshall (2000) believed that the social, political, economic, and philosophical climate influence educational paradigms and enrollments. These forces appear to be driving the popularity and need for distance education. To remain competitive, businesses now demand a workforce that is not only knowledgeable, but pursues lifelong learning. Until distance education became widely available, adult learners often had to forego increasing or furthering their education.

In a study of 250 higher education institutions, Shea, et al. (2001) found that non-traditional students are targeted for distance education programs. Easton (2003) claimed it is the characteristics of the non-traditional student that also enable them to be successful as distance education students. As reported by Brent and Bugbee and Palloff and Pratt, these characteristics include: “(a) voluntarily seeking further education, (b) highly motivated and self-disciplined, (c) older and more mature, (d) willing to initiate calls to instructors for assistance, (e) possessing a more serious attitude toward coursework, and (f) already a holder of a college degree” (as cited by Easton, p. 88). Another important characteristic that should be added to this list is active participant in

learning. Klein (1995) saw traditional classroom students as having the luxury of taking a passive role. He disavowed this role as an option for distance learning students, who must be active to be successful.

The type of learner is also regarded as an important characteristic. In a study of 48 students enrolled in three different online courses, Howland and Moore (2002) examined the experiences and perceptions of students regarding online courses. Although this small population could not warrant generalization, it should be noted that student feedback is necessary for distance course delivery improvements. The research used open-ended questions, providing richer qualitative information. Data was then coded and sorted into themes, using NUD\*IST Vivo (Qualitative Solutions and Research Software). Results showed that students with positive attitudes toward their online course were associated with characteristics of constructivist learners.

Savery and Duffy (1995) stated learners must have a sense of ownership of the learning goals. This could be why non-traditional students are so successful in distance learning settings. Non-traditional students frequently are responsible for “footing the bill” for their education (Tricker, et al., 2001), thereby instilling a stronger sense of ownership. On the downside of this scenario are the higher expectations generally experienced by non-traditional students who are paying their own way. Tricker, et al. felt this group is quicker to complain about a waste of time and money when courses fail to meet their assumptions.

Distance education meets the needs of students who are unable to attend classes due to other commitments (job, family), is more economical (does away with travel or residence hall expenses), and holding a philosophy that learning is active, not passive.

Yet not all non-traditional students with these characteristics are suited for distance education courses. Easton (2003) stated some non-traditional students have a propensity to work individually, while many distance course activities require online group work. This activity should not be enough to keep a student from enrolling in a distance education program though, since even in the dominant learning setting of a traditional classroom, student-to-student interaction in groups in and outside of the classroom are expected (Christensen, et al., 2001). Miller and King (2003) provided the reminder that faculty must consider the demographics and individual learning styles of the student bodies that make up the course. Schamber (1988) directed educators to assess course enrollees' ages, cultural and socioeconomic backgrounds, interests, experiences, educational levels, and experiences associated with distance education methods and delivery systems.

#### *Distance Education Teacher Characteristics*

In Sherry's (1996) review of literature, it was found that the most important aspects of a faculty member teaching distance education courses include: (a) a caring individual who shows concern for the students, (b) confidence, (c) experience, (d) competency with technology, (e) creative use of the media, and (f) remains interactive with the students throughout the course. These factors are also pertinent with traditional classroom teaching and fit in with Keeton's (2004) findings that there is little difference between teaching online or in a classroom.

Keeton (2004) felt the results from his study were more reliable than most studies. Typically when surveys are conducted, the surveys are sent to faculty randomly, resulting in feedback from the novice as well as the highly rated teacher, consequentially making

the results ungeneralizable. However, in Keeton's study, survey participants were selected by their respective Deans and the select few were recognized as highly effective teachers. Faculty participants in this study failed to recognize a significant difference between teaching online or traditionally. This could definitely result in problems for the program since research thus far has supported and recognized differences of a grander scale. Possibilities exist that the highly effective teachers surveyed teach in a hybrid manner, therefore fail to recognize a difference between the two types of courses.

Another problem with Keeton's results was his use of only eight faculty members, which is considered an extremely small sample. According to Keeton (2004), faculty believed student expectations of faculty availability was misguided or incorrect/unreasonable. To alleviate this discordance between faculty and students, Easton (2003) suggested faculty should make it a practice to lay out the communication plan prior to course beginning. This could help prevent misunderstandings or help allay student dissatisfaction.

Another important characteristic designated to distance education instructors is qualifications and talent as an instructional designer (Easton 2003). This is perhaps one of the more difficult activities in that distance education relies heavily on visual interpretations. Tricker, et al. (2001) stressed that content in the course materials is one of the dominant factors involved in distance learning. They emphasized the importance of providing course materials with high readability and logical structure. What may be obvious to the instructor may not be to the student. It is vital the instructor view the materials and media chosen as they appear to the students since the instructor is not present to demonstrate or relate the tie-in to the course objectives.

In order to better understand the dynamic nature of distance education, Easton (2003) conducted a qualitative study of a distance education implementation at a large, southeastern state university. The study focus was directed to the staff and administrators involved in the distance education program. Data was collected and triangulated to insure accuracy. Easton reported that three significant and challenging themes became apparent.

The first challenge contradicts Keeton's (2004) findings that little difference is found between teaching distance and traditional courses. Easton's study recognized the need for alternative course management practices for virtual classrooms. Organization, engagement, modes of monitoring, and evaluation must be redesigned to fit the distance education environment. Since Easton's study involved the implementation phase, it is possible these challenges were still fresh in the minds of the participants while Keeton's participants were experienced with teaching distance courses and the challenges may have faded and/or merged with the methods used in their traditional classrooms, thereby, no longer recognized as a challenge.

Virtual communication issues were stated as the second challenge. Easton's (2003) participants recognized the importance of a fully developed communication plan. Communication may be more of an issue with distance education due to the removal of geographical boundaries. These classes can easily consist of students from all over the world. Student-to-student interactions will be affected by the presence of these cultural differences on a grander scale than ever witnessed before. It is vital the instructor help build a shared culture in the virtual classroom, thereby building a community of learners. Easton stated it is the development of this community that will allow students to work in a collaborative manner. One of the most frequent complaints of distance education is the

feeling of isolation (Hara & Kling, 2000). If the experience is collaborative, the student is less likely to feel isolated.

Schein (1992) stated three sources are responsible for the development of a shared culture: “(a) the beliefs, values, and assumptions of founders of organizations; (b) the learning experiences of group members as their organization evolves; and (c) new beliefs, values, and assumptions brought in by new members and leaders” (p. 211). In this discourse, the founders are the instructors, the organization is the virtual classroom, and the members represent the students. Schein pointed out that it is the impact of the founders that have the most important part in developing a new culture since they are responsible for choosing the objectives and circumstances to be used in the environment. Schein also described the culture development process in four steps, which will be listed here as they relate to the virtual classroom: (a) the instructor creates the key concepts and objectives for the course, (b) these concepts and objectives are shared among the members of the group and the instructor, (c) the instructor develops course activities that require collaboration of group members, and (d) a shared history is built upon the shared experiences of the group members. Schein added that with any culture, it is the founder (instructor) that identifies and solves internal problems.

The third challenge recognized in Easton’s (2003) study was the need for faculty to rethink how time and space are used and viewed in the virtual classroom. Gone is the structured office hours faculty members previously offered for student support. Students expect more immediate responses from faculty. Unrealistically, students believe since they are conducting class work at 10:00 p.m., the faculty member is also. A good communication plan provided at the beginning of the course could possibly alleviate

some student dissatisfaction. Miller and King (2003) listed several authors who believed feedback, whether negative or positive, should be timely. Feedback in the distance classroom takes on a slightly different definition than in the traditional environment. While the prompt return of assignments and tests are one form of feedback, distance education students need the feedback that would be present if the instructor and students were in the same physical location. Since the instructor is physically absent from students, frequent postings of feedback are necessary, otherwise students begin to feel the instructor is totally removed from the learning process. With asynchronous delivery being the most frequent method of distance learning, the need for effective and prompt feedback becomes even more important.

Berge and Collins (1995) described the successful distance learning teacher as one with greater written presentation skills, demonstrates technical competence, knowledgeable in virtual management techniques, and excels in maintaining viable exchanges of communication. Also important to note Berge and Collins' recognition that the distance educator focus is placed on three concepts regarding student learning: the presence of different learning styles; learning comes from what meaning the student has created; and content and retention is not solely caused by the teacher, but what students as learner can be encouraged to do themselves. Teachers should heed Oravec's (2003) warning that student expectations in the traditional classroom are affected by their experience with distance education.

### *Technology's Role*

With technology, there is the good, the bad, and the ugly. Technology was supposed to make life easier but it would be rare indeed to find such person that holds

this opinion at all times. Nevertheless, it can be agreed that technology has touched everyone's life in some way or another. Worley (2000) saw computer-based technology as changing the face of education, and not only with distance education but all the way from kindergarten through college. Lewis and Treves (1997) viewed this as a systematic change in education.

Technology used in conjunction with distance education can require from novice to highly advanced abilities. Factors, such as the level of technology demanded, can discourage students from enrolling in certain courses or programs. While the use of technology in distance courses has been considered a feature that prevents some students from considering this type of learning environment, Christensen, et al. (2001) set out to discover whether technology actually has an effect on student consideration of distance course enrollment. Their hypothesis was that students would have a more negative than positive attitude toward distance learning based on (a) the fear of the unknown, (b) past sampling of traditional students, and (c) the relatively early stages of distance learning in universities. Understanding student receptivity, it was pointed out, would aid in student recruitment, program design, course design, and retention (Biner & Dean, as cited by Christensen, et al.). The study involved 399 undergraduate and graduate students enrolled in one of two private universities. Evaluation of distance learning criteria was conducted using the 5-point Likert-type scale. Since the students surveyed were business school students, the results should be questioned as to their applicability to other disciplines. Findings from the study showed: (a) Student receptivity was slightly more than neutral toward distance learning; (b) Students preferred the use of more interactive media in the learning environment; (c) Distance learning and the need for flexibility were positively

associated with distance learning; and (d) Instead of technology creating a drawback, it was found to actually aid distance education popularity because it removes accessibility to education issues and allows the learning environment to more closely mimic the traditional classroom.

Technology and the Internet have changed the format and learning opportunities of distance education in a big way. The arena for distance education has been vastly changed by technological innovations (Spooner, et al., 1999). Delivery systems have gone way beyond paper. Stretching from correspondence courses to interactive television, the leap for distance education has been tremendous. Dwyer and Li (2000) felt that technology has changed the way people view distance education; a factor that has aided distance education in earning the prestige of being a “mainstream delivery format for instruction and training” (p. 25).

The Internet is thought to have had the greatest impact on the foundation of distance education (Shuey, 2002). Since technology is the fundamental basis for distance education, there are many concerns. Both Worley (2000) and Easton (2003) believed not enough research has been conducted on how to best implement or evaluate the impact of technology, especially for online courses. Miller and King (2003) stressed paradigms of the students, instructors, pedagogy, and the institution must be altered to harmonize with technology. The theme can no longer be ‘business as usual.’

There is a concept shared by many that students have been “raised” with technology—that technology does not present the problem for them that it does with the older population. Not only is this not true, but considering distance education is highly populated with non-traditional students, a perception such as this can wreck havoc on

distance education programs. If the student is unfamiliar to uncomfortable with technology, learning outcomes can be harmed (Robson, 2000). Mason and Bacsich (as cited by Macdonald, 2004) declared that familiarity with the environment, especially technology considering the important role it now plays, is critical for the online student. Kaye (as cited by Miller & King, 2003) mentioned other frustrations with technology. Slow connections, incompatible browser/software interfaces, and servers going down suddenly are aggravations shared by both students and faculty.

Technology has been found to be a problem for some students but it has also provided solutions. Distance education is said to remove social aspects normally found in face-to-face courses. Kaye (as cited by Miller & King, 2003) stated that research points to the social factor as ranking higher in determining the success or failure of a computer-based course. Advances in technology are claimed to be leveling the playing field though. Carr-Chellman, et al. (2000) asserted computer-mediated communication (CMC) plays a significant role in removing the students' feelings of isolation, which Collis (as cited by Macdonald, 2004) visualized as an 'electronic community of learners.'

In today's distance education, technology plays a large and significant role. Because these courses revolve around technology, students, even those considered technology suave, can become frustrated and dissatisfied with the course. It is vital that technology only be used when it is the best alternative for supporting course requirements; technology failure plans are established and shared with the students; is easy to use and learn; and the university infrastructure is strong (Miller & King, 2003).

Knowlton (2000) feared teachers may not have the competency required for building and operating technology based courses, leaving them little time to manage the

learning experience. Willis (1993) and Miller and King (2003) agreed with Knowlton and advised that technology should be inconspicuous, permitting the teacher and students to focus on their true purposes, teaching and learning.

As is true for traditional courses, certain tools used in the classroom to instigate learning are not as effective for all students. Technology as a learning tool operates in this same manner, therefore, a variety of media is recommended by Moore and Kerseley (as cited by Miller & King, 2003). Willis (1993) avowed media and delivery systems are important but only when used appropriately. With proper use, technology offers a way to bestow or construct learning opportunities unlike ever before available (Collis, as cited by Macdonald, 2004).

Miller and King (2003) believed guiding principles for the use of technology were in order. A few from this list include: (a) Technologies used throughout the course should be consistent and coherent; (b) If distance education programs do not require students to have standard technological competencies prior to enrollment in distance education, educators should be aware of the competencies of their students; (c) The technologies used in the course must be appropriate for the curriculum; (d) Student learning styles, cultural, and individual differences should be taken into account.

#### *Distance Education Barriers*

It was destiny that distance education would become so popular. While Easton (2003) listed the following four coinciding higher education issues that present complex challenges for delivering courses over the Internet, three can actually be said to have contributed to the increased enrollments in distance education: (a) advances in computer technology, (b) rapidly growing enrollments, (c) changing student demographics, and (d)

continued cost containment requirements. First, advancements in technology have changed education, the results being high interest and distance educational prospects never before possible (Worley, 2000). Next, universities have become more focused on recruiting non-traditional (over the age of 22) students who are likely thought to be some of the most likely candidates of distance education courses (Ludlow, as cited by Easton, 2003). Third, Regalbutto (1999) mentioned the concern administrators have regarding the expensive technology universities experience and the desire to get a greater return from their investment. Distance education provides this opportunity.

Program improvements transpire once problems and issues are discovered, and then addressed. In a study conducted by Shea, et al. (2001), 250 institutions offering Internet-based programs were surveyed to reveal the problems and issues challenging the administrators managing these programs. Although the information collected was not considered generalizable to other populations, results demonstrated (a) More student interaction and technical support was desired by the students; (b) Faculty members also agreed that more technical support was needed and felt more pay was warranted (resulting in the possible loss of quality teachers) ; and (c) Distance education coordinators were concerned with the low amount of staff available and desired alternative forms of evaluation (Shea, et al.). In response to the request for more technical support, help desks do not appear to provide the support required by distance learners. This could be contributed to the quality of support and/or the hours of support provided. While this study was performed for the purpose of comparison with other studies, a chance to gain valuable information was missed due to the design of the survey responses. Ready-made responses were provided for each question seeking problems or

issues experienced, stifling the opportunity to find new information not listed by the survey developer.

Seeking parallels between distance education, the service industry, and evaluation needs, Tricker, et al. (2001) surveyed 285 students from two different distance programs. The top four distance education issues were identified by students as lack of contact with others in their field of study, difficulty of registration, inappropriate support services, and low level of individual student support. In regard to course materials, students expected quality of content. They desired the following features: readability, logical structure/consistency, up-to-date content, variety of media, physical durability of materials, and being self-contained. When asked about assessment, the students unanimously chose the quality of feedback, relevance of assignments, and clarity of assessment criteria as being the most important aspects. These results confirm the need for frequent and high quality communication to compensate for the lack of face-to-face interaction. Although the researchers were unclear as to how generalizable their results could be considered, it was surprising to find the student responses were in such accord. A warning was provided that the students may have responded in a manner that reflected bad experiences in the program which they were currently enrolled.

Singh and Pan (2004) shared what May Burgan, the General Secretary of the American Association of University Professors, identified as distance education issues to the U.S. Congressional Web-based Education Commission in July 2000. Burgan reported:

First, from a pedagogical perspective, there are concerns about the accuracy, lack of complexity and depth, and the commercialization of the Web, suggesting flaws in the quality of information, and the possibility of bias. Second, there is a real concern about student isolation and the impact

on team and inter-personal skills. Third, there is the issue of access to modern technology, especially by minority and lower-income families/students. Finally, in terms of intellectual property, the use of copyrighted material in web-based education, and the issue of who owns the material created for web-based instruction, are also issues that need resolution. (p. 304)

Others also agreed with Burgan's view that technology could be a barrier for distance education. Miller and King (2003) noted a lack of technological expertise for both the students and instructors could be detrimental. Bland (as cited by Clow, 1999) saw a different type of problem related to technology. Successful instructors make adjustments to their normal teaching style to work with technology rather than try to force technology to conform to their teaching style.

Miller and King (2003) reported up to one-third of distance education students fail to complete the course, resulting in losses of hundreds of thousands of students.

Christensen, et al. (2001) claimed technology, reputation, student constraints, and learning preferences as foretellers to student completions of distance education courses. Frustrations with the technology, lack of feedback, feelings of isolation, anxiety, and confusion are also problems identified as contributing to the high dropout rate experienced with distance education courses (Miller & King). Skill with virtual communication can help counteract these negative effects. Easton (2003) pointed out the importance of a communication plan that addresses student need for information. Communicators must critically assess how they communicate in a virtual environment, avoiding sarcasm and using humor carefully.

While comfort and convenience are lauded as favorite elements of distance education, students still prefer being in a classroom with the instructor leading the class (Spooner, et al., 1999). Personal contact ranks as highly desired in an educational setting.

The responsibility lies with the instructor to create activities and exercises that encourage, as well as require students to interact (Clow, 1999). Clow stressed “. . . problems must be addressed and overcome to ensure that students perceive that they receive the same quality of education regardless of the technology used or the site from which they obtain the course” (p. 103).

### *Development of Policies*

Distance education can no longer be considered a fad that will lessen in importance as time passes on. Higher education institutions are all vying for a piece of the pie, as was demonstrated in a 2000 market survey which found that 94% of all colleges were either offering or planning to offer distance education courses (Twigg, 2001). Now that the verdict is in, universities are recognizing the need for policies to govern or regulate distance education program practices (Czubaj, 2001).

The development of policies is much more involved than most people expect. Activation of the process is triggered by policy issues (Bryson & Crosby, as cited by Fowler, 2000). Higher education and political systems are faced with different approaches to new problems brought on by distance education. Fowler stated in this event, the political system will review the options, embrace one of them, implement, and then evaluate the results. Ideas, beliefs, and values shape policies (Marshall, et al., as cited by Fowler) and Fowler believed policy makers consider only predominant values in order to remain favorable by the public.

### *Current Distance Education Evaluation Practice*

The Institute for Higher Education Policy (1998), whose mission is to foster access to and quality in postsecondary education, accentuated the requirement for reliable

and valid performance measurements (Twigg, 2001; Scanlan, 2003). Marshall (2000) felt “the design, delivery, assessment, and evaluation of distance learning is pragmatic and not theoretical, based on historical practice and not careful analysis” (p. 2). Achtemeier, et al. (2003) recognized many evaluation instruments failed to include questions that address the uniqueness of the online environment. They suggested this occurred because universities were using traditional course evaluations to evaluate distance courses. These actions constitute the collection of data using traditional education assumptions, concepts, and values which many say differ from distance education. In events such as these, Marshall recommended the development of “new paradigms and models and new ways of collecting and analyzing data” (p. 2).

### *Evaluations*

Most people believe evaluations of job performance and programs are necessary, although some may actually go so far as to acknowledge them only as necessary evils. Despite what is felt about evaluations, the benefits outweigh the detriments. Well designed evaluations can provide valuable information that enable users of the information to make important decisions. Validity of evaluations have been accepted by some educators but disputed by others. One argument against the validity of evaluations rests with the opinion students are not mature or knowledgeable enough to recognize the nuances or relationships of teaching methods and learning. The best argument pro validity can be found in student ratings that correlated with alumni ratings (.40 to .75) established by Overall and Marsh (1980) and Braskamp and Ory (1994) (Anonymous, 1999).

Government, private, and personal monies provide the funding for higher education. As a result, many have a vested interest in the results of their expenditures. Sutherland (2000) remembered when universities held a highly honored position in society but admitted the public move toward accountability no longer shields them from public scrutiny. It is no longer accepted or taken for granted that a “good” education will be received just because one attends a university. Accountability is being forced upon educational institutions, from elementary school to higher education.

#### *Purpose of Evaluation*

Education has a long history of using evaluations (Patton, 1997) that review both programs and faculty (Algozzine, et al., 2004). Programs are evaluated for quality and accreditation (Shea, et al., 2001). Evaluations of faculty also serve a purpose but, unfortunately, there is not a consensus as to exactly what that purpose should be. One point on which everyone seems to be in agreement is that an evaluation provides information or data to decision-makers. Basically, any further discussion on evaluation demonstrates the enormous amount of dissension present among all educators.

Collecting information is not a valid enough reason to conduct an evaluation. The information must be utilized or the evaluation process was a waste of resources (time and money) for all involved. According to Patton (1997), the focus of an evaluation is its intended use. He lists these purposes as: rendering judgments, facilitating improvements, and/or generating knowledge.

#### *Decision-makers*

Willis (1993) identified four users of evaluation data as students, academic administrators, institution administrators, and faculty. Students use the information to

base course enrollment choices (Marsh & Roche, as cited by Chen & Hoshower, 1998; McKeachie, 1996; Spencer & Schmelkin, 2002; Willis, 1993). Information they are seeking is the effectiveness of the instructor, content relevance, and whether the course will aid in reaching long-term goals (Willis, 1993). Academic administrators seek data from the evaluations to judge classroom teaching performance (Emery, et al., 2003; Neumann, 2000; Willis, 1993). Wagenaar, as cited by Chen and Hoshower (1998), affirmed that over 90 % of schools assess teaching performance from information gleaned from student evaluations. Once analyzed, administrators frequently will base tenure and promotion decisions on evaluation results (Algozzine, et al., 2004; Chen & Hoshower, 1998; Halpern & Hakel, 2003; McKeachie, 1996; Spencer & Schmelkin, 2002; Willis, 1993). Data from evaluations help institutional administrators determine whether institutional missions are being met, as well as in the development of further educational program plans (Willis). Lastly, faculty can contemplate their job performance from the views of a first-hand observer, whether the role was filled by an administrator or student, by reviewing data collected from evaluations (Algozzine, et al., 2004; Chen & Hoshower, 1998; Halpern & Hakel, 2003; McKeachie, 1996; Spencer & Schmelkin, 2002; Willis, 1993). One thing is for certain, evaluations are not used to assess whether learning occurred. The true determining factor of whether learning occurred does not reside in student course evaluations, but in the application of the learning in a real world setting (Benigno & Trentin, 2000; Halpern & Hakel, 2003).

### *Style of Evaluations*

Depending upon the purpose of the evaluation, there are two styles of evaluations: formative and summative. Formative evaluations seek more detail than summative

evaluations, making formative evaluations the best tool for improvement purposes (Laverie, 2002). Summative evaluations were viewed by Spencer and Schmelkin as a process “providing administrators with evaluative data used in personnel decisions such as tenure and promotion” (p. 398). According to Kahn, as cited by Laverie (2002), “summative evaluations are normally quite standardized, whereas formative evaluations are more individualized” (p. 105).

### *Intended Use*

Patton (1997) suggests there are three main approaches to evaluation, each with its own purpose. First, there is Patton’s judgment-oriented evaluation, whose purpose is to render judgments. In this summative evaluation, judgments are made on value or worth, demonstrating a focus on accountability and effectiveness. Utilization of the judgment-oriented evaluation could answer such questions as: Is this a quality program or has the teaching been effective in reaching its objectives? With this type of evaluation, Patton stated it is imperative to specify the correct criteria for judgment. Shadish, Cook, and Leviton are cited by Patton as adding three additional steps that are necessary when judging value: create standards of the performance expected, measure the actual performance, and then take the results and change them into a value.

Patton’s second evaluation type, improvement-oriented, is considered formative and is aimed at improving what is being evaluated. Detailed information collected with the use of this tool should point out strengths and weaknesses, therefore, when acted upon, improving quality. The difference between this type of evaluation and the judgment-oriented is while one is seeking ways to improve, the other is seeking judgment. While both the judgment-oriented and improvement-oriented evaluations

require that a decision or action follow the use of these instruments, Patton's third evaluation, knowledge-oriented, does not. Instead, the results from this evaluation tool contribute by increasing one's knowledge. Knowledge-oriented evaluations are conducted to test theories, glean a better understanding, and create policies, among other uses.

Although an evaluation can be comprised of all three approaches, one will most likely become the principal purpose (Patton, 1997). Patton found the following:

Formative and summative evaluations involve significantly different research foci. The same data seldom serves both purposes well. Nor will either a specific formative or summative evaluation necessarily yield generic knowledge (lessons learned) that can be applied to effective programming more generally. It is thus important to identify the primary purpose of the evaluation at the outset: overall judgment of merit or worth, ongoing improvement, or knowledge generation? (p. 78)

Patton (1997) cautioned that for any evaluation activity or stage of the evaluation, it is critical to know the precise priority use of the findings.

Algozzine, et al. (2004) recognized there are two main uses for the data collected from student evaluations of faculty: improving teaching practices (formative in nature) and making employment decisions (summative in nature). Spencer and Schmelkin (2002) described the formative evaluation process as providing faculty members positive and negative student diagnostic feedback about their teaching and the areas in need of improvement. Spencer and Schmelkin (2002) added a third purpose to Algozzine and other's previously stated two uses that is also summative in nature.

Cuseo's *Assessment of the First-Year Experience*, as cited by Achtemeier, et al. (2003), suggested another filter to be used in developing a good "assessment" tool. Cuseo offers the following guiding questions for planning any assessment effort:

1. Why is the assessment undertaken? Is the focus student or faculty experience?  
Is it the design of the course? Is it the delivery? What will change?
2. What outcomes are being assessed? At what level?
3. When should the assessment take place?
4. Where and how should the assessment take place?
5. Who should be involved?

The use of student evaluations to compare faculty is highly disputed. Martin (1998) felt this misconception was based on two assumptions and was strongly against this institutional practice. Both assumptions, that performance can be controlled by the instructor and that variations are equally dispersed across employees were argued against by Martin based on Deming's theory on variation. Deming was cited as saying 94 % of variation in a system cannot be ascribed to the employee, but to the system itself.

### *Evaluation System*

Marshall (2000) equates a system to a model, which is made up of ideas or hypotheses that explain "the relations between parts of a system" (p. 2). Using this theory, evaluation systems should be theoretically based, provide a representation of observed or measured properties, set up in a way that allows for conjecture of new relationships, and evaluate "how well the model fulfills its function" (Reese & Overton, as cited by Marshall, p. 2).

The traditional course evaluation system, as described by Sproule and cited by Algozzine, et al. (2004) consists of the following characteristics:

- (a) An instrument is developed, comprised of a series of open-closed-ended questions about course content and teaching effectiveness; (b) At least one item addresses 'overall' effectiveness; (c) Written comments about the course content and the effectiveness of the

instructor are solicited; (d) Anonymity of responses is assured and assumed; (e) Responses are obtained at the end of the term in the absence of the instructor; (f) Item and scale responses are summarized across instructors, departments, and colleges as evidence of 'teaching effectiveness' used in making various professional development decisions; and (g) Student (for example, GPA, academic year), course (required, graduate), and instructor (novice, experienced) differences largely are ignored in analysis and reporting of scores reflective of 'effectiveness.' (p. 135)

History has its benefits. Using Sproule's traditional course evaluation system, (which appears to provide characteristics that are suitable for not only traditional, but also distance education evaluation system) the development of a strong system is one step closer. Marshall (2000) also recommended using history. She believed a distance education system could be improved by reviewing the distance learning design and evaluation methods used in the past.

*Evaluation Rationale.* Behind every good system is a plan. The evaluation plan should identify the nature and source of information needed, the purpose of each evaluation or survey used, who will use the information, how much information is needed, and who will evaluate. Armed with this information, it can then be determined the methods, styles, and strategies to be used (Robson, 2000). The recommended strategies found in the research will demonstrate vast differences from the traditional evaluation system, further justifying the need for a different distance education evaluation system.

*What to Evaluate.* In Worley's (2000) review of the Institute of Higher Education Policy (1999) report, a lack of literature addressing distance education programs was found. To establish quality programs, information is invaluable. Along with research,

evaluation of programs provides much needed data that can be acted upon, but only when evaluating the right elements.

Two issues regarding the evaluation of online courses were recognized by Benigno and Trentin (2000): evaluation of learning and evaluation of student performance, of which verifying learning is the most difficult to assess. There are additional elements not found in traditional learning environments that make distance education more difficult to evaluate. The purpose of their paper was to describe a tested approach to online course evaluation. The authors directed evaluators to assess the following elements that are known to affect the student's success: (a) individual characteristics; (b) level of participation; (c) collaborative and content message analysis; (d) interpersonal communication; (e) available support resources (i.e. bookstore, technology, registrar, etc.); (f) reaction to the methodological approach (as opposed to seeking judgment as to whether the student thought it was a correct instructional method); (g) usefulness of the learning material (as opposed to seeking judgment as to whether the student thought it was the correct learning material); (h) learning environment (i.e. local, virtual, social, etc.); (i) communication through technological means; and (j) value placed on the course as opposed to value placed on traditional learning.

Benigno and Trentin (2000) felt bias would make their last bullet hard to evaluate since distance education students want to continue being offered distance education classes. Students are more apt to believe that distance education classes are here to stay regardless of their response. Trends and the popularity of distance education leads one to believe it is now considered a permanent part of college life. Spooner, et al.

(1999) acknowledged that not only does distance education work, it is considered more flexible for students, instructors, and institutions than is traditional instructional course delivery.

Value can be found in changing the traditional course evaluation system, when used for distance education, based on special circumstances that education at a distance creates. Just as ACT and SAT exam scores are predictors of student success in university programs, distance education also has its predictors

Benigno and Trentin (2000) recommended all distance education course descriptions contain prerequisite information that would help weed out those not suited to online learning. Students that decide to enroll would then be surveyed to provide the educator with a student profile. The purpose of this survey would be to collect information about the students' pre-knowledge and experience held in the course topic area (allowing the instructor to adjust the course to meet the needs of the students); previous distance/online course experience; reason for enrollment in course and expectations; student learning environment that may affect learning; and proficiency in the use of technologies. Webster and Hackley (1997) concur with the theory that faculty need to know where students stand on technology. They stated technology could only be successfully used in distance education if the users' attitudes and opinions are favorable toward technology.

In the distance education evaluation system, a final evaluation should be sent to provide data that can be analyzed as to the views of the participants. Benigno and Trentin (2000) thought the questions should cover: (a) content of the course, (b) educational approach, (c) instructional materials used, (d) course activities, (e) conditions of

negotiating participation by individual students, (f) technology used, and (g) moderator and facilitator performance of instructor.

What appear to be missing from their list are communication aspects, support staff helpfulness, and feedback from professors. While many evaluations ask questions regarding instructor enthusiasm, interest, and concern, many educators take issue with style type questioning (Paswan & Young, 2002). It is believed that these characteristics provide little in promoting learning. Bruffee (1999) states the key element in student satisfaction is interpersonal self-esteem which occurs through peer relations, not teacher and student.

