

**THE DEVELOPMENT AND VALIDATION OF A PRE-EVALUATION INSTRUMENT
FOR THE VIRTUAL COLLEGE OF TEXAS TO MEASURE QUALITY IN DISTANCE
EDUCATION COURSES**

A Dissertation

by

EDNA QUINTANA CLAUS

Submitted to the Office of Graduate Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

May 2009

Major Subject: Educational Human Resource Development

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May 2009

Major Subject: Educational Human Resource Development

ABSTRACT

The Development and Validation of a Pre-Evaluation Instrument for the Virtual College of

Texas to Measure Quality in Distance Education Courses. (May 2009)

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The purpose of this study was to 1) provide a detailed examination of the criteria for pre-evaluation utilized to measure quality in a distance education course for the Virtual College of Texas (VCT) and consortium members, 2) examine the process of each VCT consortium member in order to determine the criterion for the quality of distance education courses being provided by a host or provider college, and 3) develop and validate a pre-evaluation instrument to pre-determine quality in distance education courses for the Virtual College of Texas and consortium members.

This was a qualitative research study that utilized document analysis, semi-structured interviews questions and incorporated a modified use of the research and development cycle. The data was gathered from the member colleges that are part of the Virtual College of Texas Consortium. The entire 43 member college's websites were searched for documents containing the criteria that they used to evaluate the quality of on-line courses. These documents were also used to formulate the questions used in the semi-structured telephone interview questions.

During the course of this study it became evident that an educational research and development strategy would be utilized due to the development of a pre-evaluation instrument to pre-determine quality in distance education courses for the Virtual College of Texas. There are

10 major steps in the educational research and design (R&D) process however in this study it was modified since not all of the major steps were applicable.

It is clear that determining quality criteria is not easily accomplished due to the differences in and of the decision makers, however the participants in this agreed on the final development of a pre-evaluation instrument to pre-determine quality in a distance education course. The use of a pre-evaluation instrument to pre-determine quality in a distance education course may aid distance education in promotion of its foundational purpose of connecting the instructor with the student for learning and in promoting the value of connecting human beings in a meaningful way through the use of distance education for human resource development (Swanson & Holton, 2001).

DEDICATION

To my parents, Berta T. and Dario R. Quintana,
To my husband, Edgar L. Claus Jr.,
And to my children,
Jordan C. Claus, Tirzah L. Claus, and Lia T. Claus

ACKNOWLEDGEMENTS

I would like to thank my committee chair, Dr. Larry M. Dooley, and my committee members Dr. Kim Dooley, Dr. James Linder, and Dr. Toby Egan, for their guidance, time, and dedication throughout the course of this research. Although she is not one of my committee members, I take time to offer my thanks to Dr. Sue Lynham for her mentoring and support throughout this endeavor towards academic excellence. I also thank the Virtual College of Texas for their assistance and the Virtual College of Texas Consortium for their willingness and cooperation during course of this study.

I acknowledge my immediate family for their unconditional love and support that never wavered. As educators themselves, my parents have shared my endeavor towards this terminal degree and have gone beyond the call of duty by attending conferences where I have presented as my own personal cheering section. I remember the day when I informed my mom that I wanted to pursue a terminal degree; there were no questions, no remarks of the time or money it was going to take, just a reply of “Good”.

My husband’s patience and assistance throughout my educational pursuit has been phenomenal. His patience and understanding are to be revered. During my rambling, ranting, or raving, he never did anything but listen, and that in itself was priceless. He never uttered a word towards quitting; despite my frustration he knew I would never allow myself the option to quit—regardless of how I felt. He never questioned the times I needed to be away from home even when that meant added household or family duties; he realized that this was a dream that I just had to pursue and accomplish.

My children’s understanding during my absence from home continues to be a humbling experience. For each time I came home, whether I was gone for a week or a day, I was

welcomed with open arms and hearts. They have never had a negative word concerning this educational journey that they were very much a part of.

My gratitude also extends to my pastor, Rev. Joe P. Hinojosa and his wife, Irene Hinojosa, for their spiritual guidance and constant prayers. Though we met over twenty-four years ago, they, just as my parents, realized my potential even before I did.

I am also appreciative of my friend and colleague Michelle Alvarado. These past seven years would never have been accomplished without her. Having a person to talk to that understood the entire process of obtaining a terminal degree was like having my own personal sanctuary. She has been a study partner, an editor, and more importantly, a sister. It was her motivation and constant reminder of our responsibility to be examples for future Hispanic doctoral candidates that kept me focused and driven to succeed. During our brain storming sessions she would always be positive and state “Yes, we got to do it, but first we got to finish our dissertations”! Just like my committee members and my editor, she knows my study inside and out; that is how close we are.

Additionally I take this time to recognize my friends and colleagues both at Texas A&M University and Texas State Technical College for making this a memorable experience. Special thanks go to the faculty and staff members of the Computer Systems Management and the Computer Science and Software Development departments at Texas State Technical College-Harlingen Campus. Your faith in me provided the added motivation to persevere.

As an educator I strive and will continue to strive to live up to the most humbling words I have ever heard describing what education is and should always be. The words are taken from my daughter’s eighth grade valedictorian speech that she read on June 2, 2007. Tirzah describes educators as those that have “devoted their lives to the honorable service of passing knowledge

from their generation to those of the future, driven to keep education alive, serving as a light amidst the darkness of today's troubled society. They've taught me that intelligence is not solely measured by the knowledge we've obtained, but also how we use and apply it in our lives. Education is not simply learning information, but learning from it as well if we allow ourselves that privilege." Her words are forever seared in my mind, soul, and spirit.

I am convinced that it was God's plan to have everyone mentioned above have a role in my journey towards this terminal degree, for without their assistance I would not have had the opportunity to realize my dream. Their influence has molded me into a better daughter, wife, mother, friend, colleague, student, scholar and teacher; and for this I am eternally grateful.

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CHAPTER I

INTRODUCTION

Henderson and Provo discuss many of the challenges and implications facing human resource development practitioners and scholars. The infusion of technology in the workplace, along with young unprepared employees working alongside an aging workforce, and globalization collectively add up to one major challenge —continuous change (Henderson & Provo, 2006).

The changes impacting the success of organizations in the United States will depend on the future workforce. However this workforce faces a number of challenges, among them the most important are: 1) the requirement for “post-secondary training and a college degree” (Potter, 2002, p. 740), 2) the requirement for “knowledge and skills to be kept current” (Rothwell & Kolb, 1999, p. 49), and 3) “a greater emphasis on retraining and lifelong learning” in order to “stay competitive in the global marketplace” (Karoly & Panis, 2004, p. 14).

Technological advances in the last decade have allowed for education, training and lifelong learning outside of the traditional classroom setting. Additionally, the dramatic increase in the use of the Internet transformed learning by correspondence to distance education and further transformed workforce training (Thompson, 2000). This transformation has provided a means by which learners can access course materials in the form of printed text, audio or video formats via the Internet (Taylor, 2001).

This dissertation follows the style and format of *Human Resource Development Quarterly*.

Although it began using pencil and paper, distance education has embraced the technological innovations of the twentieth century, the most significant of which is the use of the Internet. According to Van Hook, (2006)

access to online learning options has increased multifold in developed nations and metropolitan areas that can afford Internet infrastructure costs, topped by Japan with 89 percent of the population on-line, followed by Canada at 72 percent and the United States at 71 percent. (p. 2)

Distance education has grown in the United States (US) and continues to expand (Saba, 2005). Its foundational purpose in the US has been to extend learning to students residing in rural areas. Since then, the value of distance education can be seen in the transformation of education and training to “when needed, any time, any place, anywhere” (Keegan, 2005, p. 5) and for anyone, or any organization connected to the Internet.

A recent study conducted by the Sloan Consortium in 2008 indicates “over 3.9 million students were taking at least one on-line course during the fall 2007; a 12 percent increase over the number reported the previous year” (Allen & Seaman, 2008, p. 1) in the United States. The Sloan report also stated that “the 12.0 percent growth rate for on-line enrollments far exceeds the 1.2 percent growth of the overall higher education student population” (Allen & Seaman, 2008, p.1).

While the growth of distance education is impressive, most individuals do not understand what distance education is or how it works (Saba, 2005). Of even more concern is the issue of quality in distance education courses or complete distance education programs of study.