*When to Evaluate.* Distance education is not just for higher education or universities; it has encroached upon the high school scene as well. Vrasidas, et al.'s (2003) discussed distance education and virtual schooling complexities with Clark (2001), reporting there were between 40,000 and 50,000 K-12 students enrolled in distance education during 2001-2002. A variety of data sources were used to determine themes and patterns that would lead to the improvement of the distance courses offered. Vrasidas, et al. also used two online survey questionnaires, one at the beginning of the course assessing technology skills, demographic information, and student perceptions and attitudes of online courses. Another survey was submitted at the end of the course for the sole purpose of collecting students' views and to discover how to improve the course for the following semesters.

Student evaluations are typically administered at the end of the course, when it is too late for improvement to take place that benefit the current students (Algozzine, et. al., 2004; Anonymous, 1999; Neumann, 2000; Paswan & Young, 2002). The essential

question educators must ask themselves in regard to this schedule is what reward the current students will gain by completing the form at this time except to let off steam on possibly a very frustrating and demanding semester. Students need a more immediate reward for completing this task (Spencer & Schmelkin, 2002). If the evaluation is to be used for the purpose of improvements, the students completing the evaluation want this benefit. To also be considered is the fact that distance education in higher education has a much higher rate of course enrollment without completion (Miller & King, 2003). Without more frequent evaluation, valuable information is excluded and findings are only taken from those who are successful (Phipps & Merisotis, 1999), therefore skewing evaluation results.

Refunds for dropped courses decrease in amounts the longer a student remains enrolled in a course. The problem is to choose a time when a student is still enrolled but has experienced enough to have formed a valid opinion. At the end of the second week or the beginning of the third week of class seems to be an opportune time to conduct the first evaluation. Using this timeline, the evaluation would catch those that have enough experience to provide valid information about the course, yet have not dropped the course. Information gained at this period in the course also gives the instructor time to make improvements. Evaluations given in the first half of the term have been positively connected to improving teaching (Anonymous, 1999). This same formative evaluation could also be given at the end of the semester and feedback would be available on the improvements made. Both the current class and the succeeding class would benefit from the timeliness of this procedure. Faculty would then know whether further modifications

to pedagogy are necessary. If the primary purpose for conducting evaluations is to improve teaching, this early feedback is critical.

Mid-semester formative evaluations also show promise for improving the distance education experience. It is during this period in the course term that the educator can assess if learning objectives of the course are being met (Laverie, 2002), with time remaining to alter instructional plans. Laverie stated more detailed and useful information can be collected at this point. Even with the suggestions of the earlier evaluations, there is still a need for the evaluation at the end of the course. One of the biggest problems with waiting until the conclusion of the semester (especially if it is the only one issued) is the poor timing for students. At this time, more than any other, students are overwhelmed with deadlines for class projects, presentations, and studying for exams (Paswan & Young, 2002). Not exactly an occasion in which to find students in the best frame of mind and attitude.

In addition to beginning semester evaluation by students and early, mid-semester, and end of semester formative evaluations, feedback throughout the course is recommended. This has been proposed in two methods. First, Benigno and Trentin (2000) suggested the requirement of students to send progress reports at the end of each section under study. The brief in nature reports would inform the instructor of any difficulties with the assignments, technology, or personal issues. Second, Laverie (2002) recommended a student management team be formed. The team would then gather feedback from the students and share this information with the instructor on a regular basis. Feedback is considered to be an important part of evaluation and to lead to improvement. With the student management teams gathering regular feedback and

providing it to the instructors, immediate improvement can start. The million dollar question is will the instructor actually change his/her course based on the collection of the mid-term data.

Achtemeier, et al. (2003) passed on important advice. They stressed the importance of revising evaluation instruments to ensure accuracy, reliability, and the continuance of feedback on online courses and instruction. Both distance education and its counterpart, technology, are constantly evolving, validating the pertinence of their advice. In addition, Achtemeier, et al. acclaimed evaluation instruments were to be used as only one part of the online course and instruction assessment and evaluation process. The best counsel Achtemeier, et al. provided though, was:

Questions of reliability and validity of the conclusions are immediately asked when questions designed for one environment are used for a different environment. This failure to construct an instrument specific to the educational environment allows much important information to escape assessment and may introduce irrelevant questions and erroneous information into the evaluation process. Educators and faculty are encouraged to develop end-of-course evaluations specific to the online environment and course of study. (p. 11)

There is a need to do more than develop end-of-course evaluations to deal with this new method of instructional delivery. What is needed is a change to the entire evaluation system, including modifications to what, when, and how online courses are to be assessed (Benigno & Trentin, 2000; Cuseo, as cited by Achtemeier, et al., 2003; Robson, 2000).

*Other Parts of an Evaluation System.* Faculty and courses are not the only commodities being evaluated by some universities. A Texas Women's University demonstrated a totally new aspect of a distance education system. Czubaj (2001) reported on their establishment of a Distance Education Program Evaluation Advisory Committee

(DEPAC) of students, faculty, administration, and support staff for the sole purpose of evaluating activities of their distance education programs. DEPAC was responsible for monitoring institutional commitment, coordination, and the five service areas of academic affairs, student life, information technology services, library services, and partnerships and liaisons. This practice aids in the development of a more holistic evaluation system.

Another part of the evaluation system is the evaluation conducted by administrators. It is the administrators who are responsible for the vital undertaking of program accreditation activities (Tobin, 2004). Evaluations of faculty performance in the distance education environment have witnessed greater changes for the administrators than for the students. Typically this phase of the evaluation process requires the administrator to conduct a classroom observation, create an evaluation report, which sometimes includes the results from a summative instrument—complete with a scale to score faculty presentation skills, professionalism, material coverage, media usage, and general comments. Online courses force administrators to reexamine this traditional evaluation process and instigate the following administrative questions (Tobin):

1. How is a classroom visit to occur if the course is asynchronous?
2. What preparations are needed to review class discussions?
3. How can I ascertain the classroom discussion quality and the instructor's involvement?
4. How can the instructor's department be evaluated?
5. Where, how often, and what should constitute a visit in the course shell?
6. Is more multimedia required for the online instructor?

7. And most importantly, how can one evaluate an online course when never having experienced the process?

*Evaluating Technology.* Correspondence courses revolve around the mail, while the most popularly used current distance education revolves around technology. Phipps and Merisotis (1999) indicated that most of the research conducted on technology and distance education is focused on how technology influences student learning and satisfaction. Phipps and Merisotis discovered that learning tasks, learner characteristics, student motivation, and the instructor rank higher in importance than the technology. This probably has not always been the case. Technology's lower ranking may be a result of an increase in students' technological abilities and familiarity. Christensen, et al. (2001) recognized technology familiarity greatly affects the student's evaluation of distance education. Based on this notion, there are several questions the educator may need to ask to assess the students' level of technical knowledge required for each course and program, possibly developing a technical rating system such as prerequisites work for regular courses. These questions include (Phipps & Merisotis, 1999): How satisfactory is technology access? Will the skill level of the student make them a good candidate for a distance education environment? What communication methods work best for asynchronous communication? Does the institution provide adequate technical support? Without proper technical knowledge, the validity of the evaluation lessens. A study of the relationship between evaluation scores and technical knowledge (gathered from pre-course surveys) is in order.

Other technology issues that may also affect evaluation ratings are usefulness of technology, inability to keep pace with technology advances, and technology access.

These issues accentuate the need for the instructor to evaluate his or her use of technologies and provide ammunition for the recommendation of a pre-course student technology inventory. Christensen, et al. (2001) stressed the technologies used in distance education should have a purpose, not just to add razzle-dazzle. If a taped message broadcast over an Internet site adds to the learning event, then by all means, provide one. But if the slow downloading time of the taped message frustrates the student and reading the information would have been sufficient, then instructors should refrain from trying to impress their students with their technology wizardry.

The second issue mentioned, technology advances, affects both the instructors and student. Technology changes at a frequency that makes it difficult to keep up with. Teachers are urged to be aware of the dangers of using new technologies without understanding its practical uses (Phipps & Merisotis, 1999). In addition, consideration must be given to student knowledge of new technologies that teachers would like incorporated into their virtual classroom. If the know-how is missing, so will be the lesson.

There are several accessibility issues associated with online distance education: (a) the ability to access the technology used in the course and access to information that explains how to use the technology; (b) the distance education experience is not available to all students; (c) the cost of computers may be prohibitive to some potential students and compounded with living in a rural area, a public library or other public access may not be an option. In this sense, underprivileged student enrollment in computer-mediated distance programs is harmed; and (d) the technology found in some courses may be foreign to some students, especially in light of the speed technology changes. The

importance of having support staff that can explain the use of technology found in distance education courses has been clearly demonstrated (Christensen, et al., 2001), but universities frequently fail to provide ample support, especially available when the students need support for their distance education programs.

### *Student Evaluations*

For decades higher education has in effect been saying we are doing a good job, trust us. Students, parents, legislators, and the public in general—our stakeholders—are no longer willing to simply take our word for it. It wasn't until the mid-1920s that student evaluations became an instrument used in higher education (Algozzine, et al., 2004). Blind trust became a thing of the past in the majority of the U. S. during the 1960s, when the practice of student course evaluations was established on a routine basis (Budd, 2002). These forms were specifically designed to measure observed teaching styles or behaviors (Wright & O'Neil, as cited by Chen & Hoshower, 1998). Student evaluations were seen to have dual purposes: as a way of making faculty accountable and to improve teaching (Budd, 2002; Griffin, et al., 2003; Hiltner & Loyland, 1998; and Sutherland, 2000). The information collected from evaluations aid in decision making by faculty, as to how to teach their course, and by administration, on promotions, tenure, and program assessments (Chen & Hoshower, 1998). While quite a few education councils and affiliations have helped design guidelines and standards to ensure quality Internet-based education, Scanlan (2003) believed an instrument has yet to be developed that can accurately assess online courses.

Of all educational topics, student evaluations of faculty members appear to be one of the most controversial. No one appreciates scrutiny directed toward his or her job

performance. The entire process is viewed as demeaning; especially when the person being scrutinized is considered a professional. Add to this mix, placing an “underling” in the position as evaluator, and even greater protest is voiced. Emery, et al. (2003) stated “From the very beginning, student instructional rating questionnaires have been touted as a cheap and convenient means of evaluating the teaching of college and university faculty” (p. 38). Regardless of the controversy, student evaluations remain popular evaluation instruments. Even with the unresolved issues, these instruments are generally well received by researchers and practitioners (Spencer & Schmelkin, 2002).

Research on student evaluations has been very divisive. One of the reoccurring themes against the use of such instruments is validity or lack thereof. Marsh and Ramsden believed student evaluations to be both valid and reliable (as cited by Griffin, et al., 2003). Algozzine, et al. (2004) recognized the research on student evaluations was far from being consistent. The questioning of validity has shown to become exacerbated when the results returned are negative (McKeachie, 1996). Some view student evaluations to be more reasonably free from bias and statistically reliable than any other data collected for the purpose of assessment. Algozzine, et al. (2004) recognized student evaluations as one of the most prevalent measures of teaching effectiveness. While evaluating faculty by students has been a long time practice, it is due to distance education that student evaluation is once again in the forefront of educational issues.

Many instructors vehemently resent evaluation by students. Besides the lack of instrument validity, another frequent argument includes the lack of student ability to discern good teachers from bad. Algozzine, et al. (2004) warned that teaching is very complex and without a finite definition of an effective teacher, caution should be used

when making finite decisions. Even the use of the term ‘evaluation’ ruffles some feathers. One author felt student ‘ratings’ was a more accurate term (Anonymous, 1999). Some faculty members consider evaluations to be popularity contests and the term “ratings” does correlate this view. Think about it: we rate movies, we rate hotels, we evaluate faculty, and we evaluate job performance. Regardless of the term used, students play an integral role in assessing teachers. Chen and Hoshower (1998) cited Douglas and Carroll, Hofman and Kremer, Marsh, and Tom, et al., as reporting that several studies have demonstrated a significant relationship between the attitudes of students toward the evaluation and the actual success of a teaching evaluation system. It is imperative to understand that unless students believe their feedback will make a difference (Budd, 2002; Chen & Hoshower, 1998), student attitude will not be favorable in providing true responses.

Although no studies were found to repudiate or agree, researchers and practitioners that exhibit comfort with the use of student evaluations are probably more likely to do so if they feel proper use of the instrument occurs. Griffin, et al. (2003) recognized the importance of student perceptions but also saw a potential for the data to be used wrongly. Objections to the use of student collected data on teaching effectiveness are strongest when the data is used to determine promotions, salary increases, and tenure (Algozzine, et al., 2004). It was stated the student evaluation data is considered improperly used when only a single source of information is being relied on to base judgments and when trying to meet both formative and summative functions (Anonymous, 1999) which is emphasized by not having a consensus on how we should

evaluate (McKeachie, 1996). Other methods of assessment should be used to further validate the evaluation data and to provide a “check and balance” to the system.

Sutherland (2000) said it best when stating “students represent our most important stakeholder group, and the ‘quality of academic programs’ will reflect how we are perceived by prospective students as well as those who are likely to employ them” (p. 13). As the primary stakeholder, students are investing a great deal of time and money on their education and have earned the right to voice their opinions on all university services, including teaching. Who better to complete the evaluation form than those that actually go through the experience? Administrators do not sit through the course process from start to finish and can do little more than review the syllabus and content materials (Twigg, 2001), therefore student evaluations should be recognized and accepted as a vital part of the evaluation system. It is not as if the students create the questions on the evaluation; this task is left to educators and specialists who should know how to develop an effective instrument. Often educators forget that students are only the providers of the data, not the actual evaluators (McKeachie, 1996).

#### *Intended Use of Student Evaluations*

Faculty members have a difficult time accepting the practice of using data from student evaluations for multiple uses. As seen earlier, dissention occurs when this instrument is used for drawing conclusions and making decisions in regard to teaching abilities, career advancement or tenure, and funding of educational activities and programs (Neumann, 2000). One of the arguments against this practice is the belief that student evaluations cannot return results as high as is found in research (Worthen &

Sanders, as cited by Starr-Glass, 2005). Beliefs may not be so strongly held against this practice if the data were used as basic research instead of applied research.

Neumann (2000) identified several factors to be considered when using student evaluation data:

1. The complex interplay of factors require more than the one source of information and method for data collection provided by student surveys.
2. Methods for interpreting the data must carefully consider interactions between variables.
3. Use of the mean score is improper; scores should be discussed as a range instead.

McKeachie (1996) identified three major uses of student ratings. The first use mentioned student guidance in choice of courses, and true to form, as with the majority of topics relating to student evaluation—it shows a lack of agreement among educators. There is the assumption held by some faculty, contrary to the view of Coleman and McKeachie (as cited by McKeachie, 1996) that students will use the faculty reviews to choose the easiest courses. Coleman and McKeachie actually found in an earlier study that students instead opt for the more highly rated course even if the course required more work.

The second use involved the use of data to improve teaching and research by Remmers helped form McKeachie's belief. McKeachie (1996) considered the work conducted by Remmers, of Purdue University, that covered four decades was among the best ever done. Remmers and his students found the following:

1. From the group of instructors involved in a multi-section course setting, students achieving higher exam scores were shown to rate their teacher higher. Also discovered, whomever the teacher directs a course, to the top or poorer students, the group receiving the most attention will rate the teacher higher (Elliott, as cited by McKeachie, 1996).
2. Alumni, even 10 years after graduation, tend to rate teachers the same as they were rated at the end of the course (Drucker & Remmers, as cited by McKeachie, 1996).
3. Age, sex, class standing, and grade received appear to have little effect on the ratings (Remmers & Brandenburg, as cited by McKeachie, 1996).

Remmers and other researchers (as cited by McKeachie, 1996) also strongly felt:

4. Some improvement occurs as a result of student evaluation whenever the results are returned to the faculty member, but very little.
5. Less improvement occurs if abstract general terms are used on the evaluation than if behavioral items are listed (Murray, as cited by McKeachie, 1996).
6. Discussions of ratings with teaching peers have demonstrated substantial improvements in teaching methods (McKeachie, 1996).

Third in the list of uses identified by McKeachie are personnel decisions.

McKeachie thought the evidence provided by Remmers's validity studies and the replication of these studies at other universities pointed to the valid use of student evaluation data for making personnel decisions. In particular, the evidence provided was:

- (a) Better teachers, as measured by student learning, are rated higher by students;
- (b) Students of highly rated faculty members tend to be more motivated to further their

learning evidenced by their enrollment in more advanced courses in the same field; (c) Change in attitude sophistication are products of highly rated teachers (McKeachie, Lin, & Mann, as cited by McKeachie, 1996); and (d) Marsh (as cited by McKeachie, 1996) found that the instructor's verdict agrees with the students on which of two classes evolved better. Cashin (1996) saw a conflict on what is believed to be the use of student evaluations and how they are actually used. Although there is almost a collective agreement evaluations are to help improve faculty teaching, according to Cashin, closer inspection shows the primary purpose is more often to make personnel decisions.

While it is hoped that after going through the process of collecting data from the students the end result would be faculty instructional improvement (Neumann, 2000) , unfortunately this is often not the case. Numerous studies have shown disagreement on whether or not evaluations actually bring about more effective teaching. Kulik & McKeachie (as cited by Reid & Johnston, 1999) failed to find in their review of the literature that faculty improved their effectiveness based on student evaluation. This could be a result of the failure of faculty to act upon the findings by making changes, rather than the findings providing incorrect data. Algozzine, et al. (2004) suggested a need to improve the evaluation system by surveying faculty members to discover the frequency and the types of changes made in their instructional procedures based on student evaluation results. By not doing the follow-up, this is a break-down in the system of evaluation. Cohen, as cited by Reid and Johnston (1999), also pursued a review of the literature to analyze whether teacher effectiveness changed. In his analysis of 17 studies, he reported modest but significant improvements after student feedback, particularly

when accompanied by consultation between the teacher and those taught (Brinko; and Marsh & Roche; as cited by Reid & Johnston, 1999).

Whether or not improvements will be made appears to be associated with two critical factors. To consider the potential for faculty change, teachers must first recognize that change is needed and then they must be in agreement with the student reported data in order to attempt to modify their behavior or instructional processes (Reid & Johnston, 1999). In essence, the teacher has to agree their own conception or actions regarding their teaching practices were incorrect. If teachers do not agree there is a problem or if they fail to agree the professed concept defines good teaching, change is less likely to occur. But even if change occurs, there are no guarantees it will not be a temporary change. Based on this, Reid and Johnston recommended a new look at the procedures that would provide quality control.

### *Perspectives*

Everyone has an opinion on student evaluations, from how they should be used to whether it is an instrument to be used regardless of the purpose. Spencer and Schmelkin (2002) found formal and informal purposes for evaluating faculty. Students formally provide administrators information to base decisions. Informally, students provide faculty and course information to other students—which would occur regardless of the presentation of an evaluation form. Spencer and Schmelkin stated that students take the information that would be formed from an evaluation event and share it with other students, in an informal rumor-mill manner. Regardless of whether or not a student evaluation is conducted, students will evaluate both the instructor and course and share this information with others. Institutions, faculty, and students all have a stake in the

evaluation system. To provide a useful tool, it is important to understand the perspective of each.

*Institution Perspective.* The trend is strong in the United Kingdom and growing in the United States for institutions to view the student as a customer (Tricker, et al., 2001). Barnes (2001) and Martinson (2000) both viewed the use of student evaluations of teaching as a sign that supports the “student as customer” concept. In addition, more mature students have been found to consider education as a product, which is a significant concept for universities offering distance education programs since mature students often make up a greater portion of those enrolled (Budd, 2002).

There is the question as to whether the student should be viewed as a customer. To answer this question, first a definition of exactly what is deemed a customer would be needed. According to <http://dictionary.reference.com/search?q=customer>, a customer is “one who buys goods or services.” The Merriam-Webster online definition states a customer is “one that purchases a commodity or service (<http://webster.com/cgi-bin/dictionary?book=Dictionary&va=customer>). Since university students are purchasing an education, which can be considered a commodity—something useful and/or valued (<http://webster.com/cgi-bin/dictionary?book=Dictionary&va=commodity>), students can be justifiably called customers. Further, there are similarities between students/institutions and customers/businesses: Institutions care about student satisfaction with university services; students are looking for a return for their money in the form of a degree or education credit; students are making a purchase at a considerable expense and if unhappy, students can “shop elsewhere;” without students, there would no longer be a need for the university and it would cease to exist. If viewed as a customer, this would

make education the product. Those in academia have a difficult time though, comparing the education provided with the value of something that could originate from a production line.

Tricker, et al. (2001) believed there are striking parallels between education and the service industries. For the industry to survive they stressed the need for student expectations and experiences to match what actually occurred. In this regard, students are the consumers and their needs, as well as desires, should be met within reason and without harm. This scenario is the same with businesses and customers—providing what the customer wants within reason and without harm. It is up to the faculty member to balance students' expectations and desires with what they, as the experts, recognize as students needs. Peers and administrative evaluations are also part of the system to see student needs are fulfilled. The needs of the students, as well as reasonable student expectations, can and should be met in each course.

The evaluation was seen by Tricker, et al. (2001) as a source of information that could help educational institutions develop and increase its reputation as a distance education provider, as a tool against the competition, and as a means to retain students. For this marketing tool to be effective, it must capture information such as whether the course met student requirements and expectations. Tricker, et al. acknowledged this was only the first step to improving quality, but in keeping with the “student as customer” philosophy, it is one that cannot be ignored.

Tricker, et al. (2001) designed an instrument to be used in their study by consulting with students on the features of courses students perceived to be of relative importance and on course design and operational aspects. By including students, the

researchers hoped to avoid weaknesses of many studies that exclude or use little student input. Chen and Hoshower (1998), also held the view that students, which hold the role as main characters of course evaluations, were often ignored in studies on evaluation topics. Tricker's, et al. sample consisted of 285 Management and Education students, which represented a return of 61%. Some differences were found between the responses from the different programs, as was discovered with the use of the Spearman Rank Correlation Coefficients. By using the student perception, the study provided these five findings: (a) students were looking for programs that met their professional and personal needs; (b) the flexibility of distance programs was what attracted students; (c) the quality of course materials was a dominate factor, with particular importance placed upon readability and consistent logical structure; (d) high quality contact was important; and (e) relevant assignments, along with high quality feedback, was imperative.

If the student is viewed as a customer, then the student's satisfaction with the course is therefore valuable and should be assessed for that purpose. Keeping this in mind, Twigg (2001) emphasized student evaluation questions should focus on providing information students are seeking, not the quality improvement data that institutions are looking for. On the one hand, university faculty frequently follow the old way of management—"I know what is best for you and it doesn't really matter that you don't agree with me, just do as I say." Students these days have a difficult time following this philosophy. When faculty demonstrate this attitude, students will more likely give a less valid evaluation—based on the students' misunderstanding of what occurred and why. If discrepancies of faculty and student expectations are discussed or explained, students will gain an understanding of what occurred and why, therefore producing a more valid

evaluation. Caution should be used, though, when viewing the student as a customer. Martinson (2000) went a step farther when he stated many in the higher education bureaucracy have adopted the philosophy that the customer is never wrong; realistically, in education as well as industry, this view is not feasible if educators are to provide quality education.

*Faculty Perspective.* If ever one would like to stir up a stimulating debate, just mention student evaluations to one or more faculty. Some faculty members see the practice of using student evaluators as a role change. For the entire semester faculty were the ones who conducted the evaluations; at the end of the semester a reversal takes place and the students appear to be in control and in charge of destinies. It is no wonder faculty feel threatened (Willis, 1993).

The complaints against student evaluations are numerous. A collective list of author complaints can be found in the following list:

1. Lack of reliability and validity (Emery, et al., 2003; Paswan & Young, 2002) due to student inexperience or background as assessors (Chen & Hoshower, 1998).
2. Lack of usefulness (Paswan & Young, 2002).
3. Presence or absence of confounding factors (Paswan & Young, 2002).
4. Incapability of students to identify characteristics/features of effective teaching (Abrami, as cited by Laverie, 2002; Cashin, Seldin, Centra, as cited by Chen & Hoshower, 1998; see also Martin, 1998) due to lack of critical thinking skills (Adams, as cited by Emery, et al., 2003).

5. Incapability of students to separate themselves from biases (Soderberg, as cited by Laverie, 2002).
6. General evaluation form design of “one size fits all” which may not be appropriate for all classes, academic disciplines, and teaching styles (Abrami, as cited by Laverie, 2002).
7. Summative nature of evaluations hinders teaching improvement (Clayson, as cited by Laverie, 2002).
8. Act of student evaluations is demoralizing and inaccurate (Deming, as cited by Emery, et al., 2003).
9. Teaching is too complex to be reduced to numbers (Anonymous, 2000).
10. Promotes gaming amongst faculty (Martin, 1998; Martinson, 2000).

Most of the arguments against student evaluations are research based. Emery, et al. (2003) pointed out evaluations by students fail to take into consideration student, instructor, and class characteristics. Franklin and Theall (as cited by Emery, et al.) mentioned that classroom results with student populations of less than 30 were also suspect due to the small sample size. Another argument is the lack of ability for students to understand or appreciate the advantages of both structured and unstructured teaching. Fear of bad evaluations has been known to stem the creativity and deeper learning that could be gained by using the more unfamiliar style of unstructured teaching (Marks, 2000).

While the literature acknowledges students can provide valuable formative information (Seldin, as cited by Chen & Hoshower, 1998) there are limitations as to the ability of students to judge all aspects of faculty performance (Martin; Seldin; as cited by

Chen & Hoshower). For example, when students rate the different parts of teaching, such as course materials used or instructional methods, specific weaknesses and strengths should surface. It really does not matter if the instructor believes the chosen textbook was ideal for the course if the students find it too difficult to provide usefulness in the learning process. This information can only come from the students and student evaluations provide the medium. Teaching improvement can occur with the cooperation of the instructor but White (2000) stated the instrument must address items the teacher is most concerned about.

Summative information should be derived from a secondary source, not the student. Listed below are a few of the questions to be used in an evaluation system which Martin (1998) identified as necessary when evaluating faculty:

1. What was the extent of student learning as a result of the course?
2. Was the knowledge current, relevant, and integrated to the discipline studied?
3. Did students increase or improve upon their critical thinking ability?
4. Did oral and written communication skills improve?
5. Did the course instruction and materials appear thoroughly conceptualized, organized, and properly sequenced?
6. Does the instructor keep abreast of research in the areas associated with the profession?
7. Was the course taught with integration of related courses, disciplines, and current research?

8. Does the faculty member share information on teaching methods, techniques, and successes with others via publications and presentations at academic meetings?

While the first five questions are questions the attending student should be able to accurately respond to, it could be stated that all eight questions could be used by a secondary source and are well suited to be answered by an administrator, peer, or self-evaluation.

Deming, as cited by Martin (1998) cited student evaluations as providing only student opinions which he deemed as unworthy for consideration. He saw this practice as detrimental to teaching, causing faculty gaming and competition, distraction from the learning mission of the university, and decline of the higher education system. Martin (1998) saw a tendency for higher student ratings when instructors removed difficult material from a course or exam and Martinson (2000) agreed but recognized instructors that play the game do not always receive the highest ratings. The important questions regarding gaming were not addressed by this research, such as: if this technique is used, or is needed, does it not represent the teacher's failure to teach students well enough to earn high scores on their own merit; should not professionalism and ethics of the faculty member prevent the gaming practice; if the faculty member is checked in ways other than student evaluations, would not whether a faculty member's abilities or lack thereof appear elsewhere in a worthwhile evaluation system; and is it not the administrator's job to ensure faculty demonstrate integrity or be punished, as would a student? Martinson believed it was hard for faculty to maintain academic integrity due to the pressures of

student entitlements—but this can be no harder than the pressures on students to make the grade.

While opinions may not qualify as empirical evidence (Martin, 1998), it seems there could be some basis to an opinion if it tends to repeat itself among many students. Opinions do warrant consideration, which is exactly what occurs when administrators review results from student evaluations. Students should be given more credit—with a little information to guide them, they can become capable evaluators. As stated earlier, whether asked or not, students will inform other students of their opinions—so it would be best to educate the students to avoid the sharing of invalid information. Given how faculty feel about student evaluations and the evaluation system in general, it is critical to recognize not only do faculty ideas need to be changed, but feelings, attitudes, and values (Anonymous, 2000). In addition, Willis (1993) made the valid point that course improvement, based on evaluation results, requires faculty to feel an ownership of the evaluation. This would also hold true for the student.

*Student Perspective.* Student evaluations are frequently used to provide data on faculty and pedagogical practices for the courses in which they enroll. Marshall (2000) saw the evaluation process as a means to incite an active role for the students. Even better yet, if students were provided the opportunity to provide suggestions on the development of a student evaluation form, it would provoke the students into a more active role when completing evaluations.

Unfortunately, some students believe the time and effort put forth on completing evaluation forms is not necessarily time well spent. Students often feel there is little significance placed on the opinions they impart by administrators and faculty. In

reviewing past studies, Spencer and Schmelkin (2002) found students believe evaluations are important and students are qualified to provide their opinion on faculty and course activities. Regardless of faculty opinions on student evaluations, student perspectives can and do bring about changes that directly or indirectly affect the entire university and its operations. Not only are students the consumers, but Paswan and Young (2002) considered them smart enough to know when instructors are investing energy and resources in their course.

The definition of quality teaching takes on a personal meaning for everyone, and is based on previous experiences and future hopes (Rapert, et al., 2004). Possible associations with quality include meticulous analytical skills, conceptual clarity, enhanced oral communication, breadth of knowledge, or depth in particular areas (Guolla, O'Brien, & Deans; Seldin; as cited by Rapert, et al., 2004; see also Ulinski & Callaghan, 2002). If higher evaluations are the desired results, then it is imperative educators are aware of the student perspectives.

Chen and Hoshower (1998) found a shortage of research on student perspectives. To add to the current body of knowledge, they conducted a survey using students enrolled in accounting courses at a middle-sized (15,000 to 20,000 total enrollment) Midwestern university. Two objectives led the study: the motivation of students to participate in the evaluation process based on the potential use of the data and whether valid or meaningful information can be collected from evaluations if the students view the instrument as poorly designed. Chen and Hoshower utilized the expectancy theory, developed by Vroom (1964), to inspect students' acceptance of and motivation to participate in a teaching evaluation system.

Chen and Hoshower (1998) chose the expectancy theory model to explain student motivations because of their belief that human behavior results from the assessment of possible actions that will lead to certain outcomes. The amount of effort a person will exert is dependant upon the value of the rewards, the likelihood that rewards will be a consequence, and the likelihood his or her actions will bring about the desired outcomes. Unfortunately with student evaluations, students can very well surmise that despite the effort put forth, the desired outcome may not occur. If this is the case, students will have little motivation to provide valid and meaningful responses. Since instructors with bad evaluations are seen by students as still teaching, and still promoted or tenured, students frequently surmise completion of evaluations provided no reward for completion. If, instead, the purpose of the evaluation is used simply to improve instruction, not the broad use that is currently practiced, then it is possible to surmise that some type of change was made as a result of evaluation feedback. Only then would students increase their motivation to consider the evaluation instrument as a serious application and respond accordingly (Chen & Hoshower, 1998).

The survey conducted by Chen and Hoshower (1998) elicited 190 usable instruments, of which 92 were junior and senior accounting majors and 98 juniors and seniors with majors other than accounting. The approach Chen and Hoshower followed took a different spin from some past studies. Instead of surveying the students on the evaluation system they have experienced, they were provided 16 hypothetical cases, ensuring their background experience would not confuse the issues. For both accounting and non-accounting majors, it was found that improving teaching was valued as the most important outcome of student evaluations, while faculty tenure, promotion, and salary

raise were valued as the least important. As for the second objective seeking motivation to provide valid and meaningful information based on the design, it was discovered that the attractiveness of the evaluation system and the student's expectation that the results will have an overall effect on future events were important to the students.

Spencer and Schmelkin (2002) also discovered only a limited amount of research available on student perspectives and therefore sought to increase data on student attitudes of evaluations. Mailing 500 questionnaires to randomly selected sophomore, junior, and senior ranked students in a private comprehensive university resulted in a return of 347 usable responses. Two main issues were the focal points of the instrument sent: (a) student reaction to the current evaluation tool and a 7-point agreement/disagreement continuum covering their stance on the tool's content and administration; and (b) student overall view of the teaching environment at the university.

According to Spencer and Schmelkin's findings, students, in general, are not reluctant to participate in evaluations and do not fear repercussions but they are unclear as to their contribution to the entire process. Student congruity was found in what they felt should be the purpose of evaluations. Their rankings of purpose were (high to low mean): feedback to the teacher on teaching skill, provide information to other students, tenure, promotion, and merit salary increases for the teacher. High standard deviations demonstrated less agreement on how evaluations were actually used which lead Spencer and Schmelkin to surmise the potential for pessimism about the overall use of the instrument. Student rankings on what they felt was the role of faculty are as follows (high to low mean): teaching, advising students, research in field, service to university, and service to community. In comparison to what students felt on how faculty viewed their

role, teaching remained number one but research shifted to number two. Very little information was provided by Spencer and Schmelkin on the particulars of the student view of an effective teacher although an interesting result surfaced regarding effective teaching and demographics: seniors and graduate students ranked the importance of effective teaching less than their underclassmen.

Holcomb, et al. (2004) claim their study proved students believe traditional evaluation instruments were appropriate for distance courses. Of the 309 students sampled, 54% had experienced a prior distance education course. Since the participants were mentioned as currently enrolled in a distance course, it was unclear as to whether the other 46% had actually experienced a distance course from start to finish and had completed a distance education course evaluation; as a result, this lack of information produces some reservations as to validity of the study findings. Further reservations surfaced when considering the course evaluation form the students used to base their “appropriateness” opinion. It was stated this form was revised with an additional 10 questions pertaining to distance education.

### *Design of Student Evaluation*

No one has ever made the bold statement that student evaluations are perfect or without fault but overall support can be found in the literature for the valuable information that is provided by assessing certain aspects of teaching performance (Chen & Hoshower, 1998). One of the difficulties in using and developing an effective tool is the lack of definition of optimal instructional performance, assessing the actual performance, and identifying the gap separating the two (Rossett, as cited by Sherry & Morse, 1995). Although an evaluation may not perfectly measure a faculty member’s

performance, given the appropriate time and effort, a meaningful and useful approximation should be achieved (Anonymous, 2000).

Student evaluations of courses are needed because only students can relate what was actually experienced during the semester. These instruments take on even greater importance for distance courses; without the face-to-face interaction, student evaluations provide feedback that teachers were not able to discern due to the separation of the teacher and students. Evaluations furnish socially relevant information (Vrasidas, et al., 2003) to faculty that can be analyzed and used to base decisions on conducting courses in succeeding semesters (Starr-Glass, 2005). McKeachie (1996) acknowledged that most forms used are not as functional as they could be if teacher developed or the teacher was involved in choosing specific items for the evaluation related to the particular course being evaluated. To prevent faculty from excluding questions that would identify weaknesses, a better suggestion would be to allow faculty to add specific items to the evaluation form (Emery, et al., 2003; McKeachie, 1996; Naugle, et al., 2000).

### *Learning Theories*

In order to construct an appropriate student evaluation instrument, one needs to consider learning theories. Despite what some may believe, learning theories are not static (Robson, 2000). Technology in education has forced new learning theories to be developed and old ones to be changed. Robson acknowledged that evaluations have the potential to help discover new learning theories.

One can not discuss learning theories without discussing what is hoped to be gained by learning. Expectations of learning activities are that knowledge, skills, and attitudes gained will be used at some time in the future (Halpern & Hakel, 2003). Two

activities are believed to contribute to learning: acquiring knowledge in order to solve problems using current assumptions and the overriding of current assumptions with new schemata or mental models (Nonaka & Takeuchi, 1995). Halpern and Hake (2003) recognized one of the most important roles for teachers is to “direct learning activities in ways that maximize long-term retention and transfer” (p. 41) and provided the following basic learning principles:

1. Practice at retrieval is critical to long-term retention.
2. Better learning takes place when learning conditions are varied, even though this is harder on the learners.
3. Learners learn better when required to take the information as presented and re-represent it in a different format.
4. Previous experience and knowledge affects what and how much is learned.
5. Lectures work better for assessing learning using recognition tests but are least effective for providing an understanding of the information.
6. In-depth learning is better for long-term retention and transfer and occurs when instruction covers a smaller range of topics rather than from textbook cover to cover.
7. Student activities to stimulate learning are determinates of what and how much will be learned, as well as the ability to retrieve the information later and the conditions of which it will be recalled.

Students must be involved in the learning process for learning outcomes to be maximized (Alavi, Wheeler, & Valacich; Leidner & Jarvenpaa; as cited by Christensen, et al., 2001). Determinants of learning also to be considered include what affects the

students' effort to learn: (a) relevance applied to the medium used and the message it contains, and (b) ability to take the material and make something meaningful (Saettler, as cited by Sherry, 1996).

Bruffe (1999) related current higher education's foundational view of the knowledge process as the transfer of knowledge from the teacher (full tank of knowledge) to the student (running on empty). This knowledge transfer generally occurs in the same manner as was experienced by the teacher (Bruffe). Regrettably this may not be the most appropriate method, especially if the delivery of instruction does not take place in the typical classroom as was most likely the current teacher's environment. In addition, a variety of approaches to learning are more common now than were experienced in the past.

Until this century, in the United States the constructivist approach to learning was less dominant than the behaviorist position (Diggory, as cited by Diez, 1997). Instead, the behaviorist theory that students should work with new data, ideas, and skills during each session took priority over the constructive belief that data, ideas, and skills should be interrelated as parts of a system (Marshall, 2000). In the constructivism model, the student creates his or her own knowledge via activities and organization (Reese & Overton, as cited by Marshall, 2000) as they work and rework their understanding (Perkins, as cited by Robson, 2000).

The constructivist philosophy utilizes several teaching methods that work well in distance learning environments according to Macdonald (2004). He listed collaborative learning (McConnell, as cited by Macdonald, 2004), activity-based learning (Macdonald & Twining, 2002), resource-based learning (Macdonald, et al., 2001), and problem-based

learning (Ronteltap & Eurelings, 2002) as four methods associated with the constructivist approach. Marshall (2000) warns of the need to thoroughly examine behaviorist and constructivist when designing distance learning situations. Due to the differences between these two approaches to learning, as well as differences in the design, delivery, assessment, and evaluation of distance education, Marshall believed new education policies and practices were warranted. Vrasida, et al. (2003) concurred with Marshall's (2000) point of view, adding research and evaluation of distance education were vital for expansion and improvement in this field of education.

With the many theories of how people learn, Robson (2000) advised a more concentrated look at the relationship between learning theory and technology. Marshall (2000) acknowledged that during the onset of technology based learning, the behaviorist theory that "one size fits all" was followed but a change toward engaging students, making them more responsible for constructing their own knowledge appears to be the current trend. With this movement, Macdonald (2004) recognized the need for students to develop critical and analytical abilities to work as a self directed learner at a possibly earlier stage in their college career, which results in the need for educators to consider their course design and outcomes based on these new characteristics of the college student in the traditional classroom. Distance education is not only changing the way students are learning but also the time span normally required to develop higher learning skill levels.

### *Effective Teachers*

Also basic to an evaluation instrument are the characteristics of effective teachers. One must recognize what characteristics an effective teacher has in order to develop an

evaluation that verifies effective teaching took place. According to Fraenkel (1995) effective teachers appear to behave and teach in remarkably similar ways regardless of where, what, or who they teach.

The classic Greeks used higher learning for the purpose of preparing individuals to be successful in life (Farmer, 1999) and faculty hold an important role in this preparation. While it has been argued that the job they perform is an art, not a science (Highet, as cited by Laverie, 2002) this concept has altered somewhat; studies now suggest it is as much a science as an art (Centra, as cited by Laverie, 2002). During the 1990s, views in the United States on teaching effectiveness took on a new focus (Simpson & Siguaw, 2000). Educators witnessed movements of state government toward connecting institutional funding to measurable outcomes and viewing students as customers (Simon & Soliman, 2003; Simpson & Siguaw, 2000). Institutions avidly supply funds for improving the quality of teaching but unfortunately there is no clear criterion to use as a checklist for the effective teacher (Brown, et al., as cited by Reid & Johnston, 1999) and McKeachie (as cited by Laverie, 2002) and Martin (1998) despaired there will ever be agreement on such elements. Several suggested definitions of good teaching found in the literature include: “the ability to transform the specific concepts of a discipline or subject into terms that can be understood by a group of students” (Shulman, as cited by Laverie, 2002, p. 105); the ability “to develop a motivation for learning, a basis of learning to build on, the skills or ability to apply their learning” (Naugle, et al., 2000, p. 135) and the expectations that students will successfully use their skills and learning in future endeavors (Naugle, et al.). Fraenkel (1995) declared effective teachers are consistent in all manners of teaching, regardless of where, what, or who they

teach, which agrees with Centra's (as cited by Laverie, 2002) statement that quality teachers are committed to individual learning, and are knowledgeable in not only their subject matter, but also in teaching strategies and learning theories.

Just as scholars can not collectively agree upon the characteristics of effective teaching, faculty and students also fail to unanimously agree on the elements. In a two-phase study performed by Reid and Johnston (1999), phase I involved the pursuit of discovering the elements of good teaching considered by faculty and then by students with the purpose of improving teaching effectiveness; in phase II, the authors were interested in whether teachers had an intention to change in correlation with student's perceived needs.

Phase I required 24 faculty to identify 4 university teachers and 24 students to identify 6 university teachers that represented a mix of the best and worst in teaching. Each participant was charged with assigning a triad of cards associating teaching elements with the teacher, with two alike and one different. Faculty and students created almost the exact amount of constructs, with faculty constructs numbering 211 and students a total of 215. While some of the characteristics of effective teachers were similar in rankings and some even overlapped, the characteristics were not identically ranked by faculty and students. Feldman's (as cited by Anonymous, 1999) study, with a correlation of .71, also found similar, but not exact, views of effective teaching were held by students and teachers. Interesting, lucid, sensitive, and organized were shared by both faculty and students as highly desirable characteristics but differences appeared in the importance faculty placed on research and students placed on approachability.

In Phase II of the study, students were required to rank, in order of perceived importance, the six identified dimensions derived from Phase I: depth, clarity, interaction, interest, approachability, and organization. Faculty were assigned the same task as the students, but were also required to take 24 phrases describing a lecturer and apply the phrases toward describing themselves. For the third part of this section, faculty were required to rank the importance of objectives derived from the six dimensions discovered in Phase I. Findings from Phase II suggested the effectiveness of student feedback from student evaluations on changing teacher behavior was weak unless the “teacher’s intentions to change . . . coincides with the teachers’ pre-existing concept of what is good teaching” (p. 279).

As a result of this study, Reid and Johnston (1999) recommended: faculty need to become more informed as to students’ perception of good teaching and students need to become more informed of why particular teaching techniques are used. If student evaluations do not affect long-term or permanent changes as a result of the feedback, then higher education must be cognizant of this result and plan accordingly to affect the desired changes. Algozzine, et al. (2004) warns that evaluation questions should focus on characteristics associated with effective teaching, with care taken not to include other irrelevant factors.

Tobin (2004) believed it is imperative to construct a list of principles for online instructor evaluation. Tobin looked toward Graham, Cagiltay, Lim, Craner, and Duffy’s *Seven Principles of Effective Teaching: A Practical Lens for Evaluating Online Courses* (2001), adapted from Chickering and Gamson’s *Seven Principles for Good Practices in Undergraduate Education* (1987). Keeton, Sheckley, and Krejci-Griggs also developed

principles of effective practices, after conducting meta-analyses of 20 years of research on different principles of instruction (Keeton, 2004). The eight principles that resulted from this analysis partially overlap and supplement Chickering and Gamson's seven principles. In 2001, a pilot study was conducted by Keeton, et al. to identify the extent these eight principles were actually used by eight faculty members. The faculty members were chosen as participants by their respective Deans and had either been recognized for their excellence in teaching or scored 4.75 or higher on evaluations. Key findings from this study found that effective faculty use five or more of the full array of instructional practices. Table 1 lists Chickering and Gamson's (C&G) *Seven Principles for Good Practices in Undergraduate Education* (Keeton), Graham, Cagiltay, Lim, Craner, and Duffy's, (GCLC&D) *Seven Principles of Effective Teaching: A Practical Lens for Evaluating Online Courses*, and Keeton, Sheckley, and Krejci-Griggs' (KS&G) eight principles and practices of the largest effective learning gains (Keeton).

Table 1

*A Comparison of Effective Teaching Principles*

C&G <sup>ab</sup>	GCLC&D <sup>cd</sup>	KS&G <sup>ae</sup>
Good practice encourages student-faculty contact.	Instructor should provide clear guidelines for interaction with students.	Make learning goals and one or more paths to them clear.
Good practice encourages cooperation among students.	Well defined discussion assignments facilitate meaningful cooperation.	Use extensive and deliberate practice.
Good practice encourages active learning.	Students should present course projects.	Provide prompt and constructive feedback.
Good practice gives prompt feedback.	Instructors need to provide two types of feedback: information feedback and acknowledgement feedback.	Provide an optimal balance of challenge and support that is tailored to the individual student's readiness and potential.
Good practice emphasizes time on task.	Online courses need deadlines.	Elicit active and critical reflection by learners on their growing experience base.

(table continues)

Table 1 (continued)

C&G <sup>ab</sup>	GCLC&D <sup>cd</sup>	KS&G <sup>ae</sup>
Good practice communicates high expectations.	Challenging tasks, sample cases, and praise for quality work communicated.	Link inquiries to genuine problems or issues of high interest to the learners (thus enhancing motivation and accelerating their learning).
Good practice respects diverse talents and ways of learning.	Allowing students to choose project topics incorporates diverse views.	Develop learners' effectiveness as learners early in their education.  Create an institutional environment that supports and encourages inquiry.

Note. <sup>a</sup>Adapted from “Best online instructional practices: Report of phase I of an ongoing study,” by M. T. Keeton, 2004, *JALN*, 8, p. 76. <sup>b</sup>Chickering and Gamson’s (C&G) *Seven Principles for Good Practices in Undergraduate Education*. <sup>c</sup>Graham, et al., 2001.

<sup>d</sup>Graham, et al. (GCLC&D) *Seven Principles of Effective Teaching: A practical lens for evaluating online courses*. <sup>e</sup>Keeton, et. al. (KS&G) eight principles and practices of the largest effective learning gains.

Also in Keeton's, et al. (2004) study, the participants accentuated certain aspects of the teaching and learning process. It was noted that these selected instructors emphasized communication, empathy, personalization, keeping student's interest and attention, class organization, and staying on top of the literature and research in their respective areas. It is important to note though, the faculty failed to mention learning outcomes for students.

Achtemeier, et al. (2003) created questions pertinent to online course evaluations after reviewing the *Principles of Effective Teaching in the Online Classroom*. Their questions are as follows:

1. Were the course goals, learning objectives and outcomes made clear to you at the beginning of the course?
2. Did you feel you had the skills and equipment necessary for online course instructions?
3. Was there adequate technical support if you encountered difficulties?
4. Was the format and page design of the online course easy to use?
5. Were there sufficient instructions given for you to complete all assignments?
6. Did you feel hindered in your online course experience any way? Please describe.
7. Were standards for evaluation of assignments made clear?
8. Did you receive prompt feedback on your completed assignments?
9. Did you participate in online conversations with your instructor during the course?

10. Did you participate in online conversations with your classmates during the course?

11. What learning activities most influenced your learning in this course?

While many of these questions are also appropriate for evaluating traditional courses, it is not recommended that they be added to traditional evaluations unless reworded for the traditional classroom environment.

Successful instructors of distance education courses inform their students about the program course, its objectives, concepts, ideas, and outcomes (IHEP, as cited by Keeton, 2004). Keeton, et al., included these along with stressing the learning process in their eight principles (as cited by Keeton). An outcome of Keeton's, et al. study produced strategies for instructors to accomplish the eight principles devised. Samples of these strategies are as follows:

1. Make learning goals and the path to them clear. Strategies: The instructor makes intended learning outcomes clear. Goals described in the syllabus are further clarified via discussion. Goals are clarified by the use of pre-tests or exercises with assessment tools used to document learning outcomes. Students are encouraged to restate learning goals into their own words. Goals and paths are continually reviewed, revised, or clarified as the course proceeds. A timeline for learning is clearly spelled out with explicit milestones toward completion.
2. Use deliberate practice and provide prompt constructive feedback. Strategies: Time on task is always sufficient to the needs of each individual student. Skill building occurs in manageable steps. Learners are actively engaged in

determining their own learning objectives and thus become co-owners of the learning agenda. Deliberate practice is incorporated in learning efforts.

Performance is continually assessed. Progress on learning goals is continually assessed. Feedback is continually provided throughout the learning process.

Students' own self-assessments of progress and performance are elicited.

Feedback about student performance and progress is provided frequently and in detail. The instructor consistently notices and remarks on students'

effectiveness in their learning efforts. A feedback strategy or process is

articulated and agreed upon with learners. Students are made aware of tools

and resources that can speed up or enhance their learning. The instructor's

expertise is made available to students who need assistance in distinguishing

relevant from irrelevant information. The instructor recognizes and adapts to

individual differences in students (e.g., different styles and strengths or

weaknesses in learning). Students get resources and tools needed to overcome

obstacles to learning goals.

3. Provide an optimal balance of challenge and support that is tailored to the individual students' readiness and potential. Strategy: The instructor assesses the students' background and readiness for the course. The instructor challenges individual students based on differences in their prior knowledge and skill levels at the outset of the course. The instructor provides specific supports related to the risks identified for each student in the course. The instructor assists students when they most need help with the course work.

Students in need of remedial work are required to seek special services recommended by the instructor.

4. Broaden the learners' experience of the subject matter. Strategy: Students are encouraged to incorporate their individual experiences (e.g., on the job or personal) in their studies. Students are introduced to cultures or subcultures that may be new to them. The instructor uses role-playing or simulations to supplement learning. Students are exposed to different applications of the course subject matter. Students' experiential background is used to help make the subject matter.
5. Elicit active and critical reflection by learners on their growing experience base. Strategy: Students are encouraged to consider alternative interpretations of their experience. The instructor provides opportunities for collaboration. Students are encouraged to explore alternative problem-solving strategies. Students check their own and others' inferences for validity. Students are encouraged to question and monitor the credentials of alleged authorities in the field. Students are encouraged to question assumptions made by others and themselves. Students conduct research or case analyses that are well-designed. Students are encouraged to think about the effectiveness of their own thinking.
6. Link inquiries to genuine problems or issues of high interest to the learners to enhance motivation and accelerate their learning. Strategy: The instructor learns of students' problems relevant to the course and uses this information in developing instruction. The instructor poses learning tasks in terms of solving problems or using opportunities rather than in terms of accumulating

knowledge. The instructor draws actively upon the current or earlier work life of the students. The instructor elicits student analysis of what worked and did not in their problem-solving experiences.

7. Develop learners' effectiveness as learners early in their education. Strategy: Students are encouraged early in the course to be aware of the importance of being skillful learners. Students are made aware of the characteristics of highly effective learners. Every assignment is designed to enhance students' skills as learners. Students are encouraged to monitor their own learning habits and evaluate their efforts to become more proficient learners. Students' skills as learners are assessed at the beginning of the learning experience. Students are encouraged to use tools and skills that enhance their learning while also saving their time.
8. Create an institutional environment that supports and encourages inquiry. Strategy: The instructor actively and enthusiastically encourages students to question ideas. The instructor invites and responds amicably to student criticism or questioning of the instructor's view. The instructor assists students in their exercise of the discipline-specific methods of inquiry.

Many scholars see value in the use of evaluations by students; it is the students that are present during good- and off-times for the professor (Cross & Angelo, as cited by Laverie). Evaluations fulfill an even more special need when students take their courses from a distance. Information from student evaluations may be the only opportunity for feedback on teacher, program, and campus services for distance courses. Teaching at a distance brings about special pedagogy considerations, especially in regard to the use of

technology. There is a proper way of integrating technology and pedagogy in order for distance education to be a viable learning experience (Palloff & Pratt, as cited by Holcomb, et al., 2004; see also Hara & Kling, 2000, Knowlton & Weiss, 2000, and Regalbuto, 1999). Worley (2000) cited IHEP's warning that technology is not the 'be all, end all' of distance education.

#### *Evaluation Format or Structural Features*

Student evaluations are frequently structured in a manner that allow easy scoring, which Marshall (2000) referred to as the "factory model" used by the US government intelligence tests. Unfortunately, the easy-to-score designs (i.e., bubble sheets) fail to provide detailed information that can present a clearer and more holistic picture (White, 2000). Bubble sheets do not require reading or actual contemplation of the questions before a response can be given. White believed higher education places too much energy and expense in the use of bubble sheet evaluations that provide very little benefit to anyone. Starr-Glass (2005) saw the need for evaluations to be investigative and probing, not simply looking for confirmation.

Evaluations are created with a variety of, but sometimes shared, instructional dimensions. Samples of dimensions used in a few of these evaluations are:

1. Instructor involvement, student interest, interaction between instructor and student, course demands, and course organization (SIRS Research Report 2, as cited by Paswan & Young, 2002).
2. Interaction between instructor and student; course difficulty, workload; course organization, planning; clarity, communication skills; grading, examinations;

student self-rated learning (Centra, Braskamp, & Ory, as cited by Anonymous, 1999);

3. Student-student and instructor-student interaction; course development; course structure; institutional support; student support; value; and flexibility, convenience (Twigg, 2001).
4. Instructor enthusiasm; group interaction, individual rapport; breadth of coverage, assignments/readings, workload difficulty; organization, clarity; examinations, grading; and learning, value (Marsh and Marsh & Dunkin; as cited by Algozzine, et al., 2004). Griffin, et al. (2003) expressed the need for evaluating the broader range of learning experiences. In addition to the dimensions listed, they also recommended assessment of learning resources, the learning community (student perceptions of the social experience of learning), and graduate qualities (qualities typically associated with higher order outcomes).

The change in education that distance education brings to higher education also creates the opportunity to change the entire evaluation system. Due to doubts that student evaluations actually reflect faculty performance and in the hope to offset the possibility of professor influence of getting higher ratings with typical student evaluations, an alternative method was used in Simon and Soliman's (2003) approach to evaluating an instructor's performance. Their study consisted of a sample size of 417 sophomore students enrolled in an information system concepts course who were surveyed twice during the semester. The first survey served as a pretest and the last survey, a posttest. This method allowed the researchers to assess student perceptions of the subject matter

before and after taking the course. Responses from only 328 students were considered valid, but reasoning behind invalidating the remaining 89 was not disclosed. Questions were created by writing new questions and adapting questions from available scales, with only six questions selected. It was not mentioned whether the six questions chosen matched the objectives established by the course under study. If the objectives were not considered in the development of the questions, there is little assurance the questions were valid questions to be asked when assessing instructor effectiveness.

The Wilcoxon test was used to analyze the effect of the instructors teaching effectiveness, which is commonly used for pre- and posttests of subjects. Results of the survey responses showed four of the seven instructors studied had a significant impact on student perceptions regarding the business aspect. Only one instructor was judged to have an effective teaching style and strategy. Results such as these can aid in directly identifying the areas in need of improvement, the first step in building a plan of action.

#### *Improving Use and Reliability*

Several factors play into improving the use and reliability of student evaluations. Most of the literature has focused on the principles, student motivation, questions used, and the scoring. Only since the early 1990s has the use of traditional evaluations for distance courses truly become a focused question in the literature.

With the advent of distance education, little effort was required to once again assign an additional task to the existing traditional evaluation instrument—the task of assessing courses taught at a distance. Holcomb, et al., (2004), Shuey (2002), and Willis (1993) all acknowledged the same major concepts used in well-designed traditional course evaluations were valid for distance courses but stated that alterations and

amendments were needed. The use of technology, the amount and quality of student interaction with both the instructor and other students, class formats, and support services (Willis) demand the development of new standards and criteria for teaching courses at a distance (Holcomb, et al.; Shuey; Willis). Responsibilities and the level of emphasis placed on shared features of traditional and distance teaching are changed in the distance classroom and thus should be changed in its evaluation (Anonymous, 2000).

### *Evaluation Principles*

Palomba and Banta were cited by Achtemeier, et al. (2003) as creating a list of principles considered suitable for traditional or online assessment. In either situation:

1. Assessment should be preceded by explicitly stated outcomes.
2. Assessment should distinguish between formative and summative uses.
3. Assessment should have strong faculty buy-in.
4. Multiple methods should be used.
5. Assessment results should be shared and used.
6. The assessment itself should be assessed.

To add to Palomba and Banta's principles, consideration should be given to Willis' (1993) eight philosophies on how evaluations should be conducted:

1. Students should be made aware that the evaluation data will not be considered in assigning grades.
2. With the use of formative evaluation, students should be informed why information is being collected and how it will be used.
3. With the use of summative evaluation, students should be informed where, when, and how they may review the results of the evaluative effort.

4. Summative evaluations should never preclude major tests or assignment deadlines.
5. Evaluations should be strictly anonymous.
6. Detailed responses should be encouraged without using threatening large blocks of blank space.
7. Evaluation questions should be brief and focused.
8. Appropriate quantitative and qualitative evaluation techniques should be followed.

Several of Willis' (1993) philosophies are considered student motivators to encourage accurate and responsible responses. Spencer and Schmelkin (2002) also stressed the need for faculty awareness of student ambivalence toward the ratings and their cynicism toward the evaluation process. Methods to improve student motivation were cited by Chen and Hoshower as: (a) listing the uses of the data collected from evaluations on the evaluation instrument; and (b) informing students how previous feedback was used, i.e., cite on the course syllabus one recent example or disseminate through the student senate, newspaper, or web site. To prompt students to provide meaningful input on evaluations, visible results must be demonstrated.

While student evaluation instruments may be touted as a cheap means of evaluating faculty (Emery, et al., 2003), educators devote a considerable amount of the time and effort conducting student evaluations and the ultimate goal of using the information provided must always be kept in sight. Emery, et al. (2003) conducted a qualitative and quantitative literature review of the use of student evaluations as a measure of teaching effectiveness. As a result of this study, the researchers found an

almost universal agreement that the student evaluation of faculty was used to help faculty improve their performance but another purpose is also present which affects personnel decisions. With an agreement that student evaluations should be a part of the decision making process, the researchers also take a stand that these evaluations not be the only consideration. Since student evaluation responses are unequivocally used to make important decisions, focus was placed on the improved use in the researchers' conclusions. The following list of recommendations was proposed by Emery, et al., as ways to improve the use of student evaluations:

1. Multiple data sources must be considered.
2. Instruments should be worded to assess achievement rather than student satisfaction.
3. Ratings less than satisfactory should require comments to ensure credibility.
4. Since students are assuming the role as evaluator, proper training should be provided and freshman seminars would offer an excellent opportunity for such training.
5. Evaluation systems should be flexible, avoid comparison, and apply to the unit and the faculty being evaluated; keeping in mind that "using the same evaluation system for everyone almost guarantees that it will be unfair to everyone" (Emery, et al., p. 44).
6. Diversity is a requirement of evaluation systems.

Recognition must be given that there are many different ways to effectively provide instruction (Emery, et al., 2003). Diversity in teaching provides for the discovery of methods that may work best. If faculty used identical methods to teach, how would

new improved methods ever be discovered? The emphasis should be placed on whether the method worked and how well it was received.

### *Evaluation Questions*

Data collection is multi-faceted and its value should never be understated. Critical to the evaluation process is asking the right questions; using the proper structure, language, and number; and understanding the scoring issues. Tricker, et al. (2001) stated the problem with evaluation is that it provides answers only to the questions that are asked.

Distance education begets the need for questions not typically found in traditional evaluations. Robson (2000) recognized the importance to address the interaction of student and technology since this is a relationship that can clear or block pathways to learning. Communication channels also differ from the traditional classroom environment. Benigno and Trentin (2000) described the online distance education communication channel as a collaborative learning model. Communication is considered by some to be the most critical factor that emerges for increasing the effectiveness of online instruction and student support (Coppola, Starr, & Rotter, as cited by Easton, 2003).

Centra (as cited by Simon & Soliman, 2003) considered the need to evaluate the instructor's characteristics as important. Although these questions have created a great deal of controversy among the faculty, he suggested student surveys should measure the following characteristics: (a) ability to communicate, (b) attitude toward students, (c) knowledge of the subject matter, (d) organizational skills, (e) enthusiasm, (f) fairness, (g) flexibility, and (h) encouragement of students to think for themselves.

In turn, Twigg (2001) believes the questions should take into account the faculty's perspective, meaning questions should be created with the use of a set of principles that have earned a consensus as good practice. Contradictory to Twigg's view, Tricker, et al. (2001) felt students are the ones that should identify the questions that should be asked. Without student input, Tricker, et al. believed the process would supply biased data and fail to reveal students' true views of their experience. Starr-Glass (2005) also agreed with Tricker, et al., citing the constructivist approach to learning encourages students to create their own unique meaning but typical evaluations veer away from this intention by asking about course designer defined objectives. Conflicting with the Starr-Glass view, Paswan and Young (2002) surmised course objectives must be included in the use of student evaluations. Their study failed to prove this observation. In fact, what was proven as for the inclusion of instructor objectives was if an instructor attempted to cover too much material, in a quick manner, or assigned difficult or time-consuming tasks, he or she were apt to receive a negative rating.

Design issues of questions are also present in the development of evaluations. Improperly designed questions propagate invalid responses. Review of the literature recommends the development of standards for evaluation questions (Achte-meier, et al., 2003). First, questions should be simply worded with care taken to avoid the use of leading or biased inquiries. Second, logical order should be used in the layout. Third, questions should be written in a manner that allow them to stand alone, cover only one issue, and provide appropriate response categories (Achte-meier, et al.). Frequently evaluations are created in a manner that provides for the ease of compilation. This method does not always allow for extracting the best response. For example: if the

response choices provided are A=Always; B=Often; C=Sometimes; D=Seldom; E=Never; and F=NA (not applicable), none of these choices can accurately answer the question, “I was informed on the first day of class what was required of me.” Evaluations devised in this manner leave the evaluator frustrated and leads the respondent to believe the evaluation is invalid and only conducted because of requirements. Tyler’s (2002) article discussed the appropriate questions to ask or not to ask in evaluations. Some of her suggestions were to: (a) use language that fits the audience; (b) avoid jargon; and (c) structure the questions in a way that requires a judgment call on an observable event, not prediction. Morrel-Samuels (as cited by Tyler, 2002) stressed the fact that questions should not be asked if the information will not to be used. For questions involving student self-ratings, Twigg (2001) recommended the use of very clear questions that address behaviors and attitudes while shying away from the use of respondent inference. It is impossible to understand Twigg’s instruction to avoid inference since evaluation responses are loaded with students’ deductions on the events that occurred.