Statement of the Problem

There is no standard definition for quality or rubrics that measure quality in a distance education course, yet the concern for quality has “become an emotional and political issue, with opponents arguing that the new use of technology is, by definition, of poor quality” (Meyer, 2002, p. 7). Distance education is viewed as subpar because it is different than the traditional face-to-face classroom and it has become a threat to traditional academic teaching practices (Meyer, 2002). This regard for quality in distance education courses is what continues to be an issue of debate for distance education despite the technological advances and its increased use (Meyer 2002; Seok, Meyen, Aust, Fitzpatrick & Newberry, 2006). While traditional classroom formative and summative evaluations have been modified for distance education courses, and comparison studies have indicated no significant difference between distance education and face-to-face courses, they are not substantial enough to lessen the debate on determining or predetermining quality in a distance education course internationally, nationally or within the state of Texas (Ciavaerlli, 2003; Meyer, 2002; Saba, 2005; Sims, Dobbs & Hand, 2002).

Since 2001, Texas colleges and universities adopted and have utilized the *Principles of Good Practice for Electronically Offered Degree and Certificate Programs*, which is a set of measures to control for quality in distance education and mandates that these best practices be met before approved distance education courses or programs can be offered (Jonsen & Johnstone, 1991; Southern Regional Education Board, 2002). Despite this, there is no agreed upon definition or criteria for the determination of quality in these courses or programs of study. The regulations and best practices are required

prior to distance education course offerings; however, they are not pre-determinants for quality. The growth and use of distance education is on a continuous upward climb, and the debate for quality in distance education persists.

The growth, improvement and use of the Internet will facilitate the use of distance education in higher education. In the past decade colleges and universities in the USA have begun to replace traditional face-to-face classrooms with distance education courses and course management systems (Simonson, 2004). Despite its phenomenal growth, distance education and the quality of distance education courses and programs of study have been under constant debate.

The Virtual College of Texas (VCT) is one of those entities that has seen a growth in the number of distance education course enrollments. The purpose of The Virtual College of Texas (VCT) is the collaboration of two year colleges to share distance education learning courses within its college members for the State of Texas. It has been in existence since 1998 and was created by the Texas Association of Community Colleges. Since the spring of 2006 it has provided an estimated 34,800 enrollments in courses via this shared host-provider model of its member colleges (*Virtual College of Texas Operations Manual*, 2006).

During the 2005 summer the consortia members received a notice by the Southern Association of Schools and Colleges (SACS) that they were to provide a detailed review on how they were complying with the principle 3.4.7 of the SACS *Principles of Accreditation* manual on “the quality of educational programs/courses offered through consortia relationships of contractual agreement” (*Principles of Accreditation*, 2001, p. 23). The area of concern for VCT was the word quality for there were no methods of

evaluation aside from the end of course surveys provided by enrolled students. Further concern was the SACS principle 3.4.12 stating that the “responsibility of ensuring the content, quality and effectiveness of its curriculum was with its faculty” (*Principles of Accreditation*, 2001, p. 23). The need for consortia members to develop the evidence for the evaluation of quality in the distance education courses they hosted or provided.

Purpose of Study

The purpose of this study was to

- 1) provide a detailed examination of the criteria for pre-evaluation utilized to measure quality in a distance education course for the Virtual College of Texas (VCT) and consortium members,
- 2) examine the process of each VCT consortium member in order to determine the quality of distance education courses being provided by a host or provider college, and
- 3) develop and validate a pre-evaluation instrument to determine quality in distance education for the Virtual College of Texas and consortium members.

Research Questions

1. How were criteria selected to pre-determine the quality of a distance education course by each participating member of the VCT consortium?
2. What were the experiences of each VCT consortium member in determining the criteria used in determining quality in a distance education course?

Theoretical Framework

The theoretical framework guiding this study is comprised of 1) equivalency theory (Simonson, 1999), 2) expectancy theory (Vroom, 1964) and 3) Deming’s system

of profound knowledge (Braughton, 1999).

Equivalency Theory

According to Simonson (1999) the essence of this theory states that learners, both distant and local, do have different learning environments. The design of the instruction should provide learning experiences that are of the same value, although the experiences may differ slightly. This theory provides the base of “core values such as local control and personalized instruction that are held almost sacred in classical American Education” (Simonson, 1999, p. 209). Thus, the equivalency theory provides the understanding that while the environment is different; the learning experiences should be of equal value, hence, equal in the quality of instruction through distance education.

Key components of this theory include the “concepts of equivalency, learning experiences, appropriate application, students and outcomes” (Simonson, Schollosser & Hanson, 1999, p. 7) and are based on the foundational values of American education. If distance education is designed to provide equivalent learning experiences, then the criteria selected by each consortium member for quality should be adequate.

Expectancy Theory

The basis of expectancy theory is human motivation and according to Victor Vroom’s expectancy theory, this human motivation is what drives a person to achieve his/her goal. It is also believed that the person’s actions and performance will lead to a positive achievement of that goal (Vroom, 1964, Kirtley, 2002). The nature of distance education relies on the student’s ability to manage, cope and achieve his/her goal, and it is the students’ motivational characteristics that have an effect on their satisfaction with

on-line courses (Kirtely, 2002). According to Kirtley (2002),

a student's motivation is considered to be a determining factor in academic performance and this study is consistent with the literature that revealed a strong correlation between motivation to enroll and student satisfaction and in the areas of convenience or flexibility of the course, desire for independent structured courses, no travel to campus, and the ability to meet family and employment obligations. (p. 103)

If students expect distance education to aid in achieving their goals and aspirations, then institutions should begin to focus on and provide quality instruction. Hence, the focus of each consortium member for a pre-evaluation instrument to determine quality should meet students' expectations.

Deming's System of Profound Knowledge

At the center of Deming's system of profound knowledge is the idea that a leader must understand the importance of the appreciation for a system, as well as the theories of variation, knowledge and psychology in order to pursue continuous improvement, change and/or transformation. "Without purpose there is no system, for to function properly an organization must have a clear, constant, well-integrated purpose" (Scholtes, 1999, p. 705). VCT is a system of interrelated parts with a common purpose and if one part of the system is changed then it affects the other parts as well (Quality Management Division, 2001). VCT consortium members understand that while they are individual colleges, each college impacts the VCT system holistically; therefore, each pre-evaluation instrument that is created and implemented should enhance and support the mission of VCT.

At the heart of the theory of variation, as used by Deming, are the variations caused by either individual or special reasons randomly occurring within the system itself. According to Okes and Wescott (2001), “Variation is inherent; it exists in all things—two entities might appear to have the same measurement because of the limitations of the measuring device” (p. 159). Yet variation is to be identified and then reduced in order to obtain a level of quality. Analyzing each of the pre-evaluation instruments developed, along with the rationale for the criteria used by each VCT consortium member, could provide the starting point for converging them into one pre-evaluation instrument, thus decreasing variation.

Deming points out that understanding human behavior is essential for an organization; it consists primarily of human beings and its processes (Swanson & Holton, 2001). Understanding processes and experiences of the people involved in the development of a pre-evaluation instrument is key to understanding the criteria selected for determining quality for a distance education course.

The final theory in Deming’s System of Profound Knowledge is the theory of knowledge. The essence of this theory is the knowledge of an organization, how it works, how it learns and how it improves on learning for the good of the organization and its customers. VCT can gain from understanding how each member of its consortium uses their organizational knowledge and processes in the development of a pre-evaluation instrument to determine quality in a distance education course. VCT can begin to determine what possible impacts the organization, as a whole, will experience.

Operational Definitions

The operational definitions used in this study are as follows:

Distance Education: “Distance education is now often defined as: institution based, formal education where the learning group is separated and where interactive telecommunications systems are used to connect learners, resources, and instructors” (Simonson, Smaldino, Albright & Zvacek, 2003, p. 7-8).

Distance Education Consortia: “Consortia normally consist of two or more distance learning institutions or units who share in either the design or delivery of programs or both” (Moore & Kearsley, 1996, p. 150).

E-Learning: “E-Learning refers to the use of Internet technologies to deliver a broad array of solutions that enhance knowledge and performance” (Rosenberg, 2001, p. 28).

Internet: “The Internet is not a single, clearly defined entity, but a meganetwork of interconnected networks that share a common language” (Simonson, Smaldino, Albright & Zvacek, 2003, p. 236).