Starr-Glass (2005) had an innovative idea regarding student evaluations and the use of language. It was his belief that words associated with a course can “reveal experiences, expectations, and reactions that might otherwise have been unrecorded” (p. 201) and all that is needed is to give the student the voice and opportunity to uncover aspects of the course. There were three parts to the evaluation used in the Starr-Glass study: (a) word associations created by the students defining the ideal course and a list of words to be associated with the course just completed (i.e., challenging, interesting, revealing, helpful, analytical); (b) a brief written simile; and (c) a map drawn to demonstrate issues and stages that were experienced by the student. Starr-Glass

recognized and acted upon an opportunity to collect information on students' experiences of their engagement in the learning process instead of just an objective-based perspective. His goal was to devise a method that encouraged student reflection and communication of those experiences in addition to supporting evidence of the course improvements needed. While his study is not generalizable, it is worthy for consideration in further studies.

The format of the evaluation must be given due consideration to ensure validity and accuracy. Twigg (2001) noted that participants in a survey have a limit to the number of questions they will answer. This limit is estimated to be around twenty questions. Given the amount of information needed, it will be extremely difficult to create just one end-of-semester evaluation to gather the necessary data. Other formatting tips were provided by Tyler (2002): (a) simple, uncontroversial questions should be placed first; (b) evaluations should be kept short; (c) summary questions should be placed at the end of the block of related questions; and (d) avoid mixing rating and ranking questions, or better yet, do not use ranking questions.

One method to assist in reducing the number of questions included in student evaluations is to avoid using this instrument for multiple purposes. The length of the evaluation can be shortened if there is only one agenda. Starr-Glass (2005) cautioned the evaluation instrument is appropriate for only certain kinds of decisions. The water becomes too muddy when including extraneous content in the design of the instrument. Evaluation designers must strive to collect only relevant information. This can be accomplished by using only one purpose, understanding that purpose, and selecting only questions that will fulfill that purpose.

Keeping in mind the shortened length of an evaluation is important, researchers are pressing for a more holistic evaluation tool. Pascarella (as cited by Griffin, et al., 2003) recognized that there was more to the quality and outcomes of undergraduate study than teaching quality. If experiences outside the classroom must be taken in account when developing the evaluation instrument and the evaluation length is to remain short, then the evaluation designer faces the complicated decision of what questions are not to be used to include this new aspect.

When making the decision on what questions to use, it is imperative to identify exactly what is to be measured (Bipboye, et al., as cited by Martin, 1998). All characteristics of the phenomenon, such as inputs, processes, and outputs, must be considered. In addition, the relationships between the phenomenon to be measured and the measurements themselves should be analyzed. Martin advised the evaluation tool is flawed and the measurement is invalid if characteristics of high-quality teaching appear to cause low student ratings (or vice versa). This and other problems with the tool could be discovered by analyzing the relationships.

The IDEA (Instructional Development and Effectiveness Assessment) Student Ratings of Instruction system places the focus on student learning rather than teaching techniques or personality. Taking in consideration there is not one correct method for teaching, the IDEA system instead compares instructor objectives with the progress of students meeting instructor defined goals. According to the IDEA Center, no other student ratings instrument is more valid or reliable (Retrieved September 18, 2006 <http://www.idea.ksu.edu/StudentRatings/index.html>).

While using the proper questions is one way of ensuring valid data, reliability of the evaluation instrument is also dependent upon the number of raters and the consistency found in the responses over time (Braskamp & Ory; Centra; as cited by Anonymous, 1999). Consideration, when conducting a survey, should be given to the IDEA system instrument which had the following median reliabilities for its 38 items: for 10 raters- .69; for 20 raters- .83; for 30 raters- .88; and for 40 raters- .91. The use of data received from less than ten raters was advised against (Anonymous, 1999).

Deriving an overall rating was strongly disagreed with and for valid reasons. Dissimilar items can not be grouped together and rated with one score with any accuracy (Anonymous, 1999). Take the example of a novelist. If a novelist writes highly regarded suspense novels and is given (from a ten star rating scale) a ten star rating, yet his travel novels are not so well received and receive only a two star rating, could it be said the novelist is, on average, a six star writer? What actual benefit is there to an overall rating? Grouping items can aid in improving instruction, while an overall rating fails to provide information on specific behaviors (Cohen; Cranton & Smith; McKeachie; as cited by Algozzine, et al., 2004). Teaching is a multi-dimensional activity which can not be accurately assessed with a single score (Algozzine, et al.).

Student evaluations provide viable and useable information in regards to instructor and course experiences. It has been documented by Marsh (as cited by Achtemeier, et al., 2003) that accurate data can be provided by students regarding their experiences and their satisfaction. In a longitudinal study, end-of-course ratings were compared with ratings by the same students years later (Overall & Marsh, as cited by Anonymous, 1999). The study found an average correlation of .83, proving that ratings of

the same instructor tend to be similar over time. It is no wonder, despite strong opposition and criticism, student evaluations continue to be used as one of the most important sources of information on faculty and course experiences.

Thus far, only student evaluation questions have been discussed. Administrators also have questions that need answers in order to complete the evaluation system process. Regalbuto (1999) suggested the following questions were critical in assessing online education:

1. Was innovation present in the teaching style?
2. Was the learning competence equal or superior to that of a traditional classroom?
3. Were the students engaged in the material?
4. Were there interactions between professors and their students, and between the students themselves?
5. Was technical support readily available?
6. For online programs that are more extensive, such as entire degree programs, are the signs of academic maturity present?

#### *Qualitative vs. Quantitative Data Collection*

In the beginning there were quantitative-based evaluations. Willis (1993) acknowledged that quantitative methods can create obstacles for the distance education evaluator. He reported a less than 50 percent return rate for quantitative surveys and blamed the design for allowing unique perspectives and insights to go unreported. This is not believed to be the case with the use of qualitative methods. Rapert, et al. (2004) agreed and went on to describe qualitative approaches as providing rich depictions of the

events and experiences that transpired. Simonson (1997) concurred with Willis and Rapert, et al. and stated a change to include a more holistic method in evaluating distance education programs has occurred during the past 10-15 years, with the inclusion of a qualitative approach.

Willis (1993) believed the following questions should be asked when considering the correct instrument:

1. When should qualitative and quantitative methods be used?
2. When are qualitative results generalizable to other distance education environments?
3. What quantitative and qualitative methods are appropriate for data collection and analysis and how should they be implemented?
4. How can the number of evaluations completed be increased?
5. What questions will provide information on whether the distance education and technology were effective?

The inclusion of a qualitative approach will allow educators, administrators, and policy makers to make more informed decisions about the design and implementation of school programs (Vrasidas, et al., 2003).

### Summary

While distance education is not expected to replace the traditional classroom, it is an important alternative delivery method for college campuses. In order for distance education programs to fulfill their potential, it is critical that institutions use the proper student evaluation instrument and develop a viable evaluation system. The literature review demonstrated a palpable interest and explicable need for additional research in

evaluating distance education programs. By examining the differences between traditional and distance education courses, the review pointed out the reasons a different evaluation system and instrument for distance education courses is warranted. Identifying the issues that help make distance education a success demonstrated what should be evaluated to ensure the achievement of a worthwhile program. Researching the purposes, uses, and rationale of an evaluation provided the direction needed for developing an appropriate and meaningful tool. Taking a critical look at the design of student evaluations resulted in an accumulation of viable recommendations for creating an improved evaluation instrument. The literature reviewed helped to identify characteristics to be included when developing a distance education system.

Chapter 3 provides a description of the proposal research design and methodology of this study. Details of the population and sample, data collection and instrumentation, as well as the method of data analysis are provided. In Chapter 4, a statistical analysis on the survey data collected is presented. Relationships of the survey data collected and the review of the literature are shown in Chapter 5, along with implications and conclusions of the study and future research recommendations.

CHAPTER 3  
RESEARCH DESIGN AND METHODOLOGY

*Introduction*

Distance education has provided more optimistic opportunities to many higher education institutions. It is an avenue which provides access to an education that otherwise would not be possible for some students. While it is an alternative to traditional delivery, the standards are the same. In order to maintain these standards, evaluations of the courses, instructors, programs, and institutions are necessary. Unfortunately, many institutions have the “one size fits all” attitude toward evaluation. This is evident by the frequent use of the traditional course evaluation for the assessment of distance education. Due to the differences in the two types of delivery, the employment of the traditional evaluation system when evaluating distance education demonstrates improper use. Failure to collect valuable information specific to distance education can result in the lack of improvements and possible dissolution of the program. The literature review conducted in this study identified features that were similar, but most importantly, ones that actually distinguish distance education courses from traditional education courses. In addition, the evaluation process was scrutinized to discover current issues that would have an adverse effect on an evaluation system for distance education. Understanding what is “broke” is the first step toward the development of a solution. Table 2 provides a list of issues taken from the review of the literature that are related to the evaluation of both traditional and distance education courses. While Table 3 lists issues found in the literature review to be directly related to the evaluation of distance education, in some cases the issues could also be applied to traditional courses. For each issue listed, authors

that discussed these issues are identified. Due to the length of the name for each issue, the issues are represented by letter. For Table 2, *A List of Issues for Evaluations of Traditional & Distance Education Courses*, the categories are identified as follows:

- A. The motivation of student to participate in evaluations.
- B. More than one best way to teach.
- C. Not qualified judges.
- D. Intended use of evaluations.
- E. View of student as a customer.
- F. Inability to define good teaching.
- G. Emphasis on course, not student.

For Table 3, *Issues of Evaluations Directly Related to Distance Education (& Possibly Traditional Courses)*, the categories are identified as follows:

- A. Traditional course modifications needed when used for distance education courses.
- B. Examination of different learning theories.
- C. Current distance education evaluations based on historical practice, not careful analysis.
- D. Changing ideas, feelings, attitudes, and values.
- E. The possibility of biased student feedback.
- F. Complex elements of distance education.
- G. New distance education business plans.
- H. Considerations of evaluation design.
- I. Identifying the distance education student.

- J. Data collection methods and measures used.
- K. Distance education quality.
- L. Development of the evaluation system.
- M. Distance education student expectations.
- N. The role of technology.
- O. Challenges facing distance education teachers.
- P. The need for distance education policies.

Table 2

*A List of Issues for Evaluations of Traditional & Distance Education Courses*

Authors	A	B	C	D	E	F	G
Achtemeier, et al.						•	
Algozzine, et al.				•		•	
Anonymous						•	
Barnes, G. R.					•		
Budd, J.				•	•		
Chen, Y. & Hoshower, L. B.	•		•	•			
Dominguez, P. S. & Ridley, D. R.							•
Emery, et al.		•	•	•			
Laverie, D. A.						•	
Martin, J. R.			•			•	
Neumann, R.				•			
Patton, M. Q.				•			
Rapert, et al.				•			
Reid, D. J. & Johnston, M.				•		•	
Simon, J. C. & Soliman, K. S.					•		
Spencer, K. J. & Schmelkin, L. P.			•				
Starr-Glass, D.				•			

(table continues)

Table 2 (continued)

Authors	A	B	C	D	E	F	G
Tricker, et al.					•		
Twigg, C.A.	•		•				
Tyler, K.				•			
White, E. M.				•			

Table 3

*Issues of Evaluations Directly Related to Distance Education (& Possibly Traditional Courses)*

Authors	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Achtemeier, et al.		•						•		•	•			•		•
Algozzine, et al.								•		•						
Anonymous				•				•		•		•				
Barnes, G. R.								•								
Benigno, V. & Trentin, G.	•	•				•						•				
Chen, Y. & Hoshower, L. B.								•								
Christensen, et al.		•						•			•			•		
Clow, K. E.	•				•				•		•			•		
Czubaj, C.A.		•														•
Dwyer, F. & Li, N.	•	•					•	•				•				
Easton, S. S.															•	
Emery, et al.					•			•		•						
Griffin, et al.								•		•						

(table continues)

Table 3 (continued)

Authors	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Halpern, D. F. & Hakel, M. D.												•				
Harnar, et al.		•						•								
Hiltner, A. & Loyland, M.										•						
Holcomb, et al.		•														
Keeton, M. T.		•											•			
Knowlton, D. S.		•														
Laverie, D. A.					•			•				•				
Marshall, G.	•	•	•					•		•		•				•
Martin, J. R.					•					•						
McKeachie, W.								•								
Miller, T. W. & King, F. B.	•	•							•							•
Neumann, R.										•						
Paswan, A. K. & Young, J. A.								•		•		•				
Patton, M. Q.								•								

(table continues)

Table 3 (continued)

Authors	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Phipps, R. & Merisotis, J.	•							•		•		•		•		
Rapert, et al.								•								
Regalbuto, J.						•										•
Robson, J.		•										•		•	•	
Scanlan, C.L.										•						
Seay & Chamberlain											•			•		
Shea, et al.									•		•		•			
Sherry, L.								•		•						•
Spooner, et al.						•					•					
Starr-Glass, D.		•						•		•						
Tricker, et al.		•				•		•								•
Twigg, C.A.								•								
Tyler, K.								•								
Vrasidas, et al.										•		•				
White, E. M.										•						
Willis, B.								•		•		•				

### *Purpose of the Study*

The purpose of this study is to provide criteria that should be present in a distance education evaluation instrument and system by assessing the perceptions of the most important stakeholder—the distance education student, and conducting a comparison of the student responses and the experts opinions. To collect this data, first, a list of the current issues was created from a review of literature. Second, a distance education student survey instrument addressing distance education evaluation system features was developed and administered. This survey provided student perceptions on and experiences with current distance education evaluation systems. Third, an analysis of issues found in current literature and the student survey responses and recommendations was conducted. Results from this study will provide information that will aid decision makers in developing or choosing the proper evaluation system and instrument to be used for distance education.

### *Research Questions*

To help guide this study, the following research questions were created:

1. What differences are recognized by students regarding the organization, engagement, modes of monitoring, and evaluation of web courses versus traditionally taught courses?
2. What percentage of students believes the student evaluation instrument used for traditional classrooms is the appropriate tool for student evaluation of web courses?
3. What do students perceive as the appropriate use of evaluation data?

4. What do students perceive as adequate motivation for providing valid and reliable responses for student evaluations?
5. What key questions are perceived to be valid and useful for evaluating web courses?
6. Other than end-of-course student evaluations, what additional course feedback is currently required of students that would provide course assessment information for web courses?
7. If additional student feedback, other than end-of-course student evaluations, is a part of the distance education evaluation system, when should it occur?
8. In order to maximize the use of feedback provided from student evaluation instruments, when does the student perceive the request(s) for information should occur?
9. What media is preferred by students for the student evaluation of web courses?
10. What percentage of students perceives themselves as customers?
11. Do students feel competent in their ability to evaluate a course?

#### *Population and Sample*

The Sloan Consortium (Sloan-C), a consortium of both institutions and organizations that are committed to quality online education, promotes the collaborative sharing of knowledge and effective practices for online education. Research was sponsored by Sloan-C to discover the extent of online education for private, nonprofit and for-profit, and public institutions in the United States during the 2003/2004 academic year. It was claimed by Allen and Seaman (2004), in their report *Entering the*

*Mainstream*, that there were just over 1.9 million students enrolled in online courses in fall 2003. Fall 2004 online enrollments were estimated to increase by 700,000 additional students. It is important to note that these are enrollment figures, not course completion figures.

Using the figures provided in the *Entering the Mainstream* (Allen & Seaman, 2004) report, the population to be used for the current study can be estimated to be 2.6 million online students. These online students can be defined as students who were enrolled in at least one online course in a higher education institution during the summer and fall 2005 and spring/winter 2006 semesters.

There has been much learned but even more yet to be learned about distance education. Due to this relatively new facet to higher education, along with the increase in institutional expenditures and income, distance education has become a hot topic. As a result of this interest, distance education students have been bombarded by surveys. Those in charge of distance education programs are not only hesitant but also reluctant to allow further surveying of this select student body. For this reason, this study was limited to one university.

A Midwestern institution in Missouri was selected for this study and will be referred to as University M in order to keep anonymity. University M is considered a small state university founded in the 1800s, with a current student population of 10,000. This university boasts 150 degree programs, awarding the following degrees: Bachelor's, Master's, and Educational Specialist. At this time, only two online Bachelor's degrees and one Master's degree program is offered but according to the Missouri Coordinating Board's Missouri Learners Network, University M is ranked among the top three

Missouri universities in the number of Internet courses offered (Retrieved on February 5, 2005 from web site of this university).

The population used in this study consists of the total population of the selected university that met the following criteria: (a) enrolled and completed at least one web-based course at the respective institution during the summer and fall of 2005 and spring/winter semester of 2006; (b) prior traditional course enrollment and completion; and (c) current activated university e-mail account, demonstrating current university enrollment. Students meeting this criterion for the sample at University M number 2238. This sample was found by querying University M's Information Technology department mainframe data warehouse on July 10, 2006.

#### *Data Collection and Instrumentation*

For discoveries to be made that will aid in identifying the criteria or guidelines for an effective instrument and evaluation system used in evaluating distance courses, data must be collected. This study followed the 15 step procedure for data collection and instrumentation provided by Thomas and Brubaker (2000) and utilized a survey. These steps include:

1. The researcher's guide question (or questions) defines the survey's focus.
2. Potential people, organizations, or regions to survey are identified.
3. Criteria are established to guide the choice of which options from among the potential ones at step 2 will actually be used.
4. Criteria are applied to the options to arrive at the actual people, organizations, or regions to be studied.
5. Potential instruments and methods of collecting survey data are identified.

6. Criteria for selecting the most suitable instruments and methods are established.
7. Specific instruments and methods of data collection are created or adopted.
8. A small sample of people, institutions, or regions that will not be used in the final survey is chosen for testing the instruments and methods in a pilot study in order to discover possible weaknesses in the methodology.
9. The instruments and methods are tried out on the small sample.
10. The results of the pilot study are examined, and the instruments and methods are revised to correct weaknesses found during the pilot study. If many shortcomings were identified, or if the researcher is not confident that the corrections have been sufficient, a second cycle of steps 7-10 may be carried out with a different sample of people, institutions, or regions (which will not participate in the final survey).
11. In most surveys, the entire population that is being studied does not take part.
12. The survey instruments and methods are administered.
13. The survey responses are tabulated and classified.
14. The classified results are interpreted to suggest what they mean in relation to the researcher's original guide questions.
15. A description of the study is written in the form of a thesis or dissertation. (p. 113)

### *Background Information*

Since it was earlier established that student perceptions of course evaluations are most frequently neglected (Chen & Hoshower, 1998; Tricker, et al., 2001), this study

sought the student opinion of distance education course evaluations. Opinions were be collected using a direct-data survey with the goal of gathering information that revealed the status of distance education course evaluations based solely on student insights.

The direct-data survey was an effective method for collecting information, known for showing the prevailing and diverging characteristics of the participating distance education students (Thomas & Brubaker, 2000). Using inferential statistics, the data collected from the sample was used to make estimates and inferences about the wider population of distance education students (Rowntree, 2004). Inferences made from the findings were extrapolated due to the survey presentation to only one university. Patton (1990) recommends extrapolation, or modest speculation, instead of generalization of the findings, especially with studies of this type.

There is one limitation associated with the direct-data survey that needed to be surmounted in this study. It is difficult to guarantee responses provided were conscientious and honest. Consistencies of responses were reviewed to aid in this detection.

Survey questions were developed that would provide answers to each research question posed in this study. According to Twigg (2001), participants in a survey are estimated to have a 20 question limit to the number of questions they will answer. Keeping this in mind, the student survey instrument was limited to 8 demographic and miscellaneous questions and 18 survey questions. Four questions were created to answer student observations of changes in the organization, engagement, modes of monitoring, and evaluation of web courses from its counterpart, traditional courses. Two questions in the survey addressed whether students felt the student evaluation tool for traditional

courses was appropriate for evaluating web courses. One question sought a ranking of the appropriate use of student course evaluation data. Discovery of student motivation for providing valid and reliable responses was addressed by two questions. Students were asked to provide a list of key questions that should be asked when evaluating a web course. A two-part question was asked to identify additional course feedback that was currently used or should be used to assess web courses. One question was devised as a follow-up to additional feedback, aimed at discovering when the request for additional feedback occurred. Three questions were created in order to ascertain ways to maximize the use of feedback provided. The preferred media for presenting the student evaluation of web courses was asked to be identified. Three questions were devised to identify if students considered themselves as customers and competent to evaluate their courses. Appendix A demonstrates which survey questions were associated to each research question.

The survey questions were structured using several of Tyler's (2001) suggestions. Tyler guidelines included (a) language should fit audience, (b) avoid asking for predictions, and (c) do not ask two things in the same question. The three most frequently used strategies for the development of questions included loose-question strategy, tight-question strategy, and converging-question strategy. According to Thomas and Brubaker (2000), loose-questions allow for unrestricted freedom in responses, tight-questions seek choices or preferences of limited options, and converging-questions provide the benefit of both loose-questions and tight-questions without influencing responses. Multiple-choice questions were used to simplify the survey and decrease the amount of completion time required.

Initial contact with currently enrolled students requesting compliance in completing the survey instrument was conducted by e-mail. With the use of e-mail for contact, the student is more likely to respond immediately by clicking on the conveniently provided hyperlink to the Internet web form survey instrument. The e-mail message is available for viewing in Appendix B. The e-mail message was personalized and sent individually to avoid appearing as Spam or junk e-mail. The message consisted of the following information: (a) overview of project and need for information, (b) request to complete web form survey instrument, (c) web address of survey form, (d) use of data collected, (e) estimated length of time required for completing the survey, (f) offer to share information, and (g) thank you notation. Two timelines were established based on the method of contact. A seven day timeline was derived with the consideration of allowing one week for reading the e-mail request and the expectation of an immediate compliance. After seven days, a reminder would be sent to encourage compliance. Appendix C displays the e-mail survey request reminder. Communication by e-mail was considered to be the quickest and most efficient means to contact students, especially for additional efforts needed to encourage student compliance.

Students were asked to anonymously complete a brief survey created and available on the Internet. Tyler's (2001) recommendations influenced the format of the web form created. He suggested placing easy, non-controversial questions first, keeping the online evaluation short enough or designed in a manner that avoids the need to scroll, and avoiding the mixture of rating and ranking questions. The list of questions used for the student survey is available in Appendix D. A copy of the web form used is available for viewing at <http://www6.semo.edu/henckell/survey.asp>. The results of the survey were

saved upon respondent submission to a *Microsoft Access* database file name Survey.mdb and stored on the web server. Automatically storing information collected in a database makes for easier use of the data for statistical purposes.

In order to test the questions and also the performance of the Internet web form survey, a pilot group was recruited and a plan designed to simulate the actual survey process. The pilot group would complete the exact same form as the students chosen to participate in the survey. Members of the pilot group were actually two separate groups, serving two purposes. One group, consisting of seven university employees, would provide feedback on the structure of the survey and the survey questions. The second group would include seven students, qualified in meeting the subject criteria, who would be useful in the test/retest process that will check for survey validity, as well as providing feedback on structure of the survey and the survey questions. In total, the pilot groups consist of 14 university affiliates and ranged from students who had completed at least one university web and traditional course and staff associated with evaluating both traditional and web courses, distance learning support staff, faculty, institutional research director, Information Technology application specialists, web page designer, and Information Technology Help Desk staff. With such a diversified pilot group, pertinent and informed feedback was guaranteed to be beneficial in the development of the final instrument.

An e-mail request for assistance was sent to the identified pilot group. The e-mail message consisted of the following information: (a) overview of need for information, (b) request to complete web form survey instrument, (c) web address of survey form, (d) use of data collected, (e) estimated length of time required for completing the survey, (f) offer

to share information collected and (g) thank you notation. A timeline for compliance of seven days matched the time allocated to the original sample. Reminders were sent after seven days. Appendices created for this activity include an e-mail requesting assistance as Appendix E, reminder request for assistance via e-mail as Appendix F, and feedback survey questions as Appendix G. The pilot group feedback survey form can be viewed at <http://www6.semo.edu/henckell/pilot.asp>. A *Microsoft Access* database was created for the feedback responses and the collected data was saved on the web server and stored in a file named Feedback.mdb.

### *Instrument Validity and Reliability*

In order to gather useful information, the survey instrument must be valid and reliable. When measuring personality traits such as attitude and interests, one must be careful with the development of the instrument (Patten, 2000). The concern is to prevent respondents from answering in a manner that demonstrates respondent bias. A second concern of the researcher involved the researcher's writing structure used in the survey. Questions and optional answers in the survey must be written in a manner that does not influence the responses of the students being surveyed. In reducing respondent bias or the bias of the researcher, the validity of the survey is increased.

Three approaches in the development of the survey and survey procedures were used to reduce validity and reliability concerns. The first approach was the anonymity associated with the survey. When the survey is submitted via the Web form, it is not known which of the sample population responded. Students are free to express themselves without fear of recriminations. In addition, the topic and purpose of the study does not appear to encourage less than truthful responses.

The second approach was to have the writing structure checked for researcher bias by using the pilot feedback survey. The responses and comments of pilot group members, in particular, those identified as staff associated with evaluating both traditional and web courses, distance learning support staff, faculty, institutional research director, was reviewed and the survey adjusted accordingly.

Patten (2000) recommends using the classic model of measuring twice and then checking to see if the two sets of measurements are consistent with each other. Vogt (1999) agrees with Patten's recommendation to test for a correlation. This was the third approach in determining reliability of the survey and was accomplished by using what Patten and Vogt refer to as the test-retest method.

#### *Test-Retest Events*

The survey was sent to the sample group identified as meeting the criteria for this study. Participants chosen for the sample were required to meet three criteria: currently enrolled at University M and completion of both a traditional and web-based course. For the data to be used, three criteria were used: student ranking greater than high school and completion of both a traditional and web-based course evaluation.

On October 14, 2006, a request for participation in a pilot survey group was e-mailed to thirteen University M students. Reminders of the original request were e-mailed one week later. Because this survey was anonymous, the initial thirteen students were sent a request to complete the same pilot survey. An explanation that the data was needed for survey reliability was included in the October 27 request. Once again, after one week, a reminder was e-mailed to each of the students.

*Response Rate.* Eleven students completed the test pilot survey web form. Of these eleven, two cases were removed due to failure to meet the criteria of web course evaluation completion. For the second or retest survey, only eight students responded. With the use of data collected from anonymous responses, ensuring that data from the same participants were compared presented a challenge. This feat was accomplished by matching respondents through demographic information such as gender, class level, and major. From the test and retest instances, comparisons of data were valid for six of the pilot group respondents.

*Respondent Characteristics.* Of the six test-retest participants, 67% were male and 33% were female. Only 1 student was classified as non-traditional, while 83% were classified as traditional students. With 8 choices for major, only four majors were selected: 33% reported business, 33% reported computer science, 17% reported health and human services, and 17% reported other. Graduates accounted for 17%, seniors 33%, juniors 17%, and sophomores 33% of the class levels chosen.

*Instrument Reliability.* While the survey questions numbered 18, several were designed with multiple parts which bring the actual number of questions to 26. From this total, 13 questions allowed for the choice of multiple responses, 7 questions required making a choice among several choices, 1 question required ranking, and 1 question required entering 2 numeric responses. For comparison purposes, the multiple response choice questions were recoded to a score of 1 for each of the choices selected and 0 if not selected. Using Microsoft *Excel*, a series of steps were then taken to see if the responses were repeated from one test to the other.

First, the number of choices made were summed and a total response rate was assigned to both test and post-test data. For example, if three students chose online discussion as one of the differences in evaluation organization or structure in the test event and four students made this choice in the post-test event, the totals response rate assigned was three and four. Second, of the two summations, the larger total was multiplied by two (to represent the two tests) by using the formula  $=IF(test\ sum \geq post\ test\ sum, test\ sum, post\ test\ sum)*2$ . Using the above example, the larger number, four, would be multiplied by two, for a total of eight. Third, the total response rates of test and post-test were divided by number that represents an exact match that was found in the calculations of step two. The formula used for the third step was  $=sum(test\ sum + post\ test\ sum)/IF\ statement\ result$  or  $=sum(3+4)/8$ . This number was then formatted as a percentage. If a group of responses (referred to here using the term sub-units) provided the results for a question, then two additional steps were taken. The first group step was to change the percentage into a number with two decimals for each of the sub-unit responses. Second, a sum of the sub-units was divided by the total number of sub-units. This was accomplished by using the formula  $=sum(sub\ unit1:subunit?)/number\ of\ subunits$ . The result of this formula is the overall percentage match for the group question of test and post-test.

An overall matching of responses was found to be 90% between test and post-test. This was derived by converting each of the percentages for the individual questions to a real number, then adding together the real numbers and dividing by the total number of individual numbers to achieve an average. The real number was then converted to a percentage. Results for the individual questions are: differences in organization 87%,

differences in engagement 75%, differences in monitoring 83%, evaluation frequency-traditional 100%, evaluation frequency-web 93%, evaluation question topics 93%, evaluation design or format—open-ended 91%, evaluation design or format—traditional media used 93%, evaluation design or format—web media used 100%, valid instrument—86%, web uniqueness 93%, appropriate use of evaluation rankings 92%, evaluation motivation 93%, less serious responses 91%, questions not used but needed 78%, additional course feedback 95%, useful feedback 84%, additional feedback occurrence 81%, frequency evaluation needed 78%, evaluation prime times 67%, appropriate media—paper 100%, appropriate media—web 100%, student as a customer 100%, evaluation competency 100%, reasons considered not competent 100%, and reasons considered competent 87%.

### *Data Analysis*

In order to conduct legitimate research, proper processes are required. Statistics is a set of tools and techniques that help the researcher reach this goal (Salkind, 2000). These tools and techniques aid in describing, organizing and interpreting information or data.

Exploring perceptions of web course students regarding the evaluation instrument and evaluation process of web courses was accomplished by collecting data via a web survey. Originally, this data was stored in a *MS Access* database on a web server. For all analyses of the test-retest procedure, data was exported from the web server database file and imported into *MS Excel*. For all analyses of the actual survey, data was exported from the web server database file and imported into a *SPSS* statistical software file as needed for analyzation.

Demographic data was exported and analyzed. In particular, data was collected on current class level, the student's major, number of web courses completed, number of web courses withdrawn, whether traditional or web evaluations had been completed by the student, gender, and classification of traditional or non-traditional student. This descriptive data was amassed to describe the characteristics of those that participated in the online survey. Demographic characteristic frequency tables were also created for those possessing more than five options, with the frequencies calculated and represented by percentages for all demographics.

Second, to determine if students view web courses different from traditional courses and the extent of differences noted by students, responses for survey questions 1, 2, and 3 were used. The following statistic techniques were used to assess the level of difference found by students: frequency distribution and percentages.

Addressing the nominal data of the multiple choice responses selected, percentages were calculated to represent the popularity of each choice provided. Frequencies ( $f$ ) or numbers of cases ( $N$ ) of each response for survey questions 1, 2, and 3 were found. The frequencies were then converted into percentages by dividing the number of students who chose the selection or response by the number in the sample and multiplying by 100 (Patten, 2000).