Virtual Colleges: According to the national study conducted in 2004 by Epper and Garan,

the term "virtual college or university" is used to describe a broad range of entities and activities: corporate training centers, distance learning efforts of individual institutions, non-profit and governmental education activities, and multi-state and international learning collaboratives. Aside from institutional programs, most of these initiatives are not true "universities" in the degree-granting sense of the word. Virtual College/University (VCU) is used to encompass those initiatives that comprise membership of the public higher education institutions (two year and/or four year) within a single system or state. (p. 6)

Virtual College of Texas (VCT): The Proposal from the Texas Association of Community Colleges (1996), defines the Virtual College of Texas as being comprised of already established community colleges, which are accredited by the Southern Association of Colleges and Schools (SACS). Its mission is to provide equal access throughout Texas to remedial, foundational, academic and technical education, both credit and non credit, to students wherever they are—on campus, at work or at home. (p. 1)

Virtual College of Texas Consortium Member: Virtual College of Texas Consortium member colleges are two year public community colleges and technical colleges that agree to participate in the Virtual College of Texas (*Virtual College of Texas Operations Manual*, 2006).

Assumptions

The following assumption underlying this study is:

1. The respondents truthfully answered the interview questions and the documents reviewed were representative of the institution's plan for evaluating quality in a distance education course.

Limitations

This study is limited to the consortium of the Virtual College of Texas comprised of community colleges in the state of Texas, and, therefore, may not lend itself to transferability in other organizational entities.

Significance of the Study and Applicability to Human Resource Development

With the increased use and improvement of technology, distance education will

continue to be utilized in higher education. In the past decade, universities and community colleges in the United States have begun to replace traditional classroom training with distance education course management systems. A study conducted by the Sloan Consortium, a collection of institutions and organizations (academic, private, public, and non-profit) committed to quality, reported that “an overall growth rate for enrollments in on-line courses is expected to be 20%; for-profit institutions expect a growth rate that is faster than that of other institutions” (Simonson, 2004, p. viii). Yet, regardless of the increase in the use of distance education in colleges and universities, the lack of a universal definition and criteria to measure quality continues to be an area of concern and debate. Despite federal and state guidelines for best practices, the debate and concern for quality by higher education institutions continues. Therefore, the concept of developing a pre-evaluation instrument for pre-determining quality in a distance education course is essential to provide higher education a foundational model and possibly transfer its use to corporate America.

This study of the Virtual College of Texas provides an example of an organization that needs to understand the essence of quality distance education courses as a collective whole and as individual college members. For while they are part of a whole, the actions of one of its members also impact the other member colleges that are part of the VCT consortium.

Texas colleges and universities would be the first to benefit from the development and validation of a pre-evaluation instrument for VCT to ensure quality in distance education. An additional benefit is the convergence of one pre-evaluation instrument to control consistency of the quality standards.

The significance of this study can also begin to forge the ground for an acceptance of standard criteria for quality for the development of future distance education courses for the state of Texas. It would also provide a method for students to determine the quality of the distance education course before they enroll in it, thus ensuring college transfer and credit.

This study will also benefit the practice and research in the area of Human Resource Development. Distance education is also used for training the workforce, and according to The State of E-Learning in the States report (2007),

More broadly, it is technology enabled learning that is designed to increase workers' knowledge and skills so they can be more productive, find and keep high-quality jobs, advance in their careers, and have a positive impact on the success of their employers, their families and their communities (p.7).

Therefore the need to evaluate and pre-evaluate distance education courses for the purpose of employing training is vital to organizations as well. According to Macpherson, Elliot, Harris, & Homan (2004) "Without a systematic and comprehensive evaluation, it is hard to see how distance education as an Human Resource Development (HRD) strategy can be developed to ensure the delivery of quality human resources so important to organizational strategy" (p. 307). The findings of this study could provide HRD a systematic, comprehensive and valid pre-evaluation instrument for distance education and, therefore, a possible new HRD strategy to determine quality in distance education courses for organizational development. HRD could blaze the trail for the advancement and acceptance of accredited on-line degrees. Moreover, it could promote the value of

connecting with human beings in a meaningful way through the use of quality distance education for educational human resource development (Swanson & Holton, 2001).

Organization of Study

Chapter I begins with an introduction to the infusion of technology U.S. organizations are facing along with the challenges the future workforce will need to meet in order to assist these organizations to succeed. The statement of the problem, definitions, assumptions, limitations and the significance of this study are defined to aid in developing the rationale for pursuing this study. Chapter II contains the literature review that provides the basis for the study. The review includes the history of distance education, the evaluation of distance education, theories of distance education, and trends in distance education. Chapter III details a description and rationale of the methodology used in this study. This was a qualitative research study that utilized document analysis, semi-structured interviews questions and incorporated a modified use of the research and development cycle. Chapter IV provides the analysis of the data gathered for the development of a pre-evaluation instrument to pre-determine quality in distance education courses for the Virtual College of Texas. Chapter V focuses on the research conclusions based on the data analysis, implications for practice and research, recommendations and suggestions for future study.

CHAPTER II

REVIEW OF THE LITERATURE

This chapter provides 1) a definition of distance education, its history, and a discussion of the impact of the digital explosion on distance education, 2) a discussion of key studies in distance education, 3) an explanation of the methods of evaluation for determining quality in distance education, 4) a discussion of the issues and debates concerning quality in distance education and 5) the history of the Virtual College of Texas.

What Is Distance Education?

The term distance education is commonly used to define an educational setting in which 1) the student and the instructor are separated geographically, 2) the instruction is synchronous (at the same time) or asynchronous (at different times) and/or 3) the instructional method or media used to deliver instruction differs from that of the traditional face-to-face classroom (Simonson et al., 2003). In this research, distance education refers to formal instruction provided by an institution where the instructor and the learner are separated geographically but connected by complex “interactive telecommunications systems” (Simonson et al, 2003, p. 7-8) or by simple mail systems to accomplish the goal of education. Technological changes and innovation have provided distance education (DE) the ability to deliver courses and/or entire programs of study using different types of media. Regardless of the media used, the geographical distance or the difference in time, however, the essence of distance education has been to connect the learner and the educator.

History of Distance Education

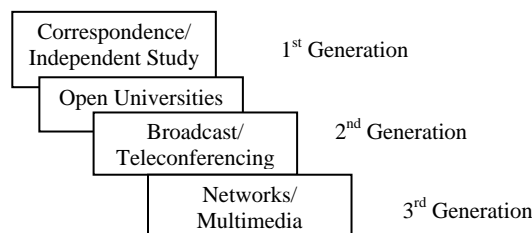
The foundational purpose for distance education was to allow remote students to study at home. The beginnings of distance education can be linked to Toussaint and Langenscheidt who were teachers in Berlin, Germany. This new idea of teaching at a distance, known then as correspondence study, was started in 1873 by Anna Eliot Ticknor who was inspired to encourage studying at home (Schlosser & Anderson, 1994). The main purpose of the Ticknor home study school was to encourage students, who were predominately female, to study by providing the materials, support and ability to correspond on a monthly basis (Simonson et al, 2003). “Ticknor enrolled over 7,000 students from all over the United States” (Moore & Kearsley, 1996, p. 22). This type of study attracted more than 10,000 students over a period of twenty-four years (Simonson et al, 2003).

“From 1883 to 1891, academic degrees were authorized by the state of New York through the Chautauqua College of Liberal Arts to students who completed the required summer institutes and correspondence courses” (Simonson et al, 2003, p. 32). By 1930, correspondence study was being offered by 39 universities in the United States; however, “more for-profit organizations brought the method (of study) into disrepute by dubious sales practices” (Moore & Kearsley, 1996, p. 23). Due to these questionable practices, the National Home Study Council was created in 1926 to bring order to the area of correspondence study. In 1968, educators providing correspondence study changed the name of the method of their type of instruction to “independent study” in order to separate themselves from other educators providing correspondence study and, in 1994,

the name of National Home Study was changed again to the Distance Education and Training Council.

Innovations in the concept of distance education and technology allowed for different communication methods and broader educational experiences for students (Moore & Kearsley, 1996). The phases through which distance education has progressed have been grouped into three distinct generations: the first generation represented correspondence study/independent study, the second generation was represented by open universities and broadcast/teleconferencing and the third generation is characterized by the current state of networks and multimedia. Figure 1 provides a synopsis of the progress of distance education.

Figure 1 The evolution of distance education as generations of progress from correspondence to networks and multimedia (Moore & Kearsley, 1996, p. 20)



The second generation began in 1967 when the British government established the first Open University, “a nationwide university system with no resident students” (Moore & Kearsley, 1996, p. 26). The government provided sufficient funding to allow the open university system to implement the latest communication technologies for students who wanted this type of educational experience. It was so successful that the British government decided to turn this open university system into a permanent fully

functional degree granting institution, and it is still in operation today (Moore & Kearsley, 1996). The historical method of correspondence study and/or distance education utilized the postal system; however technological improvements allowed the uses of broadcasting media such as radio and television. While the radio and television system provided distance education with a new means of communicating with students, the use of radio was not well received by faculty members or administrators; however, the use of television flourished primarily because of the contributions of the Ford Foundation (Moore & Kearsley, 1996).

After 1950, the funds for educational television were plentiful and “in 1962 the federal Educational Television Facilities Act funded actual television station construction” (Moore & Kearsley, 1996, p. 28); by 1967, the United States government passed the Public Broadcasting Act providing the foundation for the Corporation for Public Broadcasting. The use of television in distance education allowed for revolutionary innovations, such as the use of the microwave by the Stanford Instructional Television Network (SITN), “which in 1969 began broadcasting 120 engineering courses that were broadcasted to 900 engineers at 16 companies” (Moore & Kearsley, 1996, p. 29).

During the second generation the use of teleconferencing also emerged. Teleconferencing includes audio conferencing, audio graphics, two-way video conferencing and computer conferencing. Audio conferencing is the most common form utilized because it uses public telephone lines at little cost. It started with the Educational Telephone Network at the University of Wisconsin with “18 locations and one weekly program and rapidly expanded to 200 locations and more than 100 programs every week”

(Moore & Kearsley, 1996, p. 30). Audio graphics use the computer or a facsimile (fax machine) to send visual data, graphics and supporting documentation while still using the audio conferencing for instructor and student communication. Two-way video conferencing uses satellite or cable to provide students and instructors with “the closest match to traditional face-to-face classroom instruction” (Moore & Kearsley, 1996, p. 93). Computer conferencing uses computer networks for students and instructors to send electronic messages and data files during instruction. Instruction can be either synchronous (at the same time) or asynchronous (different times). According to Moore and Kearsley (1996) the instructional characteristics of computer conferencing characteristics include the following:

- It combines the discipline of writing and flexibility of conversation. Being required to formulate ideas in such a way that they can be communicated in writing is important in most educational programs.
- It can be a powerful tool for group communication and for cooperative learning. For example, turn-taking tends to be more equally distributed in CMC (computer mediated conferencing) discussion, and inputs are often more thoroughly composed because of the text-based nature of the medium.
- It maintains a written record of discussions, and electronic lectures to provide instruction. (p. 93-94)

The third generation of distance education utilizes the “linking of personal computers via the telephone system” (Moore & Kearsley, 1996, p. 34) to provide and deliver instruction to students. The instructor prepares the instruction and then transmits

it to students utilizing the Internet. This generation of distance education allows for students to interact with their instructor as well as with other students enrolled in the same course by using bulletin boards, chat, and electronic messaging.

The Explosion of Distance Education

Over the past ten years, the innovations in computer technology, such as computer networking and the Internet, have increased the delivery of instruction in distance education courses. One of the main reasons attributed to the explosion of distance education has been the Internet.

The Internet began with the launching of the Soviet Sputnik satellite in 1957 and the race into outer space (Charp, 1999). During this time, the United States created the Advanced Research Projects Agency (ARPA), and one of their main projects was to develop “the civilian space program and screen new military technologies.” However, Ruina, the director of ARPA, “had bolder plans: he wanted to predict—and implement—the innovations of the future” (Smith, 2007, p. 62). One of the members of this newly founded organization, Licklider, assisted Ruina by envisioning and creating an “intergalactic community that could emerge from a single computer time-sharing system” (Internet History from ARPANET to Broadband, 2007, p. 35). While Licklider realized the potential of a computer system to become a “communication medium between people” (Congressional Digest, 2007, p. 35), he did not foresee that when the World Wide Web was introduced in 1993 with graphical orientation, it would be adopted by organizations, government and the common home owner in the United States (Congressional Digest, 2007). “During its most explosive growth period in 1996-1997, the Web was doubling in size about every 50 days, and a 1998 study by the NEC

Research Institute counted more than 320 million web pages” (Simonson et al., 2003, p. 251). According to Meyer, 2002

Data from UCLA’s Internet report (2001) found that 72.3 percent of Americans go on-line, they are most satisfied with the Internet’s ability to help them communicate with other people, almost half (48.9 percent) made purchases on-line, and Internet users tend to spend more time with friends and family, with the big loser being television. Not surprisingly then, students who arrive in postsecondary settings are more likely to have and be able to use a computer, send email, and browse the Web. A recent study (Hanson & Jubeck, 1999) is illustrative: of 280 college students responding to the survey, 71 percent had a computer, 73 percent had Internet access, 93 percent had sent e-mail, and 100 percent had browsed the Web. (p. 3)

This growth and use of the World Wide Web occurred during the third generation of distance education where personal computers were linked to wide area networks and the use of multimedia merged instruction with “pictures, audio, video, animations and virtual reality” (Simonson et al., 2003, p. 254). Although colleges and universities had been delivering on-line courses since the 1980s, the World Wide Web offered these institutions the ability to extend their instructional services to different states and eventually different countries (Simonson et al, 2003). Reports from the United States Department of Education indicate that during 2000-2001 “56 percent of all post secondary institutions offered distance education courses” (Wirt, Choy, Rooney,

Provasnik, Sen & Tobin, 2004, p. 85). Additionally, “56 percent of postsecondary institutions provide fully on-line courses” (Meyers, 2002, p. 4); other reports indicate that

- overall enrollment increased from 1.98 million in 2003 to 2.35 million in 2004.
- the online growth is over ten times that projected by the National Center for Educational Statistics for the general postsecondary student population (Allen & Seaman, 2005, p. 3).

Expansion of distance education will continue with 74 percent of public educational institutions indicating that on-line learning is a key element of their long-term strategies (Allen & Seaman, 2005).

Distance education was originally offered to “adults with occupational and social family commitments” (Schlosser & Anderson, 1994, p. 4). Although it has been almost one hundred years since the first course was offered, the same type of student characteristics apply today: learners still have occupational and social family commitments. According to Howell, Williams, and Lindsay (2003),

On-line students are becoming an entirely new subpopulation of higher-education learners. . . . The modern, traditional-age college students are unlike past generations. They are ‘interested in [qualifications from] small modules and short programs. . . and in learning that can be done at home and fitted around work, family, and social obligations’. (p. 3)

Cavanaugh (2002), indicates that distance education has increased and more so “among high school students, college students, and professionals” (p. 174). Additionally, a survey conducted by Grunwald Associates (2002) indicated that “32% of the majority of working adults expressed a preference for on-line courses over classroom learning” (p.

174). On-line learners have different personal characteristics and according to Tait (2002), there are on-line learners who prefer the on-line classroom. One of the reasons for students preferring the on-line course is due to feeling more confident and thus they tend to participate in classroom discussions (Tait, 2000). In a recent study conducted by the Sloan Consortium report that the majority of students, about 80%, who have taken a course on-line are undergraduate students, and 14% are graduate students (Allen & Seaman, 2008). As the report indicates these are students who have taken at least one on-line course, meaning that what is considered the traditional student is also part of distance education. Yet despite its noble effort to provide instruction to students who are unable or prefer not to attend face-to-face classrooms, distance education has had its share of controversy, and at the heart of this has been the attempt to justify or discredit distance education.

Research Studies in Distance Education

Comparison studies and case studies have reviewed students, faculty and educational institutions in order to determine which method is best for teaching students—a traditional face-to-face classroom or distance education (Meyer, 2002) and the results have concluded that the “researchers, interpreters of the research are influenced by their values and beliefs and often see only what they are looking for” (Meyer, 2002 p. 18). Additionally, the comparison studies reveal faculty members who fear technology and those that are excited about technological innovations in education.

The question then is why is distance education so controversial? The answer is quite simple. Technological innovations and advancements are the impetus for the concerns about possible educational paradigm shifts (Twigg, 2001). “Paradigms have a

powerful influence on individuals and on society because our view of the world is determined by our set of assumptions about it” (Twigg, 2001, p. 3). Technology allowed correspondence study to become distance education and now the academic world has changed. This change was innovative and threatened traditional classroom instruction. Twigg (2001) provides examples of the paradigm shifts.