The determination on whether students perceived the current practice of web course evaluations and the evaluation process of web courses to be different from practices used for traditional courses was sought by using responses for survey questions 4A, 4B, and 4C. For survey question 4A, the statistical techniques used to discover the frequency of traditional course evaluations were frequency distribution. These

frequencies were then converted into percentages by using Patten's (2000) recommendations. The mean and standard deviation was also calculated. The most common type and frequently used average is the mean (Patten, 2000; Salkind, 2000). To get a more precise measure of central tendency, Salkind recommends finding the mean of quantitative data. The mean was calculated on the number of differences selected by each participant for questions 4A. Next, the standard deviation was assessed. By conducting the standard deviation process, once again, all the observed values are taken into account (Rowntree, 2004). The average amount of variability in a set of values is determined, demonstrating the average distance from the mean (Salkind, 2000). If the standard deviation is considered large, this indicates there is a large amount of variability in the responses; if the standard deviation is considered small, this indicates a small amount of variability in the responses (Hinkle, et al., 1998; Salkind). Variability represents the measured amount of how different values are from each other (Salkind).

To denote which types of evaluation questions were most likely found on traditional course evaluations, web-based course evaluations, or found equally on both types of evaluations, a frequency distribution was conducted on survey question 4B responses. These frequencies were then converted into percentages by using Patten's recommendations. In the discovery of evaluation design or format differences, a frequency distribution was conducted on survey question 4C. These frequencies were also converted into percentages by using Patten's recommendations.

Frequencies and percentages were also calculated on the responses from survey question 5 and again for question 6. Responses to survey question 5 demonstrate whether students felt traditional course student evaluation instruments can adequately provide

valid and sufficient information to based decisions for web-based courses. Responses to survey question 6 demonstrate whether students felt web courses were unique enough to require the development of a different evaluation instrument and process to ensure valid and useful data is collected.

Ranking data collected from question 7 was analyzed by using an ordinal scale of measurement. Patten (2000) suggested using a ranking of 1 for the highest and cautioned that rankings do not provide the amount that subjects differ. Identification of the rankings of importance by using the mode and a frequency table is provided in chapter four.

Frequencies (*f*) or numbers of cases (*N*) of the responses for survey questions 8, 9, and 10 were found. These frequencies were then converted into percentages by using Patten's (2000) recommendations. The percentages for 8 and 9 demonstrate what motivates the students to provide valid and reliable responses on student evaluations. Question 10 percentages will aid in the development of list of key questions students feel would be useful during the evaluation process.

Frequencies (*f*) or numbers of cases (*N*) of the responses for survey questions 11, 12, 13, 14, 15, 16, 17, and 18 were found. These frequencies were then converted into percentages by using Patten's (2000) recommendations. The percentages demonstrate whether, and if so, when students experienced the request for additional course assessment information for web courses during the progress of the course, the frequency evaluation should occur, prime times for evaluations, what was considered to be appropriate media for the evaluation of web courses, whether or not the student perceived his/herself as a customer, and whether or not the student felt competent in evaluating a course.

### *Summary*

The goal of this study was to provide information that will help institutions develop a distance education evaluation system by creating or choosing a proper student evaluation instrument and procedures that will provide valid and reliable answers in order to make applicable decisions. Tables 2 and 3 demonstrated the numerous issues associated with the evaluation of web courses. The focused population and the sample criteria were revealed. Justifications were elaborately listed in the section which described the survey questions and instrument validity and reliability. Details were provided on the actual data analysis process used to answer the research questions. Chapter 4 provides, in greater detail, the analysis of the data. A review of the entire study, findings from the data analysis, conclusions based on the research questions, implications found while conducting the study, and recommendations for future research on evaluating web courses are located in Chapter 5.

## CHAPTER 4

### ANALYSIS OF DATA

#### *Introduction*

The evaluation of university courses serves a worthy purpose. Its purpose is not always agreed upon but regardless of the reason, the instrument used should properly measure what occurs throughout the course. In addition, the evaluation system should be devised in a manner that would reap the most reliable and valid information. When instruments are not the correct tool or are improperly used, data results are compromised. The purpose of this study was to identify criteria or guidelines for an effective instrument and evaluation system for evaluating web-based courses.

Since evaluations involve both students and university personnel but university personnel opinions are most frequently the subjects in evaluation research, the approach used for this empirical study was to discover student opinions on course evaluations. A survey instrument was developed and consisted of 8 demographic questions and 18 questions requiring students to identify differences or similarities between the evaluation of traditional and web-based courses. Student opinion was also sought on whether or not the uniqueness of a web-based course warranted the development and use of its own evaluation instrument and process. Appropriate uses of evaluation were ranked. Student motivations for providing valid and invalid evaluation responses were identified. System processes, such as feedback quantity and frequency, appropriate evaluation media, and time periods to evaluate, were determined. Whether or not students believed themselves to be customers was assessed. Finally, discoveries were made on feelings of competencies with the student in the role as evaluator.

In the following sections of Chapter 4, an explanation of how the data will be presented, a brief overview of the study, and data analysis of the information collected from University M student surveys will be provided. Each of the 11 research questions will be listed, directly followed by the associated survey questions. The type and description of statistical analysis that was used on each survey question and the survey results will be assembled in text and/or table format. A summary will close this chapter.

### *Organization of Data Analysis*

Summaries will be available for the responses of each survey question. When multiple selections are options, it will be noted. The descriptive data will be represented by percentages. Actual numbers will also be provided in the descriptive data when tables are not used. Tables will be used for instances that would aid the reader in quickly surmising the results.

### *Study Overview*

During this study, two survey events took place: test-retest, a test for reliability, and the actual student survey. The survey test for reliability was discussed in detail in Chapter 3 and demonstrates the survey instrument was reliable. The sample used for this survey was taken from data received from the Information Technology department at University M which identified students that were currently enrolled at University M and had completed both a traditional and web-based course during either Fall 2005, Spring 2006, or Summer 2006. Based on the design of the online web survey, very few questions allowed the student to not respond, therefore, there is a minimum amount of missing data.

### *Response Rate*

Originally, the population that met the criteria for the study was identified as 2238. A total of 537 students participated in the study. Further stipulations, such as having completed at least one a web-based course evaluation and having completed at least one traditional course evaluation reduced this number by 107 cases. For purposes of determining the confidence interval, a population of 2131 and a sample size of 430 were used. The confidence interval was derived to be 4.22 at 50% for a confidence level of 95%. With a confidence interval of 4.22, if 50% of the sample choose an answer, there is a 95% surety that of the entire relevant population, between 45.78% ( $50-4.22$ ) and 54.22% ( $50+4.22$ ) would have chosen that answer.

### *Respondent Characteristics*

Demographic data was collected on each student. Of the 430 participants, responses were provided by 4 (.9%) freshman, 30 (7%) sophomores, 81 (19%) juniors, 223 (52%) seniors, 91 (21%) graduates, and 1 (.2%) doctorate student responded. Table 4 illustrates the number of participants by class level.

Table 4

*Demographics Using Class Level*

Class Level	Frequency	Percentage
Freshman	4	.9%
Sophomore	30	7%
Junior	81	19%
Senior	223	52%
Graduate	91	21%
Doctorate	1	.2%

There were eight different selections for major course of study. Of these eight, respondents were comprised of 113 (26%) education, 89 (21%) health/human services, 86 (20%) business, 55 (13%) liberal arts, 48 (11%) other, 29 (7%) science/math, 6 (1%) computer science, and 4 (.9%) undeclared. Table 5 illustrates the number of students per major who responded.

Table 5

*Demographics Using Major*

Major	Frequency	Percentage
Business	86	20%
Computer Science	6	1%
Education	113	26%
Human/Health Service	89	21%
Liberal Arts	55	13%
Other	48	11%
Science/Math	29	7%
Undeclared	4	.9%

Gender was reported by each participant. In total, 313 (73%) females and 117 (27%) males responded to the survey.

Whether or not a student was classified as a traditional or nontraditional student was reported. A total of 247 (57%) participants were traditional students. Nontraditional students numbered 183 (43%).

The number of web-based courses completed resulted in a span of 16 categories. Completion rates were 86 (20%) for 3, 79 (18%) for 2, 75 (17%) for 4, 50 (11%) for 1, 48 (11%) for 5, 32 (7%) for 6, 17 (4%) for 7, 15 (4%) for 8, 10 (2%) for 10, 6 (1%) for 12, 4 (.9%) for 9, 3 (.7%) for 15, 2 (.5%) for 30, 1 (.2%) for 14, 18, and 20. See Table 6 for an illustration of these results.

Table 6

*Completion Rates for Web-based Courses*

Number of Web-based Courses Completed	Frequency	Percentage
1	50	11%
2	79	18%
3	86	20%
4	75	17%
5	48	11%
6	32	7%
7	17	4%
8	15	4%
9	4	.9%
10	10	2%
12	6	1%
14	1	.2%
15	3	.7%
18	1	.2%
20	1	.2%
30	2	.5%

Information regarding the number of web-based courses dropped was also requested. The number of web-based courses dropped by the respondents resulted in a

span of five categories. Drop rates were 340 (79%) for 0, 69 (16%) for 1, 15 (4%) for 2, 4 (.9%) for 3, and 2 (.5%) for 4 courses.

### *Research Questions*

The focus of this study was directed by the following research questions:

1. What differences are recognized by students regarding the organization, engagement, modes of monitoring, and evaluation of web courses versus traditionally taught courses?
2. What percentage of students believes the student evaluation instrument used for traditional classrooms is the appropriate tool for student evaluation of web courses?
3. What do students perceive as the appropriate use of evaluation data?
4. What do students perceive as adequate motivation for providing valid and reliable responses for student evaluations?
5. What key questions are perceived to be valid and useful for evaluating web courses?
6. Other than end-of-course student evaluations, what additional course feedback is currently required of students that would provide course assessment information for web courses?
7. If additional student feedback, other than end-of-course student evaluations, is a part of the distance education evaluation system, when should it occur?
8. In order to maximize the use of feedback provided from student evaluation instruments, when does the student perceive the request(s) for information should occur?

9. What media is preferred by students for the student evaluation of web courses?
10. What percentage of students perceives themselves as customers?
11. Do students feel competent in their ability to evaluate a course?

### *Data Analysis*

In order to analyze the data collected, the whole of the study must be separated into parts. This section will present each research question, followed by the associated elements and the statistical analysis that was utilized.

*Research Question One: What differences are recognized by students regarding the organization, engagement, modes of monitoring, and evaluation of web courses versus traditionally taught courses?*

Students were asked to identify organizational or structural differences between traditional and web-based courses. The ten options listed involved: use of online discussions, use of bulletin board, emphasize building a community, improved social interactions, increased responsibility for learning, more activities assigned, more time spent on content, information condensed and more manageable, presentation of multiple perspectives, and learner informed of progress. Multiple selections were possible. Frequencies and percentages were used to calculate the responses. Table 7 illustrates agreement of 83% on increased responsibility for learning, 69% on use of online discussions, 65% on use of bulletin board, 61% on learner informed of progress, 59% on more activities assigned, 42% on information condensed and more manageable, 34% on more time spent on content, 33% on presentation of multiple perspectives, 24% on emphasize building a community, and 14% on improved social interactions.

Table 7

*Organizational or Structural Differences*

Options	Frequency	Percentage
Use of online discussions	296	69%
Use of bulletin boards	279	65%
Emphasis on building a community	102	24%
Improved social interactions	58	14%
Increased responsibility for student	354	83%
More activities assigned	254	59%
More time spent on content	147	34%
Information condensed and more manageable	178	42%
Presentation of multiple perspectives	140	33%
Learner informed of progress	262	61%

For the second area of differences studied, students were asked to identify what methods were used by the instructor to engage the student. Fifteen options were available for selection and included: variety of teaching methods; used, not covered, content; controlled course less; more supportive role; greater variety of resources; greater variety of presentation; emphasis of community building; provided more feedback; fostered collegiality; more collaborative environment; used course guidelines; provided technological directions; provided more opportunities to practice; provided road map for

learning; and provided more learner-centered activities. Multiple selections were possible. Frequencies and percentages were used to calculate the responses. Table 8 illustrates agreement of 71% on controlled course less; 60% on used course guidelines; 60% on provided technological directions; 51% on provided more learner-centered activities; 48% on provided road map for learning; 47% on greater variety of resources; 43% on provided more feedback; 39% on used, not covered, content; 34% on fostered collegiality; 30% on more supportive role; 29% on greater variety of presentations; 27% on variety of teaching methods; 24% on more collaborative environment; 22% on provided more opportunities to practice; and 20% on emphasis of community building.

Table 8

*Differences in Engagement*

Options	Frequency	Percentage
Variety of teaching methods	117	27%
Used, not covered, content	167	39%
Controlled course less	303	71%
More supportive role	128	30%
Greater variety of resources	200	47%
Greater variety of presentation	126	29%
Emphasis of community building	86	20%
Provided more feedback	183	43%
Fostered collegiality	144	34%
More collaborative environment	102	24%
Used course guidelines	258	60%
Provided technological directions	255	60%
Provided more opportunities to practice	95	22%
provided road map for learning	206	48%
Provided more learner-centered activities	216	51%

The third area reviewed was the monitoring of student activities, participation, and other behaviors that were recognized as different between traditional and web-based courses. Five options were available for selection and included: evaluation after each

section, online discussion monitoring, monitoring number of student interactions, monitoring student comprehension, and solicitation of student comments. Multiple selections were possible. Frequencies and percentages were used to calculate the responses. Table 9 illustrates agreement of 80% on online discussion monitoring, 60% on monitoring student comprehension, 53% on monitoring number of student interactions, 45% on solicitation of student comments, and 39% on evaluation after each section.

Table 9

*Different Monitoring Methods*

Options	Frequency	Percentage
Evaluation after each section	160	39%
Online discussion monitoring	333	80%
Monitoring number of student interactions	221	53%
Monitoring student comprehension	247	60%
Solicitation of student comments	188	45%

Evaluations can provide useful information for both faculty and administrators. The fourth area of differences reviewed involved three parts. For the first part, students were asked the frequency any type of course evaluations occurred during a traditional and web-based course. Types of evaluations could include: pre-evaluation of technological abilities, evaluation of demographic information, evaluation of aptitude as a participant in a web course, collection of information on progress throughout the course, evaluation following each section in the course, and overall course evaluation. Frequencies and percentages were used to calculate the responses for both course types. Eleven (2.6%) missing responses were reported for the traditional course evaluation frequency; therefore, the valid percentage calculation is reported. Agreement on the average traditional course evaluation frequency was: 54% for 1 time; 15% for 2 times; 10% for 3 times; 8% for 4 times; 6% for 5 times; 1% for 6, 8, 9, 10, and 20 times; .5% for 15; .2% for 12, 13, 18, 24 and 99. Table 10 illustrates results on the evaluation frequency of

traditional courses. Ten (2.3%) missing responses were reported for web-based course evaluation frequency; therefore, the valid percentage calculation is reported. Agreement on the average web-based course evaluation frequency was: 50% for 1 time; 17% for 2; 10% for 3; 7% for 4; 4% for 5; 3% for 6; 1% for 7; 2% for 8 and 10; .5% for 12, 16, 20, 25, and 30; .2% for 13, 14, 15, 22, 27, and 50. Table 11 illustrates results on the evaluation frequency of web-based courses.

Table 10

*Traditional Course Evaluation Frequency*

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Average Number of Requests	Frequency	Percentage
1	230	55%
2	61	15%
3	40	10%
4	34	8%
5	23	6%
6	6	1%
8	6	1%
9	4	1%
10	4	1%
12	1	.2%
13	1	.2%
15	2	.5
18	1	.2%
20	4	1%
24	1	.2%
99	1	.2%

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Table 11

*Web-based Course Evaluation Frequency*

Average Number of Requests	Frequency	Percentage
1	208	50%
2	73	17%
3	41	10%
4	30	7%
5	16	4%
6	13	3%
7	6	1%
8	7	2%
10	10	2%
12	2	.5%
13	1	.2%
14	1	.2%
15	1	.2
16	2	.5%
20	2	.5%
22	1	.2%
25	2	.5
27	1	.2

(table continues)

Table 11 (continued)

Average Number of Requests	Frequency	Percentage
30	2	.5
50	1	.2

The mean and standard deviation was calculated on the frequency for both the traditional and web-based courses. Traditional courses were stated to be evaluated on an average of 2.77, with a standard deviation of 5.6 and web-based courses on an average of 3.1, with a standard deviation of 4.6.

For the second part of the fourth area examining differences, identification of the type of course that placed more emphasis on the question topics listed was requested. Three choices were provided: traditional ('trad'), 'web,' and 'same.' The evaluation question topics listed were: learning competencies, technologies used, communication, preparation for further study, course design, course activities, course assignments, learning environment, instructor support, technical assistance, educational approach, course materials, methods used to provide information, course organization or structure, instructor feedback, instructional style, interaction among students, and active learning. Frequencies and percentages were used to calculate the responses for both course types. For learning competence, 27% chose 'trad,' 10% chose 'web,' and 63% chose the 'same' emphasis. For technologies used 6% chose 'trad,' 77% chose 'web,' and 16% chose the 'same' emphasis. For communication, a more even distribution of the responses occurred: 38% chose 'trad,' 30% chose 'web,' and 32% chose the 'same' emphasis. For

preparation of further study: 34% chose 'trad,' 14% chose 'web,' and 52% chose the 'same' emphasis. For course design: 12% chose 'trad,' 44% chose 'web,' and 43% chose the 'same' emphasis. For course activities: 22% chose 'trad,' 41% chose 'web,' and 37% chose the 'same' emphasis. For course assignments: 10% chose 'trad,' 49% chose 'web,' and 41% chose the 'same' emphasis. For learning environment: 59% chose 'trad,' 14% chose 'web,' and 27% chose the 'same' emphasis. For instructor support: 36% chose 'trad,' 20% chose 'web,' and 44% chose the 'same' emphasis. For technical assistance: 7% chose 'trad,' 65% chose 'web,' and 27% chose the 'same' emphasis. For educational approach: 32% chose 'trad,' 8% chose 'web,' and 59% chose the 'same' emphasis. For course materials: 19% chose 'trad,' 20% chose 'web,' and 61% chose the 'same' emphasis. For methods used to provide information: 21% chose 'trad,' 33% chose 'web,' and 45% chose the 'same' emphasis. For course organization or structure: 15% chose 'trad,' 36% chose 'web,' and 48% chose the 'same' emphasis. For instructor feedback: 24% chose 'trad,' 43% chose 'web,' and 32% chose the 'same' emphasis. For instructional style: 42% chose 'trad,' 17% chose 'web,' and 40% chose the 'same' emphasis. For interaction among students: 56% chose 'trad,' 21% chose 'web,' and 23% chose the 'same' emphasis. For active learning: 34% chose 'trad,' 22% chose 'web,' and 44% chose the 'same' emphasis. Table 12 illustrates results on the type of course evaluation that places emphasis on the evaluation questions listed.

Table 12

*Emphasis on Course Evaluation Questions*

Question Topic	Traditional	Web	Same
Learning competence	115 27%	43 10%	268 63%
Technologies used	25 6%	332 77%	70 16%
Communication	163 38%	128 30%	137 32%
Preparation for further study	145 34%	58 14%	224 52%
Course design	51 12%	191 44%	183 43%
Course activities	93 22%	174 41%	158 37%
Course assignments	44 10%	210 49%	174 41%
Learning environment	253 59%	59 14%	116 27%

(table continues)

Table 12 (continued)

Question Topic	Traditional	Web	Same
Instructor support	153 36%	85 20%	190 44%
Technical assistance	32 7%	278 65%	116 27%
Educational approach	136 32%	36 8%	255 59%
Course materials	80 19%	86 20%	262 61%
Methods Used	91 21%	143 33%	193 45%
Course Organization or Structure	64 15%	156 36%	205 48%
Instructor feedback	103 24%	184 43%	139 32%
Instructional style	182 42%	75 17%	172 40%
Interaction among students	241 56%	88 21%	99 23%

(table continues)

Table 12 (continued)

Question Topic	Traditional	Web	Same
Active learning	147	96	187
	34%	22%	44%

For the final part in the fourth area examining differences, students were asked questions regarding the design or format of the evaluation. Three questions were included in this section. The first question involved whether web-based course evaluations contained ‘more,’ ‘less,’ or ‘same’ number of open-ended questions. Frequencies and percentages were used to calculate the responses. A total of 159 (37%) students agreed there were ‘more,’ 75 (17%) agreed there were ‘less,’ and 196 (46%) agreed there were the ‘same’ amount of open-ended questions found on web course evaluations.

The media most frequently used for traditional and web-based course evaluations were the second and third questions. Choices were ‘paper’ or ‘online.’ Frequencies and percentages were used to calculate the responses for both course types. For traditional courses, the majority of evaluations were completed on paper. Online evaluations were found only 34 (8%) of time, while paper evaluations were stated to be the media of choice 396 (92%). The opposite was found true for the media choice of web courses. An overwhelming amount of participants, 429 (99.8%), stated online evaluations were most frequently used for web courses.

*Research Question Two: What percentage of students believes the student evaluation instrument used for traditional classrooms is the appropriate tool for student evaluation of web courses?*

Since many decisions are made by faculty and administrators based on information provided by course evaluations, students were asked whether or not they felt a traditional course evaluation could adequately provide valid and sufficient information in which to base decisions for web-based courses. Frequencies and percentages were used to calculate the responses. Agreement that a traditional course evaluation instrument was valid for collecting information on a web-based course was 190 (44%). Those that disagreed that a traditional course evaluation instrument was a valid tool numbered 240 (56%).

When asked whether web courses were unique enough to warrant a different evaluation instrument, the response was overwhelmingly yes. Frequencies and percentages were used to calculate the responses. A total of 344 (80%) versus 86 (20%) students felt a different evaluation instrument and process was needed to extract more valid and useful data.

*Research Question Three: What do students perceive as the appropriate use of evaluation data?*

Information collected from student evaluations is often used for different purposes. Students were asked to rank, using a 1 to 5 scale and 1 being the most important, the following purposes: improve instruction, improve course content, instructor raises, instructor promotion, and instructor tenure. Mode, frequencies, and percentages were used to calculate the responses. Improve instruction was ranked 1 or as

the most important reason to conduct a course evaluation. The remaining rankings were: 2 'improving course,' 3 'instructor tenure,' 4 'instructor promotion,' and 5 'instructor raises.' The variance in choices for improving instruction was as follows: 60% for 1, 27% for 2, 4% for 3, 2% for 4, and 7% for 5. The variance in choices for improving course content was: 34% for 1, 51% for 2, 5% for 3, 5% for 4, and 5% for 5. The variance in choices for instructor tenure was: 6% for 1, 4% for 2, 37% for 3, 22% for 4, and 31% for 5. The variance in choices for instructor promotion was: 4% for 1, 7% for 2, 33% for 3, 42% for 4, and 15% for 5. The variance for instructor raises was: 5% for 1, 5% for 2, 27% for 3, 20% for 4, and 43% for 5. Table 13 illustrates results on the ranking frequencies of the appropriate use of evaluations.

Table 13

*Appropriate Use of Evaluations*

Use	Rank 1	Rank 2	Rank 3	Rank 4	Rank 5
Improve instruction	258	118	16	9	29
	60%	27%	4%	2%	7%
Improve course content	145	221	20	20	23
	34%	51%	5%	5%	5%
Instructor raises	21	21	116	87	185
	5%	5%	27%	20%	43%
Instructor promotion	15	28	140	181	66
	4%	7%	33%	42%	15%
Instructor tenure	24	19	157	96	133
	6%	4%	37%	22%	31%

*Research Question Four: What do students perceive as adequate motivation for providing valid and reliable responses for student evaluations?*

Information provided by student evaluations is valuable only if responses are carefully considered and honestly stated. Students were asked what motivates them to provide valid and reliable responses on a course evaluation. Ten options were provided and are as follows: prior evaluation responses addressed by instructor, prior evaluation responses addressed by administration, instructor believes in evaluation process, administration believes in evaluation process, evaluation questions not generic,

evaluations provided during the courses, evaluation form lists uses, detailed responses were allowed, examples provided, questions written that accurately portray events. Multiple selections were possible. Frequencies and percentages were used to calculate the responses. Table 14 illustrates agreement of 79% on prior evaluation responses addressed by instructor, 75% on instructor believes in evaluation process, 71% on administration believes in evaluation process, 68% on evaluation questions not generic, 66% on prior evaluation responses addressed by administration, 60% on questions written that accurately portray events, 58% on evaluations provided during the courses, 49% on examples provided, 44% on evaluation form lists uses, and 42% on detailed responses were allowed.

Table 14

*Motivation for Providing Valid and Reliable Responses*

Options	Frequency	Percentage
Prior evaluation responses addressed by instructor	336	79%
Prior evaluation responses addressed by administration	282	66%
Instructor believes in evaluation process	320	75%
Administration believes in evaluation process	302	71%
Evaluation questions not generic	289	68%
Evaluations provided during the courses	248	58%
Evaluation form lists uses	190	44%
Detailed responses were allowed	178	42%
Examples provided	207	48%
Questions written that accurately portray events	257	60%

Students were also asked what would influence them to respond less seriously on student evaluation forms. Six options were provided and are as follows: expectation the responses will not be addressed, using questions that do not pertain, failure to benefit from evaluation, view that evaluations are popularity votes, students are not competent

evaluators, questions fail to accurately describe experience. Multiple selections were possible. Frequencies and percentages were used to calculate the responses. Table 15 illustrates agreement of 79% on expectation the responses will not be addressed, 72% on using questions that do not pertain, 58% on questions fail to accurately describe experience, 47% on failure to benefit from evaluation, 42% on view that evaluations are popularity votes, and 34% on students are not competent evaluators.

Table 15

*Less Serious Responses on Evaluations*

Options	Frequency	Percentage
Expectation the responses will not be addressed	333	79%
Using questions that do not pertain	305	72%
Failure to benefit from evaluation	200	47%
View that evaluations are popularity votes	177	42%
Students are not competent evaluators	144	34%
Questions fail to accurately describe experience	246	58%

*Research Question Five: What key questions are perceived to be valid and useful for evaluating web courses?*

Oftentimes, traditional course evaluations are used to evaluate web-based courses. Students were asked, in this instance, what questions are not used but are needed to acquire valid and useful information on a web-based course. Eleven options were provided and are as follows: appropriate use of technology, amount of communication between instructor and student, amount of communication between the students, quality of communication between instructor and student, quality of communication between students, development of community, written communication capabilities of instructor in online course, effective organization for online delivery, resource instructions provided,

web-based delivery appropriateness, and amount of information sufficient for learning at a distance. Multiple selections were possible. Frequencies and percentages were used to calculate the responses. Table 16 illustrates agreement of 77% on amount of communication between instructor and student, 77% on quality of communication between instructor and student, 72% on effective organization for online delivery, 72% on web-based delivery appropriateness, 68% on amount of information sufficient for learning at a distance, 66% on written communication capabilities of instructor in online course, 50% on resource instructions provided, 42% on appropriate use of technology, 41% on amount of communication between the students, 40% on quality of communication between students, and 27% on development of community.

Table 16

*Questions Not Used but Needed*

Options	Frequency	Percentage
Appropriate use of technology	179	42%
Amount of communication between instructor and student	328	77%
Amount of communication between the students	174	41%
Quality of communication between instructor and student	325	77%
Quality of communication between students	169	40%
Development of community	116	27%
Written communication capabilities of instructor in online course	281	66%
Effective organization for online delivery	305	72%
Resource instructions provided	211	50%
Web-based delivery appropriateness	306	72%
Amount of information sufficient for learning at a distance	290	68%

*Research Question Six: Other than end-of-course student evaluations, what additional course feedback is currently required of students that would provide course assessment information for web courses?*

Student feedback can be especially important for instructors who work with students learning at a distance. Web course students were asked if, other than end-of-course student evaluation, additional course feedback was requested. Frequencies and percentages were used to calculate the responses. A total of 293 (68%) of the students claimed no additional feedback occurred during their web-based course while 137 (32%) did experience additional feedback.

Students were then asked to identify course feedback that would be considered as useful for the instructor. Six options regarding student information were provided and are as follows: pre-assessment of technological abilities, demographic analysis, web course participant aptitude, student progress reports, assessment of course sections, and review of past web course experiences. Multiple selections were possible. Frequencies and percentages were used to calculate the responses. Table 17 illustrates agreement of 67% on student progress reports, 50% on assessment of course sections, 48% on web course participant aptitude, 46% on review of past web course experiences, 44% on pre-assessment of technological abilities, and 19% on demographic analysis.

Table 17

*Useful Feedback*

Options	Frequency	Percentage
Pre-assessment of technological abilities	183	44%
Demographic analysis	79	19%
Web course participant aptitude	198	48%
Student progress reports	275	67%
Assessment of course sections	208	50%
Review of past web course experiences	189	46%

*Research Question Seven: If additional student feedback, other than end-of-course student evaluations, is a part of the distance education evaluation system, when should it occur?*

Students were asked when and if additional student feedback occurred. Four options were provided and are as follows: course beginning, after each course section, after each exam, and never. Multiple selections were possible. Frequencies and percentages were used to calculate the responses. Thirteen students failed to respond to this question; therefore, the percent of cases was reported. A total of 181 (43%) stated never, 113 (27%) stated course beginning, 110 (26%) stated after each course section, and 105 (25%) stated after each exam.

*Research Question Eight: In order to maximize the use of feedback provided from student evaluation instruments, when does the student perceive the request(s) for information should occur?*

Students were asked to identify the frequency student evaluations are considered necessary. Six options were provided and are as follows: once, weekly, every three weeks, every five weeks, monthly, and never. Multiple selections were possible. Frequencies and percentages were used to calculate the responses. Five students failed to respond to this question; therefore, the percent of cases was reported. Table 18 illustrates agreement of 36% on monthly, 27% on every three weeks, 20% on every five weeks, 15% on weekly, 9% on once, and 3% on never.

Table 18

*Frequency of Evaluation Needed*

Options	Frequency	Percentage
Once	40	9%
Weekly	62	15%
Every 3 weeks	114	27%
Every 5 weeks	86	20%
Monthly	151	36%
Never	13	3%

Students were then asked to identify prime times for evaluations to occur during the length of the course. Five options were provided and are as follows: course beginning, after each course section, after each exam, three times per semester, and never. Multiple selections were possible. Frequencies and percentages were used to calculate the responses. Table 19 illustrates agreement of 50% on three times per semester, 36% on course beginning, 32% on after each exam, 30% on after each course section, and 3% on never.

Table 19

*Evaluation Prime Times*

Options	Frequency	Percentage
Course Beginning	153	36%
After each course section	128	30%
After each exam	135	32%
Three times per semester	215	50%
Never	11	3%

*Research Question Nine: What media is preferred by students for the student evaluation of web courses?*

Paper and web form are two popular forms of media for evaluations. Students were asked which forms of media were considered appropriate for evaluating web courses. Multiple selections were possible. Frequencies and percentages were used to calculate the responses. For paper, 51 (12%) students felt it was an appropriate evaluation media. For an online web form, 405 (94%) felt it was an appropriate evaluation media.

*Research Question Ten: What percentage of students perceives themselves as customers?*

In the role as student, the participants were asked if they perceived themselves as a customer of the university. Frequencies and percentages were used to calculate the responses. Students who viewed themselves as customers numbered 337 (78%); student who did not view themselves as customers numbered 93 (22%).

*Research Question Eleven: Do students feel competent in their ability to evaluate a course?*

Students were asked if they felt competent in their ability to evaluate a course.