- Faced with the invention of the telegraph, the Pony Express initially responded by buying faster horses. When that failed the organization tried to hire better riders. It did not realize that the world had changed and the Pony Express went out of business.
- The first ATM was located inside a bank and was available only during banking hours. Bankers viewed this technological innovation as an automated teller. Real innovation did not occur until ATMs were placed outside of banks, and in malls, grocery stores, and airports, available twenty-four hours a day. (p. 3)

As with any possible paradigm shift, controversy comes with the proponents advocating for distance education and opponents advocating against distance education; each committed to providing evidence for their claims (Conger, 2005; Passerini & Granger, 2000). According to Meyer, (2002) the earliest comparison study indicating no significant difference in student achievement in distance education was that of L.T. Russell in 1999. “Russell reviewed 355 studies on distance education produced from 1928 to 1998 that included comparison studies of instruction using videotape, interactive video, satellite, telecourses, television with on-campus, and in-person courses” (Meyer, 2002, p. 13). In his study Russell demonstrated that it was not the technology that enhanced learning; it was the instructional method used through the media.

Russell's study was based on "Richard Clark's theory that delivery medium has no effect on learning" (Conger, 2005, p. 1). According to Clark (1983), "media are mere vehicles that deliver instruction but do not influence student achievement any more than the truck that delivers our groceries causes changes in our nutrition" (p. 445). The implication of Clark's statement was that studies comparing achievements or advantages of the use of one media over another would bring confusion into the studies comparing the method of instruction. Clark (1983) compared this type of research to other issues in education where studies confused teacher with teaching. Additionally, Clark (1983) cautioned researchers that there was enough research on media comparison (five decades worth) that indicated no significant differences when utilizing different types of media in instruction. Clark clearly stated "it is what the teacher does—the teaching—that influences learning" (p. 456); yet, regardless of his caution, media comparison studies continued.

Numerous studies (Bourne, McMaster, Rieger, & Campbell, 1997; Davies & Mendenhall, 1998; Dominguez & Ridley, 1999; Gagne & Shepherd, 2001; Johnson, 2001; Miller, 2000; Mulligan & Geary, 1999; Ryan, 2000) have replicated Russell's work and conclude that there is no difference in the level of student achievement between traditional classroom settings and distance education settings. Researchers have attempted to move beyond the "no significant difference" and since then distance education studies have focused on the students enrolled in on-line courses, on faculty teaching on-line courses and on institutions offering on-line courses and/or programs of study.

The learning experience of the new student is a concern for distance education. Educators continued to question whether on-line courses maintained the same standards of excellence as traditional face-to-face courses (Ciavaerlli, 2003). Over all, Aragon, Johnson and Shaik (2002) report “an encouraging and exciting finding . . . learners can be as successful in the on-line environment as they can be in the face-to-face environment regardless of learning style preference” (p. 243); in addition, in an effort to ensure quality in an on-line course, efforts in the design and delivery are key elements for a “positive on-line learning experience” (p. 243). Meyer (2002) reports that

a study conducted by Dillon and Gabbard (1998) found substantial evidence that individual characteristics (e.g., ability, preference for active learning) do not contribute to learner’s success in hypermedia environments, which (given the wide variability of individuals) may explain why so many earlier studies produced conflicting results. (p.43)

Much of the work in distance education has centered on the role of the learner in an attempt to determine what factors impact the success (Meyer, 2002) of a distance education student. Studies focused on the qualities of a student have pointed out that “motivation, independence, and self-sufficiency as a learner, and the goal of earning a degree” (Meyer, 2002, p. 42) have increased the success of a distance education learner. In a study conducted for the National Education Association and the American Federation of Teachers, Phipps and Merisotis (1999) found that the student characteristics of persistence, maturity, independence, high literacy levels, and strong organizational abilities were “identified and correlated with success” (p. 17). In her 2001 study, Twigg also noted that not all students who enroll in an on-line course are seeking degrees. It is

also noted in Twigg's study that students will not pursue a degree if they do not believe that they can complete it.

Student learning styles have been studied and it was found that "whether a student prefers a more visual or verbal learning style may also affect his or her learning on-line" (Meyer, 2002, p. 49). According to Twigg, (2001), "the importance of learning styles may go beyond determining and understanding how or why some styles do better with a particular instructional activity or type of technology" and, therefore, institutions should not just duplicate existing traditional face-to-face courses for distance education but truly take advantage of distance education to provide more "options for students' variety of learning styles" (Twigg, 2001, p. 7). In a study conducted by Aragon, Johnson, and Shaik (2002) comparing on-line students and face-to-face classroom students, three different learning style instruments measuring motivation, task engagement and cognitive controls were used; the results indicate that, regardless of their learning style, students can be just as successful in a distance education course as in a face-to-face classroom.

Instruction, whether on-line or face-to-face, cannot take place without faculty. Research studies concerning faculty and distance education have focused on faculty abilities, development, motivation and rewards. While faculty members understand teaching in traditional face-to-face classrooms, the transition to teaching a distance education course is not easily accomplished.

According to Howell, Saba, Lindsay, and Williams (2004)

One the highest deterrents to faculty involvement in distance education were concerns about faculty workload, lack of monetary support, lack of

released time, and until the faculty had actually experienced teaching at a distance, concern about the quality of distance courses. (p. 36)

However, according to Meyers (2002), a study conducted by the National Educational Association reported that 72 percent of faculty's experiences with distance education were positive and only 14 percent have a negative experience. The characteristic of personal desire was found in faculty who are motivated by innovations in technology and in distance education (Howell, Saba, Lindsay & Williams, 2004). Additionally, faculty members wanted to expose students to technology, reach new markets and provide students with greater flexibility and opportunities (Howell, Saba, Lindsay & Williams, 2004). Clearly, distance education is not for all faculty members. However, those who found it to be a positive experience will continue with this new approach as the "attitudes toward distance education and technology improve as they participate in distance education courses" (Howell, Saba, Lindsay & Williams, 2004, p. 35). Professional development training for faculty that relates to the use of course management systems, instructional design and the importance of understanding how distance education operates have been found to have a positive effect on faculty perception of on-line teaching (Meyer, 2002). Faculty training related to the course management system includes the various tools, for example, the grade book, the discussion board, the chat feature, etc. Likewise, training that focuses on instructional design for distance education also has a positive impact on faculty satisfaction. Instructional design is a critical factor in distance education courses for it focuses on the "learner's needs" (Granger & Bowman, 2003, p. 177) which are "based on the principles grounded in learning theory and directed toward creating settings where learners with

varying abilities, experiences, and levels of motivation and self-directedness can achieve success” (Granger & Bowman, 2003 p. 177). However, training does not change the mind set of faculty members who believe that “classroom instruction is the single best and necessary means for student learning” (Meyer, 2002, p. 63).

Faculty motivation for involvement in distance education has been linked to intrinsic factors (Betts, 1998). These factors include the intellectual challenge of moving a traditional face-to-face class to an on-line class and/or individual desires of faculty members who participate in an activity because it appeals to their own personal values and thus serves as a reward in and of itself (Wolcott, 2003, p. 555). Therefore, the lack of rewards, such as promotion, merit pay or release time, did not hinder some faculty’s involvement in distance education.

While some faculty continue to embrace the traditional face-to-face classroom-based instruction, many strongly support the possibility of providing quality instruction through the use of new technological innovations such as distance education. Shale (2003) explains

Let’s be very clear that teaching in an on-line environment or any environment, for that matter, will not necessarily make a bad teacher and it will not necessarily render an unsatisfactory educational experience; on the other hand, excellent teaching can and does occur without being situated in an on-line environment (p. 398).

A survey conducted by the National Education Association indicated that “college faculty showed more participating faculty (72%) viewed distance education favorably than those

not participating (51%)” (Howell et al., 2004, p. 34). This survey also reported that distance education is not just for the younger faculty members; senior faculty are beginning to teach distance education courses as well.

Institutional studies concerning the adoption of distance education have been geared towards the institution’s understanding of “their commitment to on-line learning, given its demands on resources, and its ability to question long-held assumptions and change the status quo” (Meyer, 2002, p. 75). An institution must determine for itself whether it has the skills or knowledge needed for distance education. Even if the skills and knowledge are present, the institution must determine if it has the commitment of formal organizational structures for managing and sustaining change. According to Meyer (2002), an institution must undergo a

review of their systems, values, and policies as well as their members’ openness to change—and assess whether or not on-line distance education can succeed or whether action must be taken to eliminate barriers to prevent its failure or slow adoption. (p. 66)

Much research on distance education has focused on students, faculty and institutions in an effort to compare distance education with the traditional face-to-face instruction. Another area that has generated much debate is the issue of quality in a distance education course—does it compare to the quality of a face-to-face traditional classroom?