Frequencies and percentages were used to calculate the responses. Results show that 424 (99%) students did feel competent in evaluating a course while 6 (1%) students did not feel competent.

The second part of the competency question asked that students who had responded no in the previous question, why they did not feel qualified to be an evaluator. Six options were provided and are as follows: use of unfamiliar terminology, not student's responsibility, inability to recognize bias, lack of knowledge of good teaching methods, inability to separate feelings on course topics and instructor, and other. Multiple selections were possible. Frequencies and percentages were used to calculate the responses. Table 20 illustrates agreement of 56% on inability to recognize bias, 44% on other, 28% on lack of knowledge of good teaching methods, 22% on use of unfamiliar terminology, 17% on not student's responsibility, and 17% on inability to separate feelings on course topics and instructor.

Table 20

*Reasons Why Student is Not a Competent Evaluator*

Options	Frequency	Percentage
Use of unfamiliar terminology	4	22%
Not student's responsibility	3	17%
Inability to recognize bias	10	56%
Lack of knowledge of good teaching methods	5	28%
Inability to separate feelings on course topics and instructor	3	17%
Other	8	44%

The third and last part of the competency questions was aimed at the students that felt competent as an evaluator. Five options were provided and are as follows: understand learning and if needs are met, understand need for evaluations, would not use evaluations to harm another, students constantly interact with instructor, and administrators are the actual evaluators. Multiple selections were possible. Frequencies and percentages were used to calculate the responses. Table 21 illustrates agreement of 93% on understand learning and if needs are met, 88% on would not use evaluations to harm another, 80% on students constantly interact with instructor, 80% on understand need for evaluations, and 64% on administrators are the actual evaluators.

Table 21

*Reasons Why Student is a Competent Evaluator*

Options	Frequency	Percentage
Understand learning and if needs are met	395	93%
Understand need for evaluations	338	80%
Would not use evaluations to harm another	370	88%
Students constantly interact with instructor	340	80%
Administrators are the actual evaluators	271	64%

*Summary*

Statistic functions were performed on data collected from an online web survey conducted at University M. An analysis of the data was executed to determine student opinions on events regarding web-based course evaluations. In particular, differences in traditional and web-based courses and their evaluation instruments and systems, motivation and competency of student evaluators, and whether students considered themselves as customer of the university were the focus of this analysis. The next chapter will bring this study to a close. Chapter 5 will include six important sections: a summary of the study, a brief review of the literature, a review of the findings, conclusions based on the research questions, implications or suggestions on what should occur as a result of the findings from this study, and the direction future research should follow.

## CHAPTER 5

### FINDINGS, CONCLUSIONS, AND IMPLICATIONS

#### *Introduction*

In this chapter, six sections are provided. The first section, Summary of the Study, will furnish a review of the problem, research questions, brief review of the literature, and population information. Located in the Findings section is a review of the findings from the statistical analysis conducted. An in-depth discussion of conclusions is presented next, followed by implications of what should be done and how it can be done. Contributions have been made in the Future Research section that suggests what should be studied and the importance of further research. Finally, a summary of the chapter, complete with a brief statement of the purpose, an overview of the findings, and conclusion will close this study of *Evaluating Distance Education: The Student Perspective*.

#### *Summary of the Study*

In so far as years of practice in education delivery, web-based courses are considered fairly young. Some universities use the same evaluation form and system to evaluate web-based courses as used for traditional courses. The problem lies in the fact that using the same tool and system for both types of courses has not been proven or unproven to be accurate and appropriate. Student views, as users of the evaluation tool and system, should be able to shed insight on the determination of whether traditional course instruments and evaluation system are reliable and valid for the purpose of evaluating web-based courses. Student views on whether students should actually participate in the evaluation process were collected.

### *Research Questions*

Eleven research questions were developed to assist in the discovery of student opinions of the evaluation tool and system used for web-based courses at University M.

The questions that directed this study were:

1. What differences are recognized by students regarding the organization, engagement, modes of monitoring, and evaluation of web courses versus traditionally taught courses?
2. What percentage of students believes the student evaluation instrument used for traditional classrooms is the appropriate tool for student evaluation of web courses?
3. What do students perceive as the appropriate use of evaluation data?
4. What do students perceive as adequate motivation for providing valid and reliable responses for student evaluations?
5. What key questions are perceived to be valid and useful for evaluating web courses?
6. Other than end-of-course student evaluations, what additional course feedback is currently required of students that would provide course assessment information for web courses?
7. If additional student feedback, other than end-of-course student evaluations, is a part of the distance education evaluation system, when should it occur?
8. In order to maximize the use of feedback provided from student evaluation instruments, when does the student perceive the request(s) for information should occur?

9. What media is preferred by students for the student evaluation of web courses?
10. What percentage of students perceives themselves as customers?
11. Do students feel competent in their ability to evaluate a course?

### *Review of the Literature*

A review of the literature inspired the creation of the eleven research questions. Discourse was found in regard to whether or not the course pedagogy, content, and course delivery were different enough to warrant a different evaluation instrument and system. Serious discourse also took place in the literature in regard to whether students were competent evaluators, and in particular, questioned student motivation for providing reliable and valid responses. Controversy existed over the purpose or use of evaluation results. The amount, type, and when to request feedback was a frequent topic found in the literature for web-based courses. Finally, there was disagreement on whether or not students are or should be considered customers of the university. Rarely was the student's view taken in account on these topics.

### *Survey Instrument*

In the process of developing the survey instrument used in this study, information gleaned from the literature provided considerable guidance. Recommendations for creating reliable and valid survey instruments included: limit the survey questions to 20 (Twigg, 2001), ensure the language fits the audience (Tyler, 2001), avoid asking for predictions (Tyler), do not ask two things in the same question (Tyler), place easy, non-controversial questions first (Tyler), write in a manner that does not influence student

responses (Patten, 2000; Thomas & Brubaker, 2000), have others check questions for researcher bias (Patten), and conduct an anonymous survey (Willis, 1993).

### *Population*

An online web form was the choice of survey media. Students who were sent an e-mail request for participation in this study numbered 2,238. These students were identified by the Information Technology Department at University M as having completed a web-based course during Fall 2005, Spring 2006, and Summer 2006, completed a traditional course at any time, ranked freshman or higher status, and currently enrolled at the university. Initially, there were 537 respondents. After review of the data, 107 cases were removed due to failure to have completed a traditional and web-based course evaluation. The sample contained a total of 430 students.

### *Findings*

Once the survey data was collected and analyzed, a review of the findings transpired. Findings included in this section are a result of the data analysis which occurred on the responses contributed by the entire sample. All research questions and the associated findings will be posted in the same sequence as presented in Chapter 4.

### *Demographic Data*

University M students who met the established criteria and participated in the survey were asked to identify their characteristics on the following: current class level, major course of study, gender, traditional or nontraditional classification, number of web-based courses completed, and number of web-based courses dropped. Two other questions were included in the demographic section of the survey but were used strictly as criteria that must be met in order for the data to be included in the study.

*Current class level.* The range of class level used in this study was freshman through doctorate. Even though it can be common for high school level students to complete web-based courses, this class level was excluded from the study. Seniors (52%) made up the majority of the survey respondents. Graduate students (21%) and juniors (19%) were the second and third highest group to respond (See Table 4).

*Major course of study.* While there were eight major courses of study choices offered, only three ranked 20% or greater. Education (26%), health/human services (21%), and business (20%) students were identified as the greatest number of respondents (See Table 5).

*Gender.* The amount of females greatly outnumbered the number of male respondents. Almost three quarters of the respondents were female (73%).

*Traditional student status.* After being provided the definition of a non-traditional student, participants were asked to identify their traditional student status. A fairly even split occurred, with 57% reporting traditional student status.

*Web-based courses completed.* A variety of responses were found in the number of web-based courses completed. Of the sixteen categories, only three were reported at a frequency greater than 15%: 3 (20%), 2 (18%), and 4 (17%) web-based course completions were the most popular choices (See Table 6).

*Web-based courses dropped.* Only five categories were reported for dropped web-based courses. Web courses had never been dropped by 79% of the respondents, while 16% had dropped only 1. All remaining drop rates remained lower than 5%.

### *Research Questions*

Eleven research questions evolved from this study and are provided below.

Following each research question, the results of the data from each associated survey question will be presented.

*Research Question One: What differences are recognized by students regarding the organization, engagement, modes of monitoring, and evaluation of web courses versus traditionally taught courses?*

In response to the survey question asking what differences were noticed regarding the organization or structure of their web-based courses, student agreement was reached by more than 50% of the student participants on 5 out of the 10 options (50%). The most agreed upon options include: increased responsibility for learning (83%), use of online discussions (69%), use of bulletin boards (65%), learner informed of progress (61%), and more activities were assigned (59%). Responses that received less than 50% student agreement were: information condensed and more manageable (42%), more time spent on content (34%), presentation of multiple perspectives (33%), emphasized building a community (24%), and improved social interactions (14%) (See Table 7).

Students were asked what differences were noticed regarding the methods used to engage the student in the learning process of their web-based courses. Agreement was reached by more than 50% of the student participants on only 4 out of 15 options (27%) offered as recognized differences in the methods of engagement practiced by the instructor. These 4 options include: controlled course less (71%), used course guidelines (60%), provided technical direction (60%), and provided more learner-centered activities (51%). Responses that received less than 50% student agreement were: provided road

map for learning (48%); greater variety of resources (47%); provided more feedback (43%); used, not covered, content (39%); fostered collegiality (34%); instructor acted in more supportive role (30%); used greater variety of presentations (29%); used variety of teaching methods (27%); provided more collaborative environment (24%); provided more opportunities to practice (22%); and emphasized community building (20%) (See Table 8).

What methods were used to monitor the student in a web-based course that varied from traditionally taught courses was the third survey question checking for differences. Agreement was reached by at least 50% of the student participants on 3 out of 5 options (60%) offered as recognized differences in the monitoring of student activities, participation, and other behaviors. These 3 options include: online discussion (80%), student comprehension (60%), and number of student interactions (53%). Responses that received less than 50% student agreement were: solicitation of student comments (45%) and evaluation after each section (39%) (See Table 9).

In checking the difference in evaluation frequency, types of evaluations were listed for student clarification. These types include: pre-evaluation of technical abilities, evaluation of demographic information, evaluation of participant's aptitude in a web-based course, collection of progress reports throughout the course, evaluation following each section in the course, and overall course evaluation. Keeping this list in mind, the majority of the students reported an evaluation frequency of 1 time for both the traditional (54%) and web-based (50%) course. The remaining frequencies of the traditional and web-based course were as evenly matched. For an evaluation frequency of 2 times, 15% agreement was calculated for the traditional and 17% for the web-based

course; for an evaluation frequency of 3 times, both traditional and web-based course agreement was 10%. All other frequencies listed for both the traditional and web-based course evaluation frequencies fell below 10% (See Tables 10 and 11).

Discoveries are sought in a variety of topics placed in an evaluation. Emphasis on certain topics may vary. Students were asked to identify if the traditional course, web-based course, or same emphasis was placed on evaluation question topics. The traditional course evaluation showed an agreement reached by more than 50% of the student participants on learning environment (59%) and interaction among students (56%). The web-based course evaluation showed an agreement reached by more than 50% of the student participants on technologies used (77%) and technical assistance. The same emphasis choice showed an agreement reached by more than 50% of the student participants on learning competence (63%), course materials (61%), educational approach (59%), and preparation for further study (52%). Agreement was split between traditional (38%), web-based (30%), and same (32%) on communication. Of the remaining topics, traditional was more frequently chosen for instructional style (42%); web was more frequently chosen for course assignments (49%), course design (44%), instructor feedback (43%), and course activities (41%); and same were more frequently chosen for course organization or structure (48%), methods used (45%), instructor support (44%), and active learning (44%) (See Table 12).

The final differences considered whether web-based course evaluations contain a greater number of open-ended questions and what media was used during evaluation of both traditional and web-based courses. The majority of the student participants (46%) felt there were the same amount of open-ended questions found on web-based course

evaluations as found on traditional course evaluations. For traditional courses, students reported they were most frequently evaluated on paper (92%). For web-based courses, students reported they were most frequently evaluated online (99.8%).

*Research Question Two: What percentage of students believes the student evaluation instrument used for traditional classrooms is the appropriate tool for student evaluation of web courses?*

Evaluations are used as tools of measurement on both traditional and web-based courses. Since some universities do not always use a different course evaluation for the different types of courses, students were asked whether or not the same instrument can be appropriately used for both course types. A majority of the students (56%) felt that traditional course evaluation instruments were not valid for evaluating web-based courses. When the students were asked to consider the uniqueness of web-based courses, more students felt a different instrument was necessary. A majority of the students (80%) felt that in order to collect valid and useful data, web-based courses warranted the development of its own evaluation instrument.

*Research Question Three: What do students perceive as the appropriate use of evaluation data?*

Use of the data collected from student evaluations can result in several events. Students were asked to rank the importance of how the evaluation data should be used. Improving Instruction ranked number 1 with 60% student agreement and improving course content ranked number 2 with 51% student agreement. The remaining 3 ranks received less than 50% agreement: instructor raises (27%), instructor promotion (42%), and instructor tenure (43%) (See Table 13).

*Research Question Four: What do students perceive as adequate motivation for providing valid and reliable response for student evaluations?*

In order for valid and reliable responses on student evaluations, students must be motivated to answer responsively. Agreement was reached by more than 50% of the student participants on 7 out of 10 options (70%) offered. These 7 motivations were: prior evaluation responses addressed by instructor (79%); instructor believes in evaluation process (75%); administration believes in evaluation process (71%); evaluation questions were not generic (68%); prior evaluation responses addressed by administration (66%); questions written that accurately portray events (60%); and evaluations provided during the course, not at the end (58%). Responses that received less than 50% student agreement were: examples were provided for clarification (49%), evaluation form lists uses (44%), and detailed responses were allowed (42%) (See Table 14).

In addition, students were also asked what might influence them to answer less responsibly. Agreement was reached by more than 50% of the student participants on 3 out of 6 options (50%) offered. These 3 negative influences were: expectation that the responses will not be addressed (79%), using questions that do not pertain to the course (72%), and use of questions that fail to accurately describe the course experience (58%). Responses that received less than 50% student agreement were: failure of benefit to current student (47%), view that evaluations are popularity votes (42%), and belief that students are not competent evaluators (34%) (See Table 15).

*Research Question Five: What key questions are perceived to be valid and useful for evaluating web courses?*

Students were asked what questions would aid in acquiring valid and useful information in the evaluation of web-based courses that are not found on evaluation instruments used for a traditional course. Agreement was reached by more than 50% of the student participants on 7 out of 11 options (64%) offered. These 7 options were: amount of communication between instructor and student (77%), quality of communication between instructor and student (77%), effective organization for online deliver (72%), web-based delivery appropriateness (72%), amount of information sufficient for learning at a distance (68%), written communication skills of instructor in online courses (66%), and resource instructions provided (50%). Responses that received less than 50% student agreement were: appropriate use of technology (42%), amount of communication between the students (41%), and quality of communication between students (40%), and the development of a community (27%) (See Table 16).

*Research Question Six: Other than end-of-course student evaluations, what additional course feedback is currently required of students that would provide course assessment information for web courses?*

Part of the evaluation system includes a review on the feedback process. Students were asked if any, other than end-of-course student evaluations, additional course feedback that would provide course assessment was required during the length of the course. A majority of the students (68%) declared no additional feedback occurred. Students were then asked what type of feedback would be perceived as useful in evaluating a web-based course. Agreement was reached by more than 50% of the student participants on 2 out of 6 options (33%) offered. These 2 options were: student progress reports (67%) and assessment of course sections (50%). Responses that received less than

50% student agreement were: web course participant aptitude (48%), review of past web course experiences (46%), pre-assessment of technological abilities (44%), and demographic analysis (19%) (See Table 17).

*Research Question Seven: If additional student feedback, other than end-of-course student evaluations, is a part of the distance education evaluation system, when should it occur?*

In order to determine what type of additional feedback occurred, students were asked to choose among four options. All choices returned less than 50% student agreement. Forty-three percent alleged never to have experienced an additional feedback request. Percentages on the other responses identified additional feedback requests as occurring at course beginning (27%), after each course section (26%), and after each exam (25%).

*Research Question Eight: In order to maximize the use of feedback provided from student evaluation instruments, when does the student perceive the request(s) for information should occur?*

Students were asked when some form of evaluation should take place during the length of the course. All choices returned less than 50% student agreement. Thirty-six percent agreement was found on a need for monthly evaluations. Percentages on the other responses identified the need for evaluation on a frequency basis of every three weeks (27%), every five weeks (20%), weekly (15%), once (9%), and never (3%) (See Table 18).

To make further evaluation system discoveries, the students were asked to identify prime times for evaluations to occur during the length of the course. Agreement

was reached by more than 50% of the students responding on 1 out of 5 options (20%) offered. This 1 option stated the prime times for evaluation was 3 times per semester/every 5 weeks (50%). Of the remaining responses, agreement less than 50% included: at the course beginning (36%), after each exam (32%), after each course section (30%), and never (3%) (See Table 19).

*Research Question Nine: What media is preferred by students for the student evaluation of web courses?*

In order to increase the odds that a student evaluation is completed, students were asked to identify what they felt was the approved or appropriate media for the evaluation instrument of a web-based course. The online web form (94%) was overwhelmingly chosen as the preferred media.

*Research Question Ten: What percentage of students perceives themselves as customers?*

Students pay for higher education but whether or not this relegates them to the status as university customers is a declaration that has failed to reach a consensus by many. At University M, the student participants were asked if they considered themselves as customers. The majority of students (78%) questioned did view themselves as customers of the university.

*Research Question Eleven: Do students feel competent in their ability to evaluate a course?*

Going one step further, students were asked if they felt competent in their ability to evaluate a course. An overwhelming amount of students (99%) stated confidence in their ability to evaluate courses.

Next, students who responded without confidence in the role as evaluator were asked to identify the reasons. Table 16 will show that although only six students stated in the previous question that they did not feel competent as evaluators, a few additional students selected one or more reasons they did not feel competent as evaluators. Agreement was reached by more than 50% of the students responding on 1 out of 6 options (17%) offered. This 1 option was inability to recognize bias (56%). Of the remaining responses, agreement less than 50% included: other (44%), lack of knowledge of good teaching methods (28%), use of unfamiliar terminology (22%), evaluation is not responsibility of student (17%), and inability to separate feelings on course topics and instructor (17%) (See Table 20).

For the last step on the topic of competency, students who responded yes to competency were asked to identify why they felt competent as evaluators. Agreement was reached by more than 50% of the student participants on 5 out of 5 options (100%) offered. These 5 options were: students understand how they learn and know whether learning needs were met (93%), student would not use an evaluation to harm another (88%), students constantly interact with instructor and evaluations provide feedback on those interactions (80%), students understand the need for conducting evaluations (80%), and administrators are the actual evaluators (64%) (See Table 21).

### *Conclusions*

Thus far, a large amount data has been collected for this study: review of the literature, survey responses, and statistics. The content of this section will display the relationship shared by the information gathered.

*Research Question One: What changes are recognized by students in the organization, engagement, modes of monitoring, and evaluation of web courses versus traditionally taught courses?*

Evaluations are tools used to gather information in order to make judgments, improvements, or increase knowledge (Patton, 1997). To be able to accurately perform any of these tasks, questions that will correctly portray the information must be asked. Worley (2000) stated that the evaluation of programs provides much needed data that can be acted upon, but only when evaluating the right elements. Organization, engagement, modes of monitoring, and course evaluation must be redesigned to work in the distance education environment; therefore alternative course management practices for virtual classrooms are required (Easton, 2003). In order to determine whether a different evaluation instrument was needed for web-based courses or whether the student evaluation instrument used for traditional courses was adequate, student perceptions were sought on course differences.

#### *Organization or Structure Differences*

Several course organization differences between web-based and traditional courses were noted by a majority of the students. The differences most prominent include: activities or exercises were assigned that increased the amount of responsibility of the student for his/her own learning; use of online discussions or an increased use of online discussions occurred; use of bulletin boards or an increased use of bulletin boards occurred; learner was kept well informed of progress; and overall, more activities or exercises were assigned. Recognition of 5 out of 10 differences indicates there is a

variation in the organization or structure of traditional and web-based courses. It is not as if traditional classrooms fail to act similarly, but the difference may lie in the extent.

Many authors also agreed with students' observations. Lectures in web-based courses are text based, making course materials the substitute for information usually imparted by the instructor (Knowlton, 2000). Responsibility lies with the student to then turn the provided information into concepts (Howland & Moore, 2002). Knowlton acknowledged the student-centered focus is required in distance education, while traditional classrooms remain more professor-centered. Without the lecture format, learning must be accomplished by other means. One possible method of filling this gap is for the instructor to assign more activities or exercises. This appears to be a valid approach based on the characteristics of the technology based web course. Marshall (2000) states that students must be engaged in the learning process and take more responsibility for constructing their own knowledge. Simply taking the materials used in a traditional classroom setting and placing them out on the web would be detrimental to the web-based learner. With so much responsibility for learning in web-based courses placed on the student, faculty must develop activities and exercises that take the place of learning that would occur while present in the classroom.

Due to elements in distance education that are not found in traditional classroom environments, Benigno and Trentin (2000) felt that distance education was more difficult to evaluate. Two of the ten elements found in their study to affect student success in the distance education environment involved communication, in particular, interpersonal communication and communication through technological means. Many distance education students complain of feelings of isolation Carr-Chellman, et al. (2000) and

Miller and King (2003) associate this problem to the high dropout rate associated with distance education. Use of online discussions and bulletin boards alleviates these feelings of isolation. Easton (2003) and Miller and King affirmed the use of these very same technologies in some traditional classroom settings. These tools could be useful in the building of a community and act as another method to increase learning outside the classroom. Unfortunately the results indicated that the use of online discussions or bulletin boards is not as wide spread in the traditional course environment.

Differences that less than the majority noted in regard to the course organization included: information was organized in smaller, manageable pieces; overall, more time was spent on learning the content, resulting in a deeper learning; information was presented from multiple perspectives; greater emphasis was placed on building a community of students; and improved social interactions occurred among students. While the students surveyed may not have frequently recognized these five differences in their web course experiences, the literature states these important characteristics of distance education courses are needed for success.

In the eight principles for successful instructors of distance education courses, Keeton, et al. recommended the use of deliberate practice by means of skill building in manageable steps (as cited by Keeton, 2004). Distance learning is very dependent upon the content found in course materials; this is especially due to the fact that the instructor is not present to provide clarification or content relationships (Tricker, et al., 2001). As the results indicated, this is an element that should and is being shared by both course types.

Less than 25% of the students recognized a greater emphasis in the community or improved social interaction aspect in their web-based courses, yet according to Bruffee (1999), present in college and university classroom is a community with its own unique culture. For a distance education course to be successful, Carr-Chellman, et al. (2000) stated a collaborative community of learners is often found. Bruffee acknowledged that a community does not develop on its own, but is a well thought out process that requires planning by the educator. The absence of the social dimension of learning is definitely recognized by distance students (Palloff & Pratt, as cited by Knowlton, 2000) and is one of the primary reasons student choose traditional courses over distance (Spooner, et al., 1999). Essential to learning is social interaction, active participation, cooperation, and negotiation (Hiltz, as cited by Miller & King, 2003). The social aspect and need for a community in a distance education environment demonstrates the need for a broader range of evaluating learning experiences (Griffin, et al., 2003). A sense of belonging to a community and the connection with others was indicated in the literature to lead to greater learning. Since so few students saw a difference between the course types regarding the building of a community within courses, two concerns surface. The results could point out that web instructors are (a) failing to build communities and/or (b) community building is not a high priority in the traditional classroom.

There was a mixed review on whether or not some of these organizational differences were actually a variance from traditional courses. Easton (2003) and Stella and Gnanam (2004) expressed the difficulty in differentiating traditional and distance education. New hybrid courses are resulting from the blending of distance course characteristics with the traditional classrooms, leading to evaluation concerns in the

traditional classroom as well. Based on the literature findings that the two course types are blending and the survey results, a need to create new evaluations for both traditional and web-based courses is indicated.

### *Engagement*

Student engagement in the learning process can differ from the traditional classroom to the distance learning environment. A majority of the survey participants identified the following differences: controlled the course less, making the student more responsible for their learning experience; used course guidelines and held expectations that would aid in a successful distance learning experience; provided directions on using the technological tools in the course; and provided more learner-centered activities.

Distance education is said to have shifted the power from the instructor to the student (Easton, 2003) since the responsibility for learning is more dependent upon the student (Marshall, 2000). Knowlton (2000) recognized that for an online course to be effective, the student-centered approach must be used. The change in responsibilities and the number of traditional features that are then modified for use in distance teaching demonstrate the need to change evaluation of distance education course (Anonymous, 2000). Since a difference was noted in the learning approach, web-based course evaluations should include questions addressing these differences.

While 60% of the students recognized the use of course guidelines, only 48% acknowledged a road map was provided containing topics such as what will be learned, how learning can be assessed, and how to learn. The Institute for Higher Education Policy stated that successful distance education instructors inform their students of the program course, objectives, concepts, ideas, and outcomes (as cited by Keeton, 2004).

Achtemeier, et al. (2003) created two questions regarding this topic and suggested adding them to online course evaluations. There are students who are still new to distance education courses; road maps would greatly aid the student as they make the switch from traditional classroom to the distance education environment.

Direction on technological tools was an issue for students and faculty alike. In a survey sent by Shea, et al. (2001) to 250 institutions, students ranked technical support as third in their list of improvements. Faculty also desired additional technical assistance. With web-based courses heavily entrenched with the use of technology, support issues must be addressed by all distance education programs. These issues may differ from technology issues that surface for the traditional student and evaluations provide the opportunity to dig deeper if the right questions are asked.

Easton (2003) proclaimed that distance education required a constructivist approach. With this approach, the student relies on activities to create knowledge (Reese & Overton, as cited by Marshall, 2000). Activity-based learning was considered by Macdonald (2004) as one of the four methods associated with the constructivist approach. Once again it is important to note that faculty must develop activities and exercises that take the place of learning that would occur while present in the traditional classroom environment.

Just under the majority student mark was recognition of being provided a greater variety of resources in the course content and receiving more feedback than is typically experienced in a traditional course. Distance education has been described as creating a better learning environment. Draves (as cited by Holcomb, et al., 2004) mentions that working online affords the student more topics and subjects readily available,

opportunities for access to foremost authorities and experts, an abundant amount of resources for information. Unfortunately, many faculty are not adequately prepared for teaching distance courses and are unaware of the need to supplement student interactions by providing additional resources and opportunities (Knowlton, 2000). Stella and Gnanam (2004) recognized the use of interactive audio, video, and textual formats in distance education but acknowledged that, while found in some traditional classrooms, these interfaces are witnessed less frequently. Based on these findings, faculty appear to be moderately failing in taking advantage of the greater variety of resources available that would help enrich web course teachings. Feelings of aloneness increase when feedback is not frequent. Consequently, these feelings of isolation can result in higher dropout rates. Faculty must be made aware of the importance of elements for changes to occur. Having questions regarding these elements on an evaluation will bring about this awareness.

According to Miller and King (2003), feedback is defined differently for distance courses than its traditional counterpart. Feedback has been proven to be a necessary element of both the traditional and distance environment but the absence of the instructor with distance courses can lead to student feelings that the instructor is totally removed from the learning process. Distance education students deserve to receive the feedback that would be present if there were no physical separations of the instructor and student. Results from the Tricker, et al. (2001) study on what students perceived to be course design and operation aspects showed that students rated high quality feedback as imperative. This reiterates Miller and King's proclamation that lack of feedback is one of the elements identified as contributing to high distance education course dropout rates.

Content that was used, not covered (39% student agreement), instructor acted in more supportive role (30%), use of a greater variety of presentation forms (29% student agreement), use of a variety of teaching methods (27% student agreement), and more opportunities to practice (22% student agreement) were recognized by some authors to be elements of distance education. If these elements are considered important elements to distance education but are not occurring, some means of informing instructors and administrators must be developed in order for engagement in learning to improve.

Macdonald (2004) believed that online courses stressed understanding the content rather than reciting the facts. The American Federation of Teachers report (2000) concurred, stating that educators approach the course design in ways that will maximize the potential of the medium employed. Easton (2003) stated that several authors believed faculty role was to direct information at the students, letting students create their own learning. Greater written presentation skills, demonstrated technical competence, knowledge in virtual management techniques, and ability to maintain viable exchanges of communication are tools used by successful distance education instructors (Berge & Collings, 1995). One principle mentioned by Keeton, et al. was aimed at instructors of distance education courses is for them to design every assignment in a manner that will enhance student skills as learners (as cited by Keeton, 2004). Another of their principles recommended the use of deliberate practice. Regalbuto (1999) proclaimed that pedagogy has always been a concern for institutions but is even more so with distance education where normal methods, emphasis, and delivery is modified.

Collegiality, a collaborative environment, and community building are all found to be closely related. Despite these shared relationships, 34% of the students recognized

the fostering of collegiality, 24% recognized a more collaborative environment, and only 20% realized an emphasis was placed on the building of a community. The literature also found low recognition of these recommended distance education desired elements. In a study conducted by Shea, et al. (2001), more student interaction was desired by the students. Bruffee (1999) felt that collaboration could not be found in traditional classrooms. However, if this statement was valid, team assignments would be foreign to the traditional environment. In the American Federation of Teachers report, these educators believed that the concept of a community could not be achieved unless student and teachers were in the same physical location (Twigg, 2001). Importance of these elements to distance education was noted by many authors. Miller and King (2003) reiterated several authors' decree that collegiality, or cooperation, is essential to learning. Willis (1993) mentioned that other studies found that teacher-student and student-student interaction were more important than the delivery system. Recognition that it is the development of a community that will allow students to work in a collaborative manner was made by Easton (2003).

### *Monitoring*

In order to receive the necessary feedback from distance courses, close monitoring and evaluating of student online activities, as well as performance, is desired. A majority of the students recognized differences in the monitoring of student activities, participation, and other behaviors in the areas of monitoring online discussions, monitoring student comprehension of the course content other than by the use of examination, and monitoring the number of student interactions.

Palloff and Pratt (as cited by Easton) instructed teachers to monitor online discussions, contributing only when new ways of thinking or keeping discussions on track are needed. Garrison's model (1997) declared that while students of distance courses are more responsible for directing their own learning, faculty must take responsibility for monitoring how well students are achieving this feat. In traditional classrooms, interactions between students can be observed (Tobin, 2004); this is not so easily accomplished with distance courses. Holcomb, et al. (2004), Shuey (2002), and Willis stated the amount and quality of student interactions are just one of many that demand the development of new teaching standards and criteria for distance courses.

Even though two monitoring options received less than 50% student agreement, these were actions found in the literature to aid in the development of successful distance education programs. These options pertain to the solicitation of student comments and evaluating the course after each section. It is apparent that the faculty at University M were aware of the need to closely monitor certain aspects of the student activities but failed to seek student comments, which evaluations at the end of each course section would have provided. This failure prevents the opportunity to check for learning or problems before proceeding with the next course section. Failure to collect student comments prior to the end of the course prevents opportunities to make course improvements and can result in lower end-of-course evaluation ratings.