Quality in Distance Education

The advocates for quality have been noted as being W. Edwards Deming and Joseph M. Juran, before World War II (Oaks & Westcott, 2001). The essence of

Deming's argument was the inclusion of the customer's point of view and expectations for quality while Juran's thoughts on quality were in the application of concepts that included employees' input for continuous improvement (Patton, 2001; Oaks & Westcott, 2001). Another proponent of this movement was Philip B. Crosby (1979) who wrote *The Art of Making Quality Certain*. Crosby made bold statements concerning quality. "The problem of quality management is not what people don't know about it. The problem is what they think they know (about it)" (Crosby, 1979, p. 13). The Total Quality Management (TQM) began in business organizations, however, by the 1990's it had entered into the government and non-profit arena (Patton, 2001). Quality had made its mark in the corporate world and, therefore, the evaluation of quality had begun.

In academia, quality has two distinct areas of focus: quality assurance and program evaluation, each with its "distinct purposes, methods and applications to the point where there is a great deal of overlap" (Patton, 2001, p. 157) yet each with its unique functions contributing to quality program improvement.

Program evaluation traces its beginnings back to the 1900's and was mainly used for the measurement of goal and objective attainment (Patton, 2001). The essence of program evaluation has been that if a program works, to what extent does it do what it stated it would do. The method of evaluation has been summative utilizing quantitative data (Patton, 2001; Shadish, Cook & Leviton, 1995).

Quality Assurance (QA) began in the United States with the "official passage of the Community Mental Health Act Amendments of 1975" (Patton, 2001, p. 157). With the passing of these amendments mental health centers that were federally funded were

required to use QA in order to demonstrate that established health care standards were present and evident.

While program evaluation and quality assurance are two distinct methods of measurement and evaluation they have both become more focused on program evaluation and the data used to indicate that a program is improving. The providers of programs are being challenged to keep the intended users in mind during program development. This challenge has now been adopted in the area of distance education, but what does quality mean in a distance education classroom and how does one communicate that to the stakeholders of distance education? According to Snow (2001), “by its very nature, therefore, quality is difficult to ‘report’ and the only way to express this quality is through a concerted and careful effort of communication” (p. 41).

The review of the literature of the past ten years indicates that the issue of quality in distance education has been evaluated at the institution, at the course, at the program and at the student levels. Tables 1, 2, 3 provide the areas evaluated for quality, the dependent variables, the authors and the year the articles were published.

Table 1. Student and Instructor Areas Evaluated for Quality and Dependent Variable(s)

Area Evaluated for Quality	Dependent Variable(s)	Author & Year
Student	Student Learning and Learning Styles	Kember & Harper, 1987
	Student Support	Kember et al., 1990
	Student Learning	Schoening, 2002
	Student Experience	Howland & Moore, 2002
	Student Satisfaction	Allen, et al., 2002
	Student Attitudes	Bisciglia & Monk-Turner, 2002
Student and Instructor	Interaction	Thompson, 1990

Table 2. Accreditation Area Evaluated for Quality and Dependent Variable(s)

Area Evaluated for Quality	Dependent Variable(s)	Author & Year
Accreditation	Academic Courses Academic Resources Student Retention Technological Opportunities and Challenges	Zuniga &Peace ,1998 Eaton, 2002
	Institutional Support Teaching/Learning Student Support	Institute for Higher Learning, 2000
	Institutional Support Course Development Teaching/Learning Course Structure Student Support	Twigg, 2001
Accreditation	Federal Institutional Commitment Curriculum Instruction	SREB, 2002
	Institutional Context and Commitment Curriculum and Instruction Student Support Evaluation and Assessment	Benson, 2003

Table 3. Instruction, Program, Course, and Institutional Areas Evaluated for Quality and Dependent Variable(s)

Area Evaluated for Quality	Dependent Variable(s)	Author & Year
Instruction	Student Demand Student Retention Student Satisfaction Faculty Satisfaction Student Achievement Financial Efficiency	Wentling & Johnson, 1999
Program	Student/Employee Experience Student Centered	ASTD, 2001
	Pre-Evaluation of Program and Design	Sims, et al.,2002
	Program Design Resources Practices	Cavanaugh, 2002
	Roles and Competencies need by distance educational professionals	Williams, 2003
Course	Interaction	Roblyer & Wiencke, 2003 Meyer, 2002
	Student Satisfaction Student Learning Student Pre and Post Evaluation of Knowledge and Skills	Thurmond, Wamback, Conners, 2002
Institutional	Student Success Policies Standards and Procedures	CHEA, 2002 Ciaverelli, 2003

As Tables 1, 2 and 3 indicate quality has been evaluated at different levels based on specific areas of focus. The areas evaluated for quality depend on the level at which quality is being measured and addressed. There were different four major themes that were found for the meaning of quality in distance education and quality meant 1) complying with accreditation standards, (Benson, 2003), 2) utilizing tools for interaction, self-examination, and student evaluation, (Hansen, 2003), 3) providing appropriate and

effective instruction, (Cavanaugh, 2002) and 4) emphasizing the individual learner (Fenwick, 1992).

While areas have been identified as to where quality is being evaluated in distance education, a review of the literature also points to the concern of quality in distance education for educational institutions in maintaining a standard of quality in their courses regardless of how they are delivered. Educational institutions are concerned with “ensuring quality” in on-line courses at the same level of “high standards of excellence” as traditional face-to-face classroom instruction (Ciavarelli, 2003, p. 1). In order to accomplish this, a continuous quality evaluation process must be implemented (Ciavarelli, 2003). Thompson and Irele (2003), state that

Stufflebeam (1999), in his treatment of educational program evaluation, defines evaluation as ‘a study designed and conducted to assist some audience to measure an object’s merit and worth.’ In educational contexts, evaluation studies are implemented to examine and report on the strengths and weaknesses of programs, policies, personnel, processes, products/outcomes, and organizations to improve their effectiveness. (p.569)

But again the question is posed, what does quality mean in a distance education course or program of study? According to Pawlowksi (2003), quality in distance education does not have a distinct measure, yet assessing quality in distance education is now an area of focus. What models, if any, should be used when evaluating a course or program for quality in distance education? Can the traditional models of program

development and evaluation for face-to-face courses and programs of study provide a measurement to determine quality in distance education?

The development of any course begins with instructional design. Instructional design or ID is a method used for “developing educational and training programs in a consistent and reliable fashion” (Akbulut, 2007, p.1). Instructional design models have their origins first in the military and then in the training of commercial employees (Akbulut, 2007). Instructional design has been utilized to assist instructors and/or trainers in making instructional delivery more useful and applicable. The purposes of instructional design models according to Andrews and Goodson, (1980) are as follows:

1. Improving learning and instruction by means of the problem-solving and feedback characteristics of the systematic approach.
2. Improving management of instructional design and development by means of the monitoring and control functions of the systematic approach.
3. Improving evaluation processes by means of the designated components and sequence of events, including the feedback and revision events, inherent in models of systematic instructional design.
4. Testing or building learning or instructional theory by means of theory-based design within a model of systematic instructional design. (p.164)

The most common instructional design models reviewed in this study are the Dick-Carey model, the Morrison, Ross and Kemp model and the ADDIE model along with the discussion of their applicability to distance education.

The Dick-Carey (DC) model contains ten components of instructional design and provides a sequence of smaller instructional components. When using this model the

instructional material provides a stimulus in which the student response is evaluated for the level of mastery (Akbulut, 2007). The ten components of the DC model according to Dick and Carey, (1985) are as follows:

- Identifying an Instructional Goal
- Conducting an Instructional Analysis
- Identifying Entry Behaviors and Characteristics
- Writing Performance Objectives
- Developing Criterion-Referenced Tests
- Developing an Instructional Strategy
- Developing and Selecting Instruction
- Designing and Conducting the Formative Evaluation
- Revising Instruction
- Conducting the Summative Evaluation (p. 77-79)

The Dick and Carey instructional design model provides a method of determining a set of objectives that the student will follow thus the instructor and/or instructional designer maintains control of the course and the course content. Formative and summative evaluation of the learning accomplishments based on the instruction provided determines any instructional revisions (Passerini & Granger, 2000).

The Morrison, Ross, and Kemp (MRK) model consists of nine interrelated design steps. The MRK takes a student centered approach in the development of instruction and places a focus on the instructional design system and the management of it (Akbulut, 2007). The nine interrelated steps are as follows:

- Identifying instructional design problems and relevant goals

- Observing student learning characteristics
- Identifying subject content, analyzing objectives related to instructional goals
- Stating instructional objectives for learner understanding
- Content sequencing within each unit for logical learning
- Devising instructional strategies for learner mastery
- Designing instructional delivery
- Developing evaluation instruments
- Identifying supplemental resources to support learning activities (Akbulut, 2007; Morrison, Ross & Kemp, 2001).

Formative evaluation is conducted throughout the phases for instructional revision and this design model increases interaction with the students (Passerini & Granger, 2000).

The ADDIE model was developed for use by the U.S. Military and consists of a five step process: analysis, design, development, implementation and evaluation (Beckschi & Doty, 2000). This model has been used to train and educate military personnel and was first known as Interservice Procedures for Instructional Design Systems Development or IPISD (Feinstein, 2004). Since then it has been used by organizations to create training seminars, and now it is being used to develop on-line courses. According to Lee, Owens, and Benson (2002)

In ADDIE models of instructional design, analysis is conducted to determine the appropriate objectives for an instructional episode to address a performance problem. Instruction is then designed and

developed for learners to achieve those objectives. During and after implementation, the instruction is evaluated against the objectives to which it was designed. Thus, the ADDIE process begins and ends with objectives. (p. 406)

There is a push for instructional models and/or the revision of traditional instructional models just for distance education (Lee, Owens & Benson, 2002; Passerini & Granger, 2000; Anderson, 1999). The push has been for a model that is more suited to distance education, one that would “fully utilize the capabilities of the telecommunication technologies and the potential that they afford collaborative and independent learning” (Hirumi, 2002a, p. 157).

One of the models consists of five main phases similar to the ADDIE, however, instead of implementation and evaluation as the last two phases, evaluation and delivery are utilized (Passerini & Granger, 2000). The rationale for the last phase of delivery is due to the “actual delivery of the instruction, whether classroom-based, laboratory, or computer-based” (Passerini & Granger, 2000, p. 13). The assessment of the effective and efficient delivery of instruction via the Internet is performed. Moreover, the importance of this phase is to ensure that the student’s “understanding of material, support the student’s mastery of (instructional) objectives, and ensure the student’s transfer of knowledge from the instructional setting to their work environment” (Passerini & Granger, 2000, p. 13).

Another model for the instructional design of distance education courses is one that has been proposed by Hirumi (2002a, 2002b, 2002c), which is more student-centered, utilizes technologically rich environments and is based on

constructivist teaching and learning approaches. According to Hirumi (2002a, 2002c) this model, the SCenTRLE, is “designed to enhance student learning and performance by helping educators operationalize constructivist approaches by teaching and learning” (p. 499). This model uses eight events for student centered learning and they are as follows:

- Set challenge,
- Negotiate learning goals and objectives,
- Negotiate learning strategies,
- Construct knowledge,
- Negotiate performance criteria,
- Conduct self, peer, and expert assessments,
- Monitor performance and provide feedback,
- Communicate results (Hirumi, 2002, p. 510).

During the first seven events, there is the constant opportunity for feedback by monitoring performance. The rationale for this model is to meet the needs of the student who is enrolled in a distance education course and facilitates “knowledge construction and the development of metacognitive skills associated with life-long learning” (Hirumi, 2002a, p. 499). It is noted that the generalizability of the SCenTRLE model is limited and further research is encouraged.

As stated before the development of a course begins with its’ design. Instructional design continues to provide a systematic method for program development in education and has been used in the development of distance education courses as well. Instructional design also provides a system for course evaluation needed for course

revision and improvement. However, the question of quality in distance education remains and institutions of higher education are required to ensure quality in distance education courses.

Currently, guidelines for quality in distance education for educational institutions comes from the regional accreditation agencies mentioned earlier; however, the *Principles of Good Practice for Electronically Offered Academic Degree and Certificate Programs* only target the areas where quality is to be measured and do not provide specific standards for quality. Investigators of the issue of quality in distance education have a measure of the support systems for students during the course and for faculty during the design phase. The “review of current policies, adoption of best practices, accelerating work to include outcome measures in accountability mechanisms, establishing common definitions and state data reporting mechanisms” (Southern Regional Education Board, 2002, p. 1) has been recommended for the control of quality in distance education courses. The issues at the educational institution level are unclear guidelines as to how the recommendations will be implemented and what the standards are against which they will be measured (McLoughlin & Luca, 2006). Additionally, the recommendations for ensuring quality at the institutional level ranged from using the guidelines provided by regional and accrediting agencies to developing and implementing completely differing methods for evaluating on-line courses and programs. These methods were developed based on the face-to-face classroom instruction.

According to Lezberg (2003), the United States regulates the quality of postsecondary institutions of learning via six regional associations:

- Middle States Association of Colleges and Schools,

- The New England Association of Schools and Colleges,
- The North Central Association of Colleges and Schools,
- The Northwest Association of Schools and Colleges,
- The Southern Association of Schools and Colleges, and
- The Western Association of Schools and Colleges.

These regional associations are responsible for the creation of quality control rules and regulations along with the training of those responsible for their enforcement. The rules and regulations include “the standards for the qualifications of faculty, general expectations for curricular offerings, library and informational services along with noncurricular matters, such as student services” (Lezberg, 2003, p. 427). These policies and regulations also stand for what has traditionally been called the “Triad, the parties to quality, which includes the states, the federal government and the accrediting community” (Southern Regional Education Board, 2002, p. 4).

Institutions offering courses or programs of study through distance education follow the traditional face-to-face classroom evaluation techniques, yet these evaluation techniques do not always apply in the on-line delivery of instruction, specifically to the *Guidelines for Distance Education Principles of Good Practice*. Educational institutions of higher learning are assessing quality instruction based solely on state policies developed in 2000 by the Western Cooperative for Educational Telecommunications in a publication entitled *Principles of Good Practice for Electronically Offered Academic Degree and Certificate Programs*, a document which has been widely circulated and adopted by states and regional accrediting associations (Southern Regional Education Board, 2002). An example of this is the *Texas Higher Education Coordinating Board*

Guide for Incorporating the Principles of Good Practice into Electronically-Based Courses, which assesses quality in the areas of curriculum and instruction, institutional context and commitment, evaluation and faculty and institutional commitment.

Additionally Sherry (2003), states that

two of the five major categories of *Guidelines for Distance Education*, Curriculum and Instruction and Evaluation and Assessment, were retained, two others, Libraries and Learning Resources and Student Services, were subsumed into the new category of Faculty Support and Student Support. Specific items appearing in the Faculty Support section relating to course design, delivery and oversight, workload, and professional evaluation suggest that distance education faculty members may play somewhat different roles than their counterparts in traditional environments. (p. 439)

Traditionally, the most common forms of quality evaluations in education are formative and summative techniques conducted towards the end of the development and delivery process (Sims, Dobbs & Hand, 2002). These formative and summative evaluations have been utilized to measure student satisfaction with the instructor and the instruction, students' personal achievement and the delivery method of the on-line course. This data is gathered and then analyzed by faculty members in order to make revisions toward the improvement of the course. A study by Stewart, Waight, Norwood, and Ezell (2004) utilized "formative and summative evaluations to evaluate students' perceptions of on-line courses, specifically in the areas including interaction with course content and instructors, accessibility of resources on-line, assessment, and perceptions of course engagement" (p. 101). Their findings indicated positive student experiences and

engagement with the course, the instructor, and their access to resources. Students also indicated their satisfaction with the flexibility provided by an on-line course. Evaluating quality at the student level also includes: student learning and learning styles (Kember & Harper, 1987; Schoening, 2002; Thurmond, Wamback & Connors, 2002), student support (Kember, Lai, Murphy, Siaw, Wong & Yuen, 1990; Phipps & Merisotis, 2000; Twigg, 2001; Benson 2003), student/instructor interaction (Thompson, 1990; Roblyer & Wiencke, 2003; Allen, Bourhis, Burrell & Mabry, 2002), student satisfaction (Wentling & Johnson, 1999; Thurmond, Wamback & Connors 2002; Allen, Bourhis, Burrell, & Mabry 2002) and student attitudes (Bisciglia & Monk-Turner, 2002).