Some of the benefits for soliciting student comments are to confirm student understanding and validate delivery methods, content, technology, and activities used. It has been acknowledged that student feedback is necessary for distance course delivery improvements (Anonymous, 1999; Howland & Moore, 2002). Evaluating after each

course section also allows an opportunity for modifications prior to the end of the course and was recommended by Benigno and Trentin (2000). Unfortunately, Reid and Johnston (1999) have found that the odds are against change occurring unless the teacher's intentions to change match the teacher's pre-existing concept of effective teaching.

The literature demonstrated that all 15 items were important to the success of distance education courses. Lack of majority agreement of the last 11 items of the methods used to engage the student in the learning process only signifies that an 'increase' in these elements was not witnessed, not necessarily that the events failed to occur.

### *Evaluation Process*

There are many types of evaluations that can occur during the length of the course. Each evaluation type has a particular purpose. Some evaluation purposes include: pre-evaluations to assess student technological abilities or demographic information, evaluations of student aptitude as a participant in a web course, evaluation of student progress throughout the course, evaluation of each section in the course, and overall course evaluation. The last question that addressed traditional and web-based course differences is directed at the student evaluation process and consisted of three parts. The first part compared the number of times an evaluation occurs during a traditional and web course. Based on the findings, a strong majority of the students were evaluated at the same frequency of their traditional courses. For traditional courses, a majority of the students (55%) experienced evaluation requests at a frequency of 1 time per course. For web-based courses, the results were almost an exact match with 50% of the students also experiencing a frequency of 1 time per semester. The second highest frequency was 2

evaluations and numbered 15% for traditional and 17% for web, with the frequencies rapidly decreasing as the number of requests increase. Since end-of-course evaluations are the most common, the findings show this is most frequently the only type of evaluation that occurs for both web-based and traditional courses.

In order to build a virtual community, the collection of student demographic information should occur (Benigno & Trentin, 2000; Clow, 1999; Shamber, 1988; Vrasidas, et al., 2003) It was also recommended that a pre-evaluation take place to amass information on previous experiences, aptitude as a distance education student (Benigno & Trentin; Schamber) and technology proficiencies (Benigno & Trentin; Schamber; Webster & Hackley, 1997).

Distance courses are known to have a much higher rate of course enrollment without completion (Miller & King, 2003). According to Phipps and Merisotis (1999), conducting student evaluations only at the end of the course will result in the loss of valuable information. Consequently, the evaluation results will be skewed. Without knowing why the student dropped the course, adjustments to the course that may have prevented the loss in enrollment may not occur. University M is losing valuable information that could prevent the loss of students with the use of only one evaluation occurring throughout the length of the course.

The second part of examining student evaluation processes required students to identify which evaluation question topics had more or the same emphasis placed on them—traditional or web-based evaluations. Traditional evaluations were found by a majority of students to place more emphasis on only one evaluation question topic, the learning environment. Since the traditional learning environment differs greatly from

web-based courses, a greater emphasis should be placed on this topic when evaluating web courses. Web-based course evaluations were found by a majority of students to place more emphasis on the following two evaluation question topics, both related to technology: technologies used and technical assistance. If traditional courses are truly blending with web-based course elements, traditional course evaluations should place more emphasis on this topic when evaluating traditional courses. Equal amounts of emphasis were found by a majority of student on the following five evaluation question topics: learning competence, course materials, educational approach, interaction among students, and preparation for further study. Course materials, educational approach, and interaction among students were shown in the literature to differ for web-based courses and web course evaluations should provide questions that will address these differences. The students were unable to reach an agreement as to which evaluation, traditional or web-based, received more or the same emphasis on the remaining ten evaluation question topics: communication, course design, course activities, course assignments, instructor support, methods used, course organization or structure, instructor feedback, instructional style, and active learning. The significance of the question topics listed in this survey question has been established earlier in this chapter. In light of this, one would imagine that if a valid and reliable evaluation of a web-based course had been used, the results would have shown more emphasis in the web course evaluation and at the very least, a 'same' emphasis response.

For richer qualitative information, Howland and Moore (2002) encouraged the use of open-ended questions. The last part of examining student evaluation processes required students to identify three evaluation design or format elements. First, there was

not a majority agreement of the students on whether web-based course evaluations contained more, less, or the same number of open-ended questions but more students (46%) did agree there was about the same amount. With distance education still being considered in its early stages of development and still evolving, open-ended questions would provide the opportunity for collecting information that may have otherwise failed to be collected. As was expected, a high majority (92%) of the students identified paper as being the most frequently used media for traditional course evaluation. An even higher majority agreed that online evaluations were used for web-based course evaluations.

*Research Question Two: What percentage of students believes the student evaluation instrument used for traditional classrooms is the appropriate tool for student evaluation of web courses?*

Regardless of the intended use of evaluations, the collection of valid and reliable data is always the bottom line. Achtemeier, et al. (2003) believed many universities were using traditional course evaluations to evaluate distance courses, therefore they seriously questioned the reliability and validity of the conclusions garnered. This group of co-authors felt that the use of one instrument for both types of courses could not possibly include questions that addressed the uniqueness of the online environment. While quality guidelines and standards are being developed for distance courses, Scanlan (2003) avowed that an accurate tool for quality assessment has not occurred. Griffin, et al. (2003) warned that using the wrong tool would hinder the chance of course improvement. Marshall (2000) stated that the evaluation of distance courses is based on historical practice and not careful analysis. Regalbuto (1999) stated pedagogic concerns warranted the need for the appropriate evaluation tool yet Berge and Myers and Clark, as cited by

Achtemeier, et al. (2003), thought there should not be pedagogic concerns since there is little, if any, pedagogy differences. Holcomb, et al. (2004), Shuey (2002), and Willis (1993) maintained that a well-designed traditional course evaluation was actually valid for distance courses but recommended the instrument be altered and amended.

Recognizing that the mention of web-based course uniqueness may influence student response to the question of whether or not traditional evaluations will provide valid and sufficient information, the question regarding web course uniqueness was listed second. Results showed that a majority of University M students (56%) felt traditional course evaluations should not be used when evaluating web-based courses. These results conflicted with the student responses from Holcomb, et al. (2004) study. An even greater number of students (80%) from University M recognized valid and useful data could only be collected with the use of a different evaluation for web-based courses due to course uniqueness. Based on the findings from this study and the fact that a review of the literature has also proven and listed numerous differences between traditional and distance courses, at the very least a modified evaluation instrument is required.

*Research Question Three: What do student perceive as the appropriate use of evaluation data?*

Evaluations are a task in education that none appear to be thrilled with. Faculty resent being evaluated, administrators are too busy to deal with the process, and students often feel evaluations are a waste of their time. Five to six basic uses of data are frequently found in the literature. For comparison purposes, the five most identified were ‘improve instruction,’ ‘improve course content,’ ‘instructor raises,’ ‘instructor promotion,’ and ‘instructor tenure.’ In studies conducted by Spencer and Schmelkin

(2002) and Chen and Hoshower (1998), students ranked the use 'improve instruction' highest. Spencer and Schmelkin's study went on to rank in high to low order: provide information to other students, instructor tenure, instructor promotion, and instructor raises. Chen and Hoshower's students also ranked faculty tenure, promotion, and salary increases as least important. The students of University M, for the most part, agreed with both studies. 'Improve instruction' was ranked first by 60%, 'improve course content' was ranked second by 51%, 'instructor tenure' was ranked third by 37%, 'instructor promotion' was ranked fourth by 42%, and 'instructor raises' was ranked fifth by 43%. Since the number one reason chosen for conducting evaluation was instructional improvement, it is disappointing to note that instructional improvement is often not an evaluation result (Kulik & McKeachie, as cited by Reid & Johnston, 1999; Neumann, 2000). For change to occur, the faculty member must acknowledge their teaching practices were incorrect but even if this occurs, there is no assurance that the change is not just temporary (Reid & Johnston). Both Reid and Johnston and Algozzine, et al. (2004) agree that procedures that provide quality control are in order. Actions that are most likely to affect the students were ranked highest by the University M students.

*Research Question Four: What do students perceive as motivational for providing valid and reliable responses for student evaluations?*

Evaluations furnish relevant data (Vrasidas, et al., 2003) but only if students are motivated to provide carefully considered and honestly stated information.

#### *Motivational*

While a large number of students believed all 10 options listed to be motivators, a majority of the students felt that the following reasons would encourage the provision of

valid responses (high 79% to low 58%): prior evaluation responses addressed by instructor, instructor believes in evaluation process, administration believes in evaluation process, evaluation questions not generic, prior evaluation responses addressed by administration, questions written that accurately portray events, and evaluations were provided during the course. Options ranked by less than 50% but fell in a range of 48% to 42% were: examples provided, evaluation form lists use, and detailed responses were allowed. In order to motivate students to provide valid and reliable evaluation information, (a) students must be informed that the data will be used in a manner that will benefit them, (b) only evaluation questions that are pertinent to the course should be used, and (c) evidence should be provided that instructors and administrators believe in the evaluation process. The high rankings of the remaining options leads one to believe that many students would appreciate changes affecting the development by providing a little more question clarification, the use of open-ended questions, and placing uses of evaluation data on the form.

A review of literature found many defects and recommendations for the evaluation process. One major flaw in evaluations is that it provides answers only to the questions it asks (Tricker, et al., 2001). Twigg (2001) adds that based on the amount of information needed, one end-of-semester evaluation is inadequate. Chen and Hoshower (1998) suggested placing information on the evaluation form to inform students of how previous feedback was used so students can see that changes have been made. Tyler (2002) encouraged the use of language that fits the audience and the avoidance of jargon that may not be understood by the student. In order to make the evaluation more course specific, it was recommended that faculty be allowed to add items to the evaluation form

(Emery, et al., 2003; McKeachie, 1996; Naugle, et al., 2000). If faculty were allowed to add items of interest to them, one could expect an increase in compliance to change.

### *Less Serious Responses*

To further validate these motivational findings, students were asked what would influence them to respond less seriously. In the motivation section, 79% of the students responded prior evaluation responses addressed by the instructor would serve as a motivator. This matched exactly the results of the less serious section; 79% response for ‘expectations that the responses will not be addressed.’ ‘Using questions that do not pertain’ garnered 72% in the less serious responses while ‘evaluation questions not generic’ earned agreement by 68% in the motivation area. Once again a close match was found between the less serious response ‘questions failed to accurately describe experience’ (58%) and the motivation area statement that ‘questions written that accurately portray events’ (60%). What was surprising is the lower response identifying ‘failure to benefit from the evaluation’ (47%) in contributing to a less serious reply on evaluations. One would assume that if students had high expectations of their evaluation responses being addressed (79%) that it would be a result of their desire to receive the benefit.

*Research Question Five: What key questions are perceived to be valid and useful for evaluating web courses?*

As mentioned earlier in this chapter, for successful distance programs, evaluations must contain the right questions in order to get useful information (Tricker, et al., 2001); information that is not invalid or missing. When responding to any of the questions listed in the survey question, “what questions do you feel would aid in acquiring valid and

useful information in the evaluation of web-based courses that are not found on evaluation instruments used for a traditional course,” it was assumed that the student indeed acknowledged the particular question had not been used on a traditional evaluation form.

University M students agreed that the question regarding the ‘amount and quality of communication between instructor and student’ (amount 77%, quality 77%) is not typically found on a web-based evaluation form but should be. In the same general area of communication, a surprise was found that only 41% of the students felt the amount of communication student-to-student and 27% of the students felt that the quality of student-to-student communication ranked high enough to include. If a majority of the students feel they are not asked about communication between the instructor and student but should be, then this could quite possibly be identified as a problem area of web-based courses and deserves placement on web course evaluations.

Easton (2003) listed virtual communication as a distance education challenge. Tricker, et al. (2001) also supported this idea, stating a need for frequent and high quality communication to make up for the lack of face-to-face interaction. Keeton (2004) recognized the greater potential of finding more cultural difference in the distance environment, meaning student-to-student communications will be affected more than ever. Easton (2003) recommended creating and sharing a communication plan prior to the course beginning to help alleviate some of the communication problems that are bound to result from the physical separation of the student and instructor and the student-to-student.

Despite the findings on communication, University M students responded at a rate of 27% on the importance of including the ‘development of a community’ on an evaluation form. This would signify that they failed to recognize the importance of building a community. One can communicate without ever building a community but communication is vital to community development. Learning communities generally do not occur on their own; instead, careful thought and planning by the instructor is required and it is important that the educator be aware of this responsibility (Dewey, as cited by Bruffee, 1999). Communities of learners have been identified as necessary for the successful distance education courses, requiring community questions on web course evaluations. In addition, if questions regarding the building of a community are esteemed to be necessary for evaluation, questions regarding communication student-to-student must warrant inclusion.

Educators have other responsibilities associated with the pedagogy used for teaching at a distance. A majority of the students felt questions regarding ‘effective organization for online delivery,’ ‘web-based delivery appropriateness,’ ‘amount of information sufficient for learning at a distance,’ written communication capabilities of instructor in online course, and ‘resource instructions provided’ should be available for evaluation of web-based courses. If students feel they are not asked about these areas but should be, then these elements can quite possibly be identified as problem areas of web-based courses.

When creating course content and delivery methods, faculty tend to transfer their knowledge to the student in the same manner it was experienced by them (Bruffee, 1999), which was most likely not in a distance learning environment. One of the dominant

factors in distance learning is course materials which need to have high readability and logical structure (Tricker, et al., 2001). This confirms Berge and Collins' (1995) statement, mentioned earlier, that distance learning teachers must have greater written presentation skills. It was further recommended that the instructor should view the materials and media as they will appear to the students (Tricker, et al.). Willis (1993) stressed that instructors should match the appropriateness of the content being delivered to the delivery methods used. With the obstacles present while learning at a distance, students need good resources and tools to reach their learning goals (Keeton, et al., 2004) which are accessed differently by distance students (Stella & Gnanam, 2004).

Surprisingly, 'appropriate use of technology' was ranked for placement on a web-based course evaluation by less than 50% of the students. Past research placed a higher emphasis on its importance, leading to the development of guiding principles by Miller and King (2003). These principles included: (a) technologies used throughout the course should be consistent and coherent; (b) if distance education programs do not require students to have standard technological competencies prior to enrollment in distance education, educators should be aware of the competencies of their students; (c) the technologies used in the course must be appropriate for the curriculum; and (d) student learning styles, cultural, and individual differences should be taken into account. The fact that technologies used in distance courses are now standardized and/or that appropriate use of technology questions are currently found on evaluations could account for the lower emphasis shown in the findings.

*Research Question Six: Other than end-of-course student evaluations, what additional course feedback is currently required of students that would provide course assessment information for web courses?*

Feedback is a two-way street. Information collected from students during the course provides guidance to the instructor on how to proceed. In the traditional classroom setting, the instructor is provided with a better opportunity to receive instant feedback as to whether the students are experiencing difficulty with the assignments, technology, or personal issues (Benigno & Trentin, 2000).

According to the findings, 68% of the students had not received a request to provide additional course feedback other than end-of-course evaluations. Distance students should be afforded the same amount of feedback that would be present in face-to-face instructional settings. Without additional feedback transpiring, this sameness is not occurring for the web-based students.

A majority of the students found very little to recommend as useful feedback of the options provided. The most popular choices, as voted by the majority, were student progress reports (67%) and assessment following each course section (50%). Slightly less than the majority selected assessment of the student's aptitude as a web course participant (38%), request of information on course experiences from the Distance Education department (46%), and pre-assessment of the student's technological abilities (44%). Only 19% felt demographic analysis was warranted. Since the importance of feedback has been addressed earlier in this chapter, it was surprising to note that students may not be as aware of its importance.

*Research Question Seven: If additional student feedback, other than end-of-course student evaluations, is a part of the distance education evaluation system, when does it occur?*

Additional student feedback was found to have occurred never (43%); at the beginning of the course, in order to seek information on the student (27%); after each course section was covered (26%); and after each exam (25%). The lack of feedback events throughout the course signifies (a) course improvement is less likely to occur, (b) less is known about the enrolled students, and (c) less student satisfaction with the course will be experienced.

*Research Question Eight: In order to maximize the use of feedback provided from student evaluation instruments, when does the student perceive the request(s) for information should occur?*

Achtemeier, et al. (2003) stated feedback and instruction in online courses should be continuous and Laverie (2002) recommended establishing a student management team to help collect this information for the instructor. The positive connection to the improvement of teaching has been witnessed when evaluations are utilized in the first half of the semester (Anonymous, 1999). Students want feedback on assignments, but also desire more frequent and faster feedback and regular instructor interactions (Shea, et al., 2001). Miller and King (2003) noted several authors with the belief that feedback, whether negative or positive, should always be timely. Keeton, et al. (as cited by Keeton, 2004), recommended that instructors create and articulate a feedback strategy or process that is agreeable to the students.

A majority was not found in the student recommended course evaluation frequency that would maximize the benefit to students during the length of the course. This lack of majority does not mean students were against evaluation because only 3% stated evaluations should never occur. The highest percentage of students (36%) felt that a monthly evaluation was required. The second highest percentage (27%) recommended a frequency of 'every 3 weeks.'

The best time to conduct an evaluation during the course was chosen to be '3 times per semester' by a majority of 50%. This frequency comes close to the favorite response of student belief that a monthly evaluation was required. Close to one-third of the students recommended an evaluation take place at the course beginning (36%), after each exam (32%), and after each course section (30%). Once again, only 3% felt that evaluations should never take place.

*Research Question Nine: What media is preferred by students for the student evaluation of web courses?*

While a large majority of the students (94%) deemed a web form was appropriate media for the evaluation of web-based courses, 26 students believed the use of both paper and web evaluation forms were suitable. Since findings were earlier reported that 99.8% of the student complete online course evaluations, media satisfaction appears to be almost guaranteed.

*Research Question Ten: What percentage of students perceives themselves as customers?*

There is a movement growing in the United States for institutions (Tricker, et al., 2001), state government (Simon & Soliman, 2003; Simpson & Siguaw, 2000), and more mature students (Budd, 2002) to view the student as customers. Traditional and non-

traditional students at University M agreed with this concept at a rate of 78%. This researcher feels the rate will only increase with the rising cost of higher education. More students will expect a greater return on the time and money spent on receiving an education.

The student as a customer belief may add to the uses of the student evaluation, which unfortunately is already said to have too many purposes to be valid. Twigg (2001) thought the student evaluation questions should focus on providing the information for which students are looking for and abandoning the quest for quality improvement data that institutions are seeking. Barnes (2001) and Martinson (2000) felt the use of student evaluations was a strong indicator that supports the 'student as customer' concept. Care must be used when adopting the 'student as customer philosophy' because in industry it is often believed that the customer is never wrong (Martinson). This 'never wrong' concept is not reasonable if educators are to provide quality education.

*Research Question 11: As a student, do you feel competent in your ability to evaluate a course?*

An overwhelming amount of students (99%) felt they were competent to evaluate courses, leaving only 6 out of 430 students acknowledging ineptitude. Even though almost all of the students stated they did feel competent, some of these same competent students had reservations. This was evidenced by having slightly more than 6 responses on several of the 'reasons why a student is not competent' options. A majority was found on only one of the 'not competent' options. Ten students felt they were unable to recognize bias. Those that ranked lower than the majority were (high to low): other, inability to identify what qualifies as good teaching methods, use of unfamiliar

terminology, belief that evaluations are not the student's responsibility, and inability to separate feelings for course topics from evaluations on the instructor and instructor's methods. The reasons students felt competent in conducting evaluations were all agreed upon by over a majority of the students. Competency beliefs include (high to low): understand learning and if needs are met, would not use evaluations to harm another, understand the need for evaluations, students are the ones who constantly interact with the instructor, and administrators are the actual evaluators.

Several negative statements have been made about students in regard to their position as course evaluator. Students are said to be incapable of separating themselves from biases (Soderberg, as cited by Laverie, 2002). Many studies have stated that students lack the ability to identify characteristics or features of effective teaching (Abrami, as cited by Laverie, 2002; Cashin, Seldin, Centra, as cited by Chen & Hoshower, 1998; see also Martin, 1998) due to lack of critical thinking skills (Adams, as cited by Emery, et al., 2003).

On the other hand, many positive things have been expressed on student evaluation competencies. Reid and Johnston (1999) and Feldman (as cited by Anonymous, 1999) found in their studies that faculty and students similarly ranked effective teaching elements. Students are judged to be smart enough to know when instructors invest energy and resources in their courses (Paswan & Young, 2002). Spencer and Schmelkin's (2002) study returned findings that students do understand the importance of evaluations. According to McKeachie (1996) students are not the actual evaluators but Spencer and Schmelkin study did find them worthy of providing course evaluation data. For the good of the program, course evaluations must be conducted.

Students are recognized by some as being the best source of information since it is only students that are active in the course process from start to finish (Cross & Angelo, as cited by Laverie, 2002; Twigg, 2001). Students believe themselves to be competent evaluators but the right motivation, which encompasses the many different areas in the evaluation process, must be present.

### *Implications*

Numerous implications resulted from this study. This section will identify the implications, propose what should be done, and explain ways to achieve these proposals.

*Implication One: An ineffective evaluation of web-based courses occurs when traditional evaluations are used for evaluating web-based courses.*

For an evaluation to be valid, it must measure what it was developed to measure. Based on the evidence found in this study, there is enough difference found between web-based and traditional courses to warrant the development of a new evaluation form. Two main benefits of creating an evaluation instrument more suited to web-based courses include the prevention of missing data that could provide greater understanding or portrayal of what actually occurs in the course and insights that could also change the way traditional courses are taught. This is not to state that the foundation of a traditional course evaluation form should be scrapped, but modified so that important data is not lost. In particular, yet dependent upon the current evaluation in use, modification should occur in regard to questions asked on the following topics: technologies utilized and available instructions; communication, both instructor-to-student and student-to-student; quantity and quality of activities or exercises; content utilization and organization; two-way feedback, instructor to student and student to instructor; quality of teaching methods;

learning experience and learning guide; feelings of belonging to a community, and appropriateness of role taken by the instructor.

*Implication Two: Changes experienced by traditional course environments may result in ineffective evaluations of traditional courses.*

Institutions will suffer from a double jeopardy if evaluation processes for both web-based and traditional courses are not reevaluated and changed. As more and more traditional classrooms incorporate technology or other characteristics into its environment that are common with the environment of distance education courses, resulting in what has been referred to as hybrid or blended courses, traditional course evaluations may also require amendments to remain valid and reliable instruments. With this in mind, modifications to the questions listed above may also prove pertinent for traditional evaluations.

*Implication Three: Students believe they are customers of the university.*

Instructors and administrators must heed the fact that students believe themselves to be customers of colleges and universities. When not satisfied in the industry, customers go elsewhere for satisfaction. Distance students are able to change universities without ever leaving the house. If the university fails to recognize or address the 'students as customers' concept, enrollments will suffer. Consider the following example of a department store and a university to glean an understanding how the sales person in a department store can affect how we feel about that store. In a customer scenario, the customer 'needs' to feel the service provider was enthusiastic about the product in order to aid the customer in feeling enthusiasm. The customer also desires a demonstrated interest in the customer and the product, and wants to know the sales person is concerned

that the product produces customer satisfaction. As disagreeable and unpopular as this may sound, customer service training is considered necessary for instructors, staff, and administrators.

*Implication Four: Technologies used in web-based courses remain problematic for students.*

While this was not evidenced in the survey results, it can be generally accepted that ever-changing technologies will always present learning curves in students. To reduce this problem, institutions could create a standardized technology plan for technology used with distance education courses. Familiarity with the technology would then occur after completing the first distance course, freeing students to spend their time and concentration on the actual course. Proper training for faculty, regarding the use of technology in distance education courses, is recommended.

*Implication Five: Student evaluations are typically administered when it is too late for improvement in the current course.*

End-of-course evaluations were frequently shown to be the only evaluation that both web-based and traditional courses experience. As a result, current students may possibly have been forced to suffer a very unsatisfactory experience. Continuous, briefer evaluations, based on particular time periods of the course, are necessary unless one is seeking improvements for only the next group of students.

*Implication Six: Evaluation form design flaws are present.*

Several recommendations for the development of questions were found in this study. One suggestion was that questions should be created that will accurately describe course experiences. Second, questions that do not pertain to the course being evaluated

should be avoided. Third, generic questions should not be circumvented. These questions were found to motivate or de-motivate valid and reliable evaluation responses and should be considered during the evaluation development phase. In addition, several questions were identified as not being included on evaluations that would address web-based course uniqueness. It is recommended that questions addressing effective organization for online delivery, web-based delivery appropriateness, the sufficiency of information provided for learning at a distance, written communication capabilities of instructor in online course, and adequacy of resource instructions provided should be included.

*Implication Seven: Lack of building a community is evidenced in web-based courses.*

Literature reviews discussed the importance of community building with students who learn at a distance. Results of the study showed that little difference was found in the community found in the web-based course in comparison with their traditional courses. With the special characteristics associated with distance education, special measures should be taken to see that communities are established. Choosing exercises or activities that are collaborative will increase the potential for developing a community of learners. In addition, frequent use of online discussion or bulletin boards will also assist with this endeavor. Professional development on how to build a community for traditional and web-based courses is needed.

*Implication Eight: Lack of adequate feedback occurs with web-based courses.*

Feedback takes on additional importance with distance courses based on the isolation associated with learning at a distance. Distance students deserve to receive the same amount of feedback that would be present in the traditional classroom. Faculty should provide more feedback to web-based course students in order to reach this goal.

An increase in the amount of instructor-student and student-instructor communication provides additional opportunities for feedback to occur. Using the different types of evaluations (i.e., pre-evaluation of technological abilities, collection of demographic information, evaluation of student web course aptitude, progress reports, evaluations following each course section) throughout the length of the course would provide valuable feedback to both the faculty member and the student. Professional development strategies on the use of feedback are in order.

*Implication Nine: Students must be motivated to provide valid and reliable evaluation responses.*

Students are frequently accused of failing to take course evaluations seriously and providing less than valid responses. In order to motivate students to provide valid and reliable evaluation information, changes must be made in the evaluation process. Students must be informed that the data will be used in a manner that will benefit them. Evaluation activities should occur during the course so changes can be made prior to course end. Faculty members can then inform students when changes are made during the course. The second solution is to include only pertinent course questions on the evaluation form. Third, instructors and administrators must demonstrate their belief in the evaluation system. This can be accomplished by exhibiting and speaking in a more positive manner when evaluation topics or activities occur.

#### *Future Research*

Assessment of whether or not faculty are adequately prepared to teach at a distance, especially in light of the fact that faculty tend to teach in the same manner in which they were taught, is definitely warranted. A check list that would help identify the

preparedness of the faculty member before they are responsible for distance student learning would help the students and program. Instructor training should be required before faculty are considered qualified to teach distance courses which necessitates the discovery of quality training programs. Support staff that is needed to assist faculty members when making the transition from a face-to-face to a virtual environment should be identified.

It has been stressed that instructors should not simply take their traditional course materials and place them on the web then call it a web course. Research is needed to help develop effective models of distance learning.

With the advent of distance education, the manner in which these courses are evaluated has created a great deal of discussion and even debate. Exams are one of the most popular methods used for assessing learning but many are skeptical when testing students at a distance; inability to prove who is actually taking the exam and other concerns abound. New assessment tools and ways of applying them are available to verify learning outcomes and achievements should be discovered.

Distance education programs in some universities were developed very quickly, with little or no policies providing guidance. Policies on distance education that have been developed or are needed for distance education programs should be reviewed.

The literature has stated that traditional courses are becoming more of a hybrid course, based on faculty carry-over of features from the distance courses taught. Research is needed to identify what distance education features are being blended and appear to work in the traditional classroom. Investigations on whether traditional evaluation instruments are properly evaluating blended features should be conducted.

Research is needed to identify the extent changes are made as a result of evaluations and how administrators can increase the use of the evaluation data by faculty. If the main reason for conducting evaluations is for course and content improvement, the administrators should take responsibility to ensure the information is used.

Rather than making the statement that students do not understand the concept of what makes teaching effective, faculty should take responsibility for educating them on this topic. The role of teacher occurs in almost everyone's life at some time or another and knowledge gained on effective teaching further serves their education. Discrepancies of student definitions for effective teaching should be identified.

While most authors in the literature frequently take the position that it is the older, more mature student, living at a distance that make up the majority of the distance students, this may no longer hold true. Discoveries of exactly who the distance students are will help institutions develop programs that will more accurately meet the needs of their distance students. If the distance education population now consists of students taking courses both on and off campus, then university enrollments of new students will not truly grow at the expected higher rate and campus held classes may diminish in size.

### *Summary*

This study was conducted in order to disclose principles that affect course evaluation instruments and systems. During this process, information was provided that also lead to the discovery of pedagogy improvements needed in the teaching of web-based courses.

Findings in this study demonstrated differences in the organization or structure, engagement in learning, and monitoring methods used for traditional and web-based

courses. Students recognized the following differences in the organization or structure of web-based versus traditional courses: (a) increased responsibility for learning, (b) increased use of online discussions, (c) increased use of bulletin boards, (d) increased frequency of progress reports, and (e) increased number of activities assigned. As for engagement of learning differences, more than half of the students realized a difference in: (a) course control by instructor, (b) use of course guidelines, (c) technology instructions provided, and (d) provision of road map for learning. More than half witnessed a difference in the following methods: (a) online discussions monitoring, (b) student comprehension monitoring, and (c) student interaction monitoring.

Several types of evaluations can occur but no difference was noted in the frequency of occurrence for traditional and web-based courses. More than half of the students experienced an evaluation only one time during the length of the course in both traditional and web-based courses.

Evaluations may or may not place more emphasis on the questions asked dependent upon the course type. In this study, more than half of the students found more emphasis placed in the traditional course evaluation on the topics regarding the learning environment and interaction among students. More than half the students found more emphasis placed in the web-based course evaluation on the topics regarding technologies used and technical assistance. More than half the students found equal emphasis placed on both traditional and web-based evaluations on the topics regarding learning competence, preparation for further study, educational approach, and course materials. All the remaining topics were found to be less equal in association to either course type.

Evaluation media generally takes two forms, paper or online. The majority of evaluations for traditional courses at University M are conducted on paper. For the majority of web-based evaluations, online media is used. This agrees with what a majority of the students felt should be used. Traditional evaluation instruments were also found not to be appropriate for evaluating web-based courses due to the unique characteristics of these courses.

Use of evaluation data is a much disputed topic. When students were asked to rank how evaluation data should be used, the purposes were as follows (high to low): improve instruction, improve course content, instructor tenure, instructor promotion, and instructor raises. A majority was found on only the first two rankings.

For evaluation data to be useful, students must be motivated to provide valid and reliable responses. University M students elected, by majority vote, the following motivators: (a) prior evaluation responses addressed by the instructor, (b) belief in the evaluation process by instructor, (c) belief in the evaluation process by administration, (d) use of non-generic questions, (e) prior evaluation responses addressed by administration, (f) use of questions that accurately portray events, and (g) evaluations that are submitted during the course—not at course end. De-motivators are identified by a majority as being: (a) expectations that the responses will not be addressed, (b) use of non-pertinent questions, and (c) using questions that fail to accurately describe the experience.

Since students rarely have the opportunity to provide input on the questions found on an evaluation, it was pertinent to get their opinion in this study. Questions that were not found on web-based course evaluations but should be were identified by the majority as being: (a) quantity of instructor-student communication, (b) quality of communication

between instructor-student, (c) organization effectiveness for online delivery, (d) web-based delivery appropriateness, (e) quantity of information sufficient for learning at a distance, (f) capabilities of written communication by instructor in online courses, and (g) resource instruction.

Feedback occurs bi-directionally and is especially critical for distance learners. A majority of University M students said that additional feedback, other than end-of-course evaluation was not requested. To take this discovery one step further, students were asked what type of feedback could be considered as useful for the instructor. More than half of the students listed only two: (a) student progress reports and (b) assessment of course sections. Less than a majority of the respondents indicated when additional student feedback should occur or on the frequency student evaluations were considered necessary.

Disagreement was found in the literature review as to whether or not a student is a customer of the university. University M opinion, by more than half the students, was that students are indeed customers.

Competency of students as evaluators is debated frequently in the research. At University M, an overwhelming majority of the students felt competent to fulfill this role. The majority considered themselves competent because: (a) students understand when learning occurs and know if needs are met, (b) students understand the need for evaluation, (c) students would not use evaluations to harm another, (d) students are the ones who constantly interact with the instructor, and (e) administrators are the actual evaluators.

The differences and uniqueness identified by the students in this study, along with the student perception that web-based courses should use an evaluation instrument that accurately portrays valuable information regarding this uniqueness, emphasizes the need for the development or use of web-based course specific evaluations instruments.

Framework for the web-based evaluation system was discovered to involve: (a) evaluation design and format, (b) evaluation questions used and the manner in which they are constructed, (c) areas that should be emphasized, (d) frequencies of feedback and evaluation needed, and (e) the motivation required for valid and reliable responses.

This study suggests that while modifications to traditional evaluation instruments may be all that is required, the entire evaluation system should be modified for web-based and other distance courses. In addition, due to the reported trend of using distance education features in traditional classroom environments, traditional evaluations must also be modified to provide valuable information that might otherwise be lost.

## APPENDIX A: RESEARCH QUESTIONS

### *Research Question 1*

What differences are recognized by students in the organization, engagement, modes of monitoring, and evaluation of web courses versus traditionally taught courses?

### *Survey Questions*

1. Instructors create models (organization or structure) for their courses. In comparison to the traditionally taught courses you have experienced, what differences did you notice about the organization or structure of your web-based courses?
2. Methods are used to engage students while learning. In comparison to traditionally taught courses you have experienced, what differences did you notice about the methods used to engage you in the learning process of your web-based courses?
3. Instructors monitor student activities, participation, and other behaviors in the classroom. What methods were used to monitor you as a student in a web-based course that differed from the traditionally taught course?
4. Evaluations can provide useful information for both faculty and administrators. In comparison to traditionally taught courses you have experienced, what differences did you notice in regard to the student evaluation process used for your web-based course?

### *Research Question 2*

What percentage of students believes the student evaluation instrument used for traditional classrooms is the appropriate tool for student evaluation of web courses?

*Survey Questions*

1. Many decisions are made by faculty and administrators based on information provided by course evaluations. Do you believe the typical questions found on student evaluation instruments used for the traditionally taught course can adequately provide valid and sufficient information in which to base decisions for web-based courses?
2. Do you consider web-based courses unique enough to qualify for the development and use of a different evaluation instrument and process in order to extract more valid and useful data?

*Research Question 3*

What do students perceive as the appropriate use of evaluation data?

*Survey Question*

1. Information collected from student evaluations is often used for different purposes. What do you feel is the most appropriate use of evaluation information?

*Research Question 4*

What do students perceive as adequate motivation for providing valid and reliable responses for student evaluations?

*Survey Questions*

1. Information provided by student evaluations is valuable only if responses are carefully considered and honestly stated. What would motivate you to provide valid and reliable responses on student evaluations?
2. What would influence you to respond to student evaluation questions less seriously?

*Research Question 5*

What key questions are perceived to be valid and useful for evaluating web courses?

*Survey Question*

1. What questions do you feel would aid in acquiring valid and useful information in the evaluation of web-based courses that are not found on evaluation instruments used for a traditional course?

*Research Question 6*

Other than end-of-course student evaluations, what additional course feedback is currently required of students that would provide course assessment information for web courses?

*Survey Questions*

1. In your experience with web courses, other than end-of-course student evaluations, was any additional course feedback that would provide course assessment required during the length of the course?
2. If not, what additional course feedback would you perceive as useful in evaluating the course?

*Research Question 7*

If additional student feedback, other than end-of-course student evaluations, is a part of the distance education evaluation system, when should it occur?

*Survey Question*

1. If additional student feedback, other than end-of-course student evaluations, was a part of the distance education evaluation system, when did it occur?

*Research Question 8*

In order to maximize the use of feedback provided from student evaluation instruments, when does the student perceive the request(s) for information should occur?

*Survey Questions*

1. How frequently should a form of evaluation take place during the length of the course?
2. What do you consider prime times for evaluations to occur during the length of the course?

*Research Question 9*

What media is preferred by students for the student evaluation of web courses?

*Survey Question*

1. What do you consider to be the appropriate media for evaluation of web courses?

*Research Question 10*

What percentage of students perceives themselves as customers?

*Survey Question*

1. In your role as a student of a university, do you perceive yourself as a customer of the university?

*Research Question 11*

Do students feel competent in their ability to evaluate a course?

*Survey Questions*

1. Do you feel competent in your ability to evaluate a course?
  - a. If no, why do you believe you do not qualify as a competent evaluator?
  - b. If yes, what do you believe qualifies you as a competent evaluator?

## APPENDIX B: E-MAIL SURVEY REQUEST

### *E-mail Survey Request*

E-mail subject line: [University M] Web Courses

[University]

[Department] [Mail Stop]

[Street Address]

[City], [State] [Zip]

[Date]

[Student Name],

I am a doctoral student enrolled in the University of Missouri-Columbia and Southeast Missouri State University cohort program of Educational Leadership and Policy Analysis. Having reached my final project, the creation of a dissertation on student evaluation of web courses, I am at a point where I desperately need your help. In order to complete my final chapters, 4 and 5, I need students that have completed at least one web course at Southeast Missouri State University during the summer and fall of 2005 and spring 2006 to provide online web-based course evaluation information on a survey instrument that I created on the web. This survey should only take 10-15 minutes of your time and can be accessed at <http://www6.semo.edu/henckell/survey.asp>.

The goal of my research is to provide information that will lead to the improvement of the evaluation process of web-based courses, with an end result of improving web courses themselves. For my study to be valid, I will need to collect responses from as many [University M] students as possible. Please help me make a

difference by completing the **confidential** survey anonymously at <http://www6.semo.edu/henckell/survey.asp>.

There are no reasonably foreseeable risks or discomforts expected to affect the participant. The web survey has abstained from any identifiers so responses to the survey are completely anonymous, therefore, confidentiality of the participants will be 100% maintained. Participation is voluntary, refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled, and you may discontinue participation at any time without or loss of benefits, to which you are otherwise entitled.

If you have questions regarding your rights as a participant in research, please feel free to contact the Campus Institutional Review Board at (573) 882-9585. In addition, if you should have any questions regarding my research or the results, please contact me via e-mail at [mhenckell@semo.edu](mailto:mhenckell@semo.edu) or telephone 573-986-6169. I would greatly appreciate your participation!

Martha Henckell, Director of User Services

APPENDIX C: E-MAIL SURVEY REQUEST REMINDER

*E-mail Survey Request Reminder*

E-mail subject line: [University M] Web Courses

[University]

[Department] [Mail Stop]

[Street Address]

[City], [State] [Zip]

[Date]

[Student Name],

One week ago, you received an e-mail request to complete a confidential web survey form that would aid my search for information that would help improve the student evaluation process of web-based courses. If you complied, you have my sincere gratitude for helping with this worthy endeavor. If time slipped away and you were unable to complete the web survey, please take the next 10-15 minutes to complete the web survey form located at <http://www6.semo.edu/henckell/survey.asp>. Your compliance would be greatly appreciated!

Reminder: There are no reasonably foreseeable risks or discomforts expected to affect the participant. The web survey has abstained from using any identifiers so responses to the survey are completely anonymous, therefore, confidentiality of the participants will be 100% maintained. Participation is voluntary, refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled, and you

may discontinue participation at any time without or loss of benefits, to which you are otherwise entitled.

If you have questions regarding your rights as a participant in research, please feel free to contact the Campus Institutional Review Board at (573) 882-9585. In addition, if you should have any questions regarding my research or the results, please contact me via e-mail at [mhenckell@semo.edu](mailto:mhenckell@semo.edu) or telephone 573-986-6169. I would greatly appreciate your participation!

Martha Henckell, Director of User Services

## APPENDIX D: SURVEY QUESTIONS

### *Demographic and Miscellaneous Questions:*

1. What is your current class level?

High School    Freshman    Sophomore    Junior  
 Senior    Graduate    Doctorate

2. What area is your major based?

Science/Math    Education    Business    Engineering  
 Liberal Arts    Computer Science    Health/Human Services  
 Undeclared    Other \_\_\_\_\_

3. How many web-based courses have you completed? \_\_\_\_\_

4. Have you completed a student evaluation of a **traditionally** taught course?

Yes    No

5. Have you completed a student evaluation of a **web-based** course?  Yes

No

6. Gender:  Male    Female

7. **Non-traditional** students meet one of the following criteria:

- Over the age of 25
- Married
- Have children
- Are veterans
- Have a GED

Please identify whether you are a traditional or non-traditional student:

Traditional    Non-traditional

*Survey Questions:*

1. Instructors create models (organization or structure) for their courses. In comparison to the traditionally taught courses you have experienced, what **differences** did you notice about the organization or structure of your web-based courses? Check **each** of the responses below that apply.

Use of online discussions or an increased use of online discussions occurred.

Use of bulletin boards or an increased use of bulletin boards occurred.

Greater emphasis was placed on building a community of students.

Improved social interactions among students occurred.

Activities or exercises were assigned that increased the amount of responsibility of the student for his/her own learning.

Overall, more activities or exercises were assigned.

Overall, more time was spent on learning the content, resulting in a deeper learning.

Information was organized in smaller, manageable pieces.

Information was presented from multiple perspectives.

Learner was kept well informed of progress.

2. Methods are used to engage students while learning. In comparison to traditionally taught courses you have experienced, what **differences** did you notice about the methods used to engage you in the learning process of your web-based courses? Check **each** of the responses below that apply.

### **The instructor...**

\_\_\_\_\_ overall, a greater variety of teaching methods were used in each component taught.

\_\_\_\_\_ 'used,' not, 'covered,' content to help the students acquire a repertoire of strategies, approaches, and techniques that can be used to master increasingly sophisticated content on their own.

\_\_\_\_\_ controlled the course less, making the students more responsible for their learning experience.

\_\_\_\_\_ took a more supportive role in the learning process.

\_\_\_\_\_ provided a greater variety of resources in the course content.

\_\_\_\_\_ placed a greater variety of presentation forms.

\_\_\_\_\_ placed greater emphasis was placed on building a community of students.

\_\_\_\_\_ provided more feedback than is typically experienced in a traditional course.

\_\_\_\_\_ fostered collegiality by requesting and sharing information on the students with the other members of the course.

\_\_\_\_\_ established a more collaborative learning environment.

\_\_\_\_\_ used course guidelines and held expectations that would aid in a successful distance learning experience were provided.

\_\_\_\_\_ provided directions on using the technological tools in the course.

\_\_\_\_\_ provided more opportunities to practice concepts learned.

\_\_\_\_\_ provided a road map for learning: what will be learned, how learning can be assessed, and how to learn.

\_\_\_\_\_ provided more learner-centered activities such as: student discussions, case studies, research of information, performance of skills, interviews, and reading learner-selected materials.

3. Instructors monitor student activities, participation, and other behaviors in the classroom. What methods were used to monitor you as a student in a web-based course that **differed** from the traditionally taught course? Check **each** of the responses below that apply.

\_\_\_\_\_ Evaluation instrument was given at the end of each course section

\_\_\_\_\_ Monitoring of the online discussions

\_\_\_\_\_ Monitoring the number of interactions of students

\_\_\_\_\_ Monitoring student comprehension of the course content other than by the use of examinations

\_\_\_\_\_ Solicitation of student comments

4. Evaluations can provide useful information for both faculty and administrators. In comparison to traditionally taught courses you have experienced, what **differences** did you notice in regard to the student evaluation process used for your web-based course?

Types of evaluations could include:

- Pre-evaluation of your technological abilities
- Evaluation of your demographic information
- Evaluation of your aptitude as a participant in a web course

- Collection of information on your progress throughout the course
- Evaluation following each section in the course
- Overall course evaluation.

A. With the various types of evaluations in mind, complete the blanks below.

Please provide the count on each separate evaluation activity, not topics included on the evaluation.

i. As part of the evaluation process, how many times, on average, are you required to complete an evaluation during a **traditional** course? Keep in mind the evaluation types listed above. \_\_\_\_\_

ii. As part of the evaluation process, how many times, on average, are you required to complete an evaluation during a **web** course? Keep in mind the evaluation types listed above. \_\_\_\_\_

B. Differences noted on the types of questions asked on traditional course evaluations versus web course evaluations:

In the table below, identify which course type placed more emphasis on the topic listed. Click in the area, ‘Trad’ for traditional course student evaluation or ‘Web’ for Web-based course student evaluations. If equal amounts of emphasis were found, click in the area titled ‘Same.’

<i>Evaluation Question Topics</i>	<i>Trad</i>	<i>Web</i>	<i>Same</i>
Learning competence	_____	_____	_____
Technologies used	_____	_____	_____
Communication	_____	_____	_____
Preparation for further study	_____	_____	_____

Course design	_____	_____	_____
Course activities	_____	_____	_____
Course assignments	_____	_____	_____
Learning environment	_____	_____	_____
Instructor support	_____	_____	_____
Technical assistance	_____	_____	_____
Educational approach	_____	_____	_____
Course materials	_____	_____	_____
Methods used to provide information	_____	_____	_____
Course organization or structure	_____	_____	_____
Instructor feedback	_____	_____	_____
Instructional style	_____	_____	_____
Interaction among students	_____	_____	_____
Active learning	_____	_____	_____

C. Please respond to the following questions regarding the design or format of the evaluation tool by checking one response on each statement below.

**Web** course evaluations contain \_\_\_\_\_ **More**, \_\_\_\_\_ **Less**, or \_\_\_\_\_ **Same** number of open-ended questions.

The **traditional courses** I have completed are most frequently evaluated on:

Paper \_\_\_\_\_ Online \_\_\_\_\_

The **Web courses** I have completed are most frequently evaluated on:

Paper \_\_\_\_\_ Online \_\_\_\_\_

5. Many decisions are made by faculty and administrators based on information provided by course evaluations. Do you believe the typical questions found on student evaluation instruments used for the traditionally taught course can adequately provide valid and sufficient information in which to base decisions for web-based courses?

\_\_\_\_\_ Yes, traditional course student evaluation instruments can adequately provide valid and sufficient information to base decisions for web-based courses.

\_\_\_\_\_ No, traditional course student evaluation instruments can not adequately provide valid and sufficient information to base decisions for web-based courses.

6. Do you consider web-based courses unique enough to qualify for the development and use of a different evaluation instrument and process in order to extract more valid and useful data? (Evaluation process: when to evaluate, what to evaluate, how to evaluate, etc.)

\_\_\_\_\_ Yes, a different evaluation instrument should be developed for Web courses to ensure valid and useful data is collected.

\_\_\_\_\_ No, web courses are NOT unique enough to require a different student evaluation instrument. It is not believed that a different instrument for web courses would help collect more useful data or affect data validity.

7. Information collected from student evaluations are often used for different purposes. What do you feel is the most appropriate use of evaluation information? Rank the list below using a 1 to 6 scale, with 1 being the most important:

- Improve instruction
- Improve course content
- Instructor raises
- Instructor promotion
- Instructor tenure

8. Information provided by student evaluations is valuable only if responses are carefully considered and honestly stated. What would motivate you to provide valid and reliable responses on student evaluations? Check **each** of the responses below that apply.

- Demonstration that the responses from prior evaluations were addressed by the **instructor**
- Demonstration that the responses from prior evaluations were addressed by the **department administration**
- Knowing the **instructor** believes in the evaluation process
- Knowing the **department administration** believes in the evaluation process
- Questions used on the evaluation were written in a less generic style and focused more on the subject area of the course
- If surveys were provided during the course instead of at the end of the course when there is little benefit to the current student
- If the uses of the evaluation were listed on the evaluation form
- If area for detailed responses were provided

\_\_\_\_\_ If examples were provided to help clarify exactly what information is being sought

\_\_\_\_\_ If questions were written in a manner that truly would depict what actually occurred

9. What would influence you to respond to student evaluation questions less seriously? Check **each** of the responses below that apply.

\_\_\_\_\_ Expectations that the responses will not be addressed

\_\_\_\_\_ Use of questions on the form that do not directly pertain to the course being evaluated

\_\_\_\_\_ Failure to provide the evaluation at a time when I would benefit by any improvements made as a result of the responses

\_\_\_\_\_ My belief that students use the evaluations as popularity votes rather than responding truthfully to each question

\_\_\_\_\_ My belief that most students are not competent to accurately complete course evaluations

\_\_\_\_\_ When the questions appear to be written in a manner that would provide positive feedback which would not accurately describe the experience

10. What questions do you feel would aid in acquiring valid and useful information in the evaluation of web-based courses that are **not** found on evaluation instruments used for a traditional course? Check **each** of the responses below that apply.

\_\_\_\_\_ More questions regarding the appropriate use of technology

\_\_\_\_\_ Questions or additional questions regarding the amount of communication that occurred **between the instructor and the student**

\_\_\_\_\_ Questions or additional questions regarding the amount of communication that occurred **between the students**

\_\_\_\_\_ Questions or additional questions regarding the quality of the communication that occurred **between the instructor and the student**

\_\_\_\_\_ Questions or additional questions regarding the quality of the communication that occurred **between the students**

\_\_\_\_\_ Was a community developed between the distance students?

\_\_\_\_\_ Was the instructor able to use written communication well enough to conduct an online course?

\_\_\_\_\_ Did the organization of the course appear to be effective for online delivery?

\_\_\_\_\_ Were resource instructions provided in a manner that assisted students who did not have access or in-depth knowledge of the campus resources?

\_\_\_\_\_ Was this course appropriate for web-based delivery?

\_\_\_\_\_ Was the amount of instructor provided detail on your subject matter sufficient in compensating for learning at a distance?

11. In your experience with web courses, other than end-of-course student evaluations, was any additional course feedback that would provide course assessment required during the length of the course?

\_\_\_\_\_ Yes, additional course assessment information was requested.

No, additional course assessment information was not requested.

12. If not, what additional course feedback would you perceive as useful in evaluating the course? Check **each** of the responses below that apply.

Pre-assessment of your technological abilities

Analysis of your demographic information

Assessment of your aptitude as a participant in a web-based course

Collection of information on your progress throughout the course

Assessment following each section in the course

Request of information on course experiences by the Distance  
Education Department

13. If additional student feedback, other than end-of-course student evaluations, was a part of the distance education evaluation system, when did it occur? Check **each** of the responses below that apply.

At the beginning of the course, to seek student information

After each course section was covered

After each exam

Never

14. How frequently should some form of evaluation take place during the length of the course? Check **each** of the responses below that apply.

Once

Weekly

Every 3 weeks

Every 5 weeks

Monthly

Never

15. What do you consider prime times for evaluations to occur during the length of the course? Check **each** of the responses below that apply.

At the beginning of the course to seek student information

After each course section is covered

After each exam has been assigned

Three times per semester/every 5 weeks

Never

16. What do you consider to be the appropriate media for evaluation of web courses?

Check **each** of the responses below that apply.

Paper form to be mailed to instructor or university

Web form to be completed on the Internet.

17. In your role as a student of a university, do you perceive yourself as a customer of the university?  Yes  No

18. Do you feel competent in your ability to evaluate a course?

Yes  No

a. If no, why do you believe you do not qualify as a competent evaluator?

Check **each** of the responses below that apply.

Terminology used on course evaluations is unfamiliar

Evaluation of courses are not the student's responsibility

I am unable to recognize any bias I may have that may distort the results

\_\_\_ As a student, I do not know what qualifies as good teaching

\_\_\_ I am unable to separate my feelings for the course topics from my evaluations for the instructor and instructor's methods

b. If yes, what do you believe qualifies you as a competent evaluator?

Check **each** of the responses below that apply.

\_\_\_ I understand how I learn and know whether the instructor met my learning needs.

\_\_\_ I understand the need for conducting evaluations.

\_\_\_ I am mature enough to not use an evaluation to purposely harm another.

\_\_\_ As the student, I am the one who is constantly interacting with the instructor and evaluations provide feedback on those interactions.

\_\_\_ I believe I am only providing information from my experiences and/or observations and it is the administrators that are evaluating the information provided.

## APPENDIX E: PILOT E-MAIL SURVEY REQUEST

### *Pilot E-mail Survey Request*

E-mail subject line: Request for Assistance

[University]

[Department] [Mail Stop]

[Street Address]

[City], [State] [Zip]

[Date]

[Pilot Member Name],

As you know, I am a doctoral candidate for Southeast Missouri State University and University of Missouri-Columbia's cohort program of Educational Leadership and Policy Analysis. Currently, I am entering the final phase of my dissertation and find that I have a great need of your assistance to make my project, *Evaluating Distance Education*, the best it can be. The goal of my study is to discover the student aspect of the evaluation process conducted on web courses; in particular, whether students believe there are differences in web courses that warrant a different evaluation process than is typically used for traditional courses. The ultimate benefit of this study is to provide insight to educators that will contribute to the improvement of web course evaluation processes.

A web form survey has been developed for students that have completed at least one web course in the summer and fall of 2005 and spring of 2006 at [University M]. In addition, the students must have completed one traditional course and must be currently enrolled at the university.

Please assist me in my endeavor by taking two actions, 1) complete the **confidential** survey form created for the actual student participants in this study, located at <http://www6.semo.edu/henckell/survey.asp> and 2) provide feedback that will aid in the improvement of my student survey prior to its distribution to the student participants, located at <http://www6.semo.edu/henckell/pilot.asp>. Both surveys should take you 10 minutes each to complete.

There are no reasonably foreseeable risks or discomforts expected to affect the participant. The web survey has abstained from any identifiers so responses to the survey are completely anonymous, therefore, confidentiality of the participants will be 100% maintained. Participation is voluntary, refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled, and you may discontinue participation at any time without or loss of benefits, to which you are otherwise entitled.

If you have questions regarding your rights as a participant in research, please feel free to contact the Campus Institutional Review Board at (573) 882-9585. In addition, if you should have any questions regarding my research or the results, please contact me via e-mail at [mhenckell@semo.edu](mailto:mhenckell@semo.edu) or telephone 573-986-6169. I would greatly appreciate your participation!

Martha Henckell, Director of User Services

APPENDIX F:

*Pilot E-mail Survey Request Reminder*

E-mail subject line: 2<sup>nd</sup> Request for Assistance

[University]

[Department] [Mail Stop]

[Street Address]

[City], [State] [Zip]

[Date]

[Pilot Member Name],

One week ago, you received an e-mail request to complete a confidential web survey form that would aid my search for information that would help improve the student evaluation process of web courses. If you complied, you have my sincere gratitude for helping with this worthy endeavor. If time slipped away and you were unable to complete the web survey, please take the next 10-20 minutes to complete the web survey form located at <http://www6.semo.edu/henckell/survey.asp> and the pilot group feedback form at <http://www6.semo.edu/henckell/pilot.asp>. Your compliance would be greatly appreciated!

Reminder: There are no reasonably foreseeable risks or discomforts expected to affect the participant. The web survey has abstained from any identifiers so responses to the survey are completely anonymous, therefore, confidentiality of the participants will be 100% maintained. Participation is voluntary, refusal to participate will involve no

penalty or loss of benefits to which you are otherwise entitled, and you may discontinue participation at any time without or loss of benefits, to which you are otherwise entitled.

If you have questions regarding your rights as a participant in research, please feel free to contact the Campus Institutional Review Board at (573) 882-9585. In addition, if you should have any questions regarding my research or the results, please contact me via e-mail at [mhenckell@semo.edu](mailto:mhenckell@semo.edu) or telephone 573-986-6169. I would greatly appreciate your participation!

Martha Henckell, Director of User Services

## APPENDIX G: PILOT FEEDBACK QUESTIONS

### *Pilot Feedback Questions*

1. Do you feel the survey can be completed in the estimated 10-15 minutes? If not, what length of time should be stated?
2. For some questions, options or selections were provided for student use. Please identify the question number and any coinciding responses that would further aid in the collection of pertinent information.
3. Please identify any questions by number that were unclear and provide suggestions as to how they should be reworded.
4. Please list any additional improvements you feel would add to the validity and reliability of the student survey.
5. Please provide your suggestions or recommendations for the web form created for this survey.

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## VITA

Mary Martha Henckell was born in Sikeston, Missouri, to Glen and Clara Jones. Her education has been a lifelong process and as a non-traditional student received an Associate of Science from Shawnee Community College in 1991, a Bachelor of Science degree in Secondary Education/Business Education from Southeast Missouri State University in 1994, a Master of Science degree in Administration from Southeast Missouri State University in 2000, and a Doctorate of Education in Educational Leadership and Policy Analysis from University of Missouri—Columbia in 2007. Thesis and dissertation titles include: *Accommodating the Disabled in the Workplace in Accordance with the Americans Disabilities Act* and *Evaluating Distance Education: The Student Perspective*.

Martha's professional roles have provided her with experience and expanded her knowledge in leadership, management, supervision, teaching, and technology. Currently, she is the Director of User Services in the Information Technology Department at Southeast Missouri State University, where she has been employed for the past 10 years. In this position, she is responsible for three departmental units: Help Desk, ResNet, and Open Computer Labs. Responsibilities include providing a multitude of information technology services to students, faculty, staff, and community. In addition, she is the coordinator of the Banner Administrative System for the university.

Prior to Martha's employment at the University and relocation from Illinois to Missouri, she owned and operated M & M Mini Mart, Inc. for eleven years (1985-1996). After completing her Bachelor of Science degree in 1994, she held the position as teaching assistant for Southeast Missouri State University. During her final year as

entrepreneur, she also held a split position for the Regional Office of Education 02 in Illinois as Technology Assistant and Math Coordinator and Office Procedures instructor at Metropolis Adult Education. This position involved providing technical assistance and coordinating math workshops to the five county regional school served by this office.

In 1981-1985, Martha lived, worked, and continued her education in Dallas, Texas. Positions held in Dallas include four years as Office Manager at a furniture showroom located in the World Trade Center—Dallas and one year as Manager of a showroom in the Decorating District, returning to Illinois in 1985 to open a business.

A variety of teaching positions and roles regarding education have been held by Martha over a 13 year spread. In her current position as Director of User Services, she is responsible for developing technology training programs and providing training on the administrative system, a variety of software, and other technology for faculty and staff. In addition, Martha develops and provides student training seminars. Teaching experiences include: (a) Information Technology Department, Southeast Missouri State University, serving students, faculty, and staff, 1996 – present; (b) Administrative Services Management Department, Southeast Missouri State University, serving Southeast students, 1994 – 1995 and 2006; (c) Continuing Education Department, Southeast Missouri State University, serving Southeast Missouri communities, 2000 – 2002 and 2006; (d) Regional Office of Education 02, Ullin, IL, serving teachers and educational staff, 1995 – 1996; and (e) Metropolis Adult Education, Metropolis, IL, serving adult community, 1995 – 1996.

In order to teach and support the Southeast Missouri State students, faculty, and staff, several service publications were developed by Martha for use in trainings as well as to provide reference and support following trainings. These include:

1. Banner 7: Navigation and Overview, 2006 – present. Instructional and informational guide for Southeast Missouri State University faculty and staff on navigating the new version 7 administrative system.
2. What’s New? INB 7 Navigation, 2006. Instructional and informational guide outlining the differences of Banner version 6 and Banner version 7 for Southeast Missouri State University faculty and staff on navigating the new version of the administrative system.
3. Banner Administrative System Navigation and Overview, 2004 – 2006. Instructional and informational guide for Southeast Missouri State University faculty and staff on navigating the new administrative system.
4. Data Standards Manual, 2002 – present. Manual developed to provide direction and guidelines on how data is to be entered into the new administrative system.
5. Student Technology Handbook, 2003 - present. Informational guide for Southeast Missouri State University students and parents on technology offered by the university.
6. Information Technology Web pages, 2001 - present. Located at <http://www6.semo.edu/infotech>. Informational guide to service and technology offered by Information Technology Department.

7. Open Computer Labs Web pages, 1998 - present. Located at <http://www6.semo.edu/openlab>. Informational guide to services, schedules, and technology offered by the Computer Services Department.
8. Eudora Level 1 and 2, published by Administrative Services Department for student use, 1998 - present.
9. Email Etiquette, 2006. Instructional guide developed for the Email Etiquette training offered by the Continuing Education Department.
10. Internet Access, 2000 – 2005. Instructional manual on connecting to the Southeast dial-up server.
11. Computer Lab Assistant Training Manual, 1996 - 2005. A reference guide for computer lab policies, procedures, application instructions, equipment troubleshooting, record keeping, schedules, etc.
12. Introduction to Microsoft *FrontPage*, 2000 - present. Instructional manual for Web page development and the use of *FrontPage* software.
13. Intermediate Microsoft *FrontPage*, 2000 - present. Instructional manual for the use of *MS FrontPage* software for more advanced users.
14. Advanced Microsoft *FrontPage*, 2000 – present. Advanced features instructional manual for Web page development and the use of *FrontPage* software.
15. Introduction to Microsoft Publisher, 1999 - present. Instructional manual on the use of a publication software.
16. Intermediate Microsoft Publisher, 2000 - present. Instructional manual on the use of a publication software for more advanced users.

17. Using Southeast E-mail, 2001 - present. Instructional manual for users of Southeast e-mail.
18. Scanners and Digital Cameras, 1998 - present. Instructional manual for scanner and digital camera users.
19. Using the Internet, 1996 - present. Instructional manual for Internet users.
20. Burnin' CDs, 2003 – present. Informational guide to using CD re-writeable drives and media.
21. Doctoring Your Graphics, 2003 – present. Instructional guide on modifying graphic files.
22. Outlook Calendaring, 2003 – present. Instructional guide on using *MS Outlook Calendaring*.
23. Writing for the Web, 2003 – present. Informational guide on web page writing techniques.
24. Rewrote Professional Staff Council Manual, 2003. In order to more accurately display and explain Professional Staff Council role and responsibilities, a new manual with additional guidelines and bylaws was developed.

Additional web publications to provide information and support that were developed by Martha can be found on the Information Technology web site at <http://www6.semo.edu/infotech>.

Further evidence of professionalism is marked by the involvement shown below:

1. Chairman, Banner Management Committee, 2002 - present
2. Chairman, I.T. Connection Committee, 2001 – present
3. Chairman, Professional Staff Council, 2001 – 2003

4. Vice Chairman, Professional Staff Council, 2000 – 2001
5. Member, Administrative Council, 2001 – 2003
6. Member, Budget Committee, 2001 – 2003
7. Member, Athletic Committee, 2002 – 2005
8. Member, Benefit Review Committee, 2002 – 2003
9. Member, Academic Affairs, 2002 – 2003
10. Member, Account Receivable/Other, 2002 – 2003
11. Member, Professional Staff Council, 2000 – 2005
12. Member, Opening Week Committee, 2000 – Present
13. Member, Towers Renovations Committee, 1999 - 2000
14. Provide orientation program to new students, faculty, and staff.
15. Attended SIGUCCS conference, 2000, 2002, 2006
16. Attended Banner Administrative Software Summit conference, 2006, 2007