In a study conducted by Valenta, Therriault, Dieter, and Mertek, 2001, “Q-Methodology was used to identify opinions shared among students on issues they considered important about the application of technology to course instruction of the students at the University of Illinois at Chicago” (p. 111). Q-Methodology “combines the strengths of both qualitative and quantitative research traditions and provides a bridge between the two” (Brown, 1996, p. 561). It provides a method to expose the subjectivity of situations involving interpretation, perceptions, attitudes, etc. (Brown, 1996). The attitude studies researched by Brown (1996) were divided into two categories, one category looking at the positive aspects of on-line courses and the other looking at the negative aspects of on-line courses; these two categories include:

Positive Aspects

- Flexibility and Convenience (time-shifting and associated advantages of time management)
- Access/Interaction with Instructor

- Better Performance
- Collaborative Learning Environment
- Positive Learning Experience

Negative Aspects

- Limitations on Interactivity (text-based communications, asynchronous timelag vs. synchronous)
- Technical Problems
- Increased Workload
- Lack of Logistical Support
- Costs (Equipment, on-line phone charges, etc.). (p.113-114)

The results of these studies indicated that “students shared a belief in the importance of being able to work at home” and the importance of providing their (students’) review of the delivery of the on-line instruction (Brown, 1996, p. 120).

Traditionally, faculty providing instruction are evaluated for quality by the students, the institution and accreditation agencies; faculty providing instruction in an on-line course are evaluated in the same manner. One would think that the traditional method of evaluating instruction would suffice, however, according to Harrington and Reasons (2005)

there are many inherent challenges to evaluating distance education courses, some of which include:

- Distance education instructors frequently employ teaching strategies mediated by technology that serve to bridge the separation of student

- and instructor. Are instructors properly prepared to teach at a distance so that favorable student evaluation of teaching can be reached?
- Distance Education courses are often the product of a team of professionals, including designers, producers/directors, and technical specialists, working alongside faculty. The technology is integral to the teaching and learning processes; therefore, it is important to assess the technology's effectiveness alongside the faculty member's teaching effectiveness (p. 7)

Also noted by Harrington and Reasons (2005) the methods used by colleges and universities to evaluate on-line instruction differ yet “faculty and administrators realize that student evaluation of teaching is critical for the continued improvement and success of distance education courses” (p. 11). Regardless of its how it is measured, quality in distance education is still important, and as Twigg (2001) stated

the learning environment is a moving target that will require continued attention by all parties concerned about higher education . . . the new paradigms will need to be developed in order to ensure quality in on-line learning for our future students and society as a whole”. (p. 26)

Primary Concerns for Distance Education

Despite its foundational purpose and the technological advances which have provided many new opportunities for distance education, there are still major concerns that continue to plague distance education. At the forefront of these concerns that college and universities face is that of being compared to a diploma mill. The skepticism of faculty members opposing distance education has been grounded in their view of distance

education lacking quality because it is different from the traditional classroom (Twigg, 2001). “In traditional classroom settings, good instructors make up for flaws in the design of instructional materials by using their expertise to shed light on complex or confusing content matter, and their charisma to gain and sustain learner’s attention” (Hirumi, 2005, p. 309). Unfortunately the instructor that is teaching an on-line course most, if not all of the feedback to student questions or concerns occur asynchronously rather than instantaneously. Distance education instructors also have to deal with any design flaws that include technology such as hardware and software issues, leaving some students frustrated with having to deal with these types of issues as well as the course content (Hirumi, 2005). Even though the body of knowledge and literature has increased indicating that there is “no significant difference in learner achievement in distance and traditional settings, distance education degrees are still perceived as being inferior in quality” (Hirumi, 2005, p. 310). Skepticism has increased due to televised reports by the Central Broadcasting System, (CBS) and Sixty Minutes concerning the selling of higher education diplomas via the Internet (Mabrey, 2005). During their broadcast, CBS interviewed Laura Callahan, a former Homeland Security executive, who was deceived into thinking that she had enrolled in an accredited institution of higher education and found that she had been taking classes from a diploma mill (Mabrey, 2005). Even the brightest can be deceived, yet the question still remains as to how, in this day and age with all of the information at one’s finger tips, this occurs? Diploma Mills are nothing new. Noble (1998) indicated

In his classic 1959 study of diploma mills for the American Council of Education, Robert Reid described the typical diploma mill as having the

following characteristics: “no classrooms, faculties are often untrained or nonexistent, and the officers are unethical self-seekers whose qualifications are no better than their offerings. (p. 39)

Unfortunately, even with state and federal rules and regulations, distance education is still considered by many to be no better than a diploma mill. Simonson (2004) points to the fact that many of the diploma mills have the same characteristics of an accredited distance education institution, such as no classrooms and part-time faculty members. Additionally, they also use a common method of advertisement—the Internet. Simonson (2004) also cautions that the reason this debate continues is that “education is too important an endeavor to tolerate the illegitimate racketeers, especially ones that are profiting from the current technology-driven evolution of education” and, therefore, there should be better methods to distinguish “racketeers” from an accredited institution (p. ii).

The on-line degrees themselves are another area of concern that have had an impact on quality. With over “678 nonresident degree programs available on-line, only a handful of these are fully accredited or taught from recognized institutions” (Adams & DeFleur, 2005, p. 72). This growing trend is also posing an issue for students obtaining employment upon graduation.

Some researchers are making efforts towards distinguishing the real from the fake institution. In her article, Santovec (2006) states that the image of distance education is being hurt by diploma mills by “furthering the perception that all distance education is inherently inferior to all traditional classroom-based learning even though it is not supported by the research literature” (Santovec, 2006, p. 3). The damage that these diploma mills impose does not affect just distance education, but it also hurts those that

have fallen into the diploma mill's lair. During 2004, it was reported during hearings in the United States Senate that "political leaders, business professionals, teachers and educational administrators possessed 'degrees' from diploma mills" (Santovec, 2006, p. 3). Unless the information concerning diploma mills is posted and understood by all who wish to continue their education, more and more innocent people will continue to fall prey to these disreputable institutions.

Another issue related to students and distance education courses focuses on evaluating students for their level of satisfaction with on-line learning; the evaluation of student satisfaction deals with the use of active learning and student centered instruction, the level of interaction between students and the faculty, and with the level of interaction among students. While these areas of student evaluation are important for students, specific criteria for quality have not been pinpointed; debates over what assessments should focus on are still on-going (Meyer, 2002; Harrington & Reasons, 2005).

Karapetrovic, Rajamani and William (1999) discuss the evaluation of students and state that

Quality of knowledge and competence must be built into the students, not inspected at the end of a course or program. When a student reaches the final exam, nothing can be done to enhance his or her knowledge for the course is over; therefore, inspection and testing of a student's knowledge and competency are to be done before and after every lecture, laboratory and tutorial. (p. 92)

In another study by Young (2006), students indicated that "effective on-line teaching" incorporated the following seven elements: "adapting to student needs, providing

meaningful examples, motivating students to do their best, facilitating the course effectively, delivering a valuable course, communicating effectively, and showing concern for student learning” (p. 73). Sims, Dobbs, and Hand (2002) promote the idea of proactive evaluation for enhancing quality in on-line student learning. They state that traditional evaluation occurs at the end of the instructional development cycle in order to determine if the creative effort achieved the original product goals and whether or not the desired learning outcomes were realized. Placing evaluation at the forefront of the planning and design of an on-line course would ensure that all areas of learning are addressed and would provide for more meaningful and directed post evaluation.

According to Sims, Dobbs, and Hand (2002)

By focusing on the planning and design phase of the development cycle, proactive evaluation addresses the critical issues associated with the creation of learning resources and environments for delivery in an on-line context to ensure they will have a greater chance of achieving educational outcomes. (p. 147)

Educational institutions agree that “the highest cost component of instruction is faculty” (Twigg, 2001, p. 23). Historically, faculty has performed tasks in course development and/or revisions and course instruction that are accomplished by one person (Twigg, 2001). Faculty that provide on-line instruction have come to realize that their roles have changed to include the roles of “facilitator, manager, mediator, and motivator of student learning” (McLoughlin & Luca, 2006, p. 417). The instructor is still “responsible for teaching, organizing, grading, coaching, problem solving and even facilitating” the course and these duties are expanded to include the duties of “mentor,

counselor, and a liaison” (p. 34). Additionally, Belcheir and Chucek (2002) state that faculty teaching on-line courses noted that it took

significantly more time and effort than teaching traditional courses. Along with the long hours for course development, faculty also noted that the lack of recognition and financial compensation for extra effort and instructional challenges of the delivery method remain an issue. (p. 9)

Howell et al. (2004) states that

faculty are concerned they will not be adequately compensated for their extra work or intellectual property and that the quality of education will decline; the distance education movement threatens their very livelihood and professional freedom, increasing instructional accountability and oversight, taking traditional students away from the classroom, and promoting greater access to other content experts while squeezing some faculty members out of their profession (p. 37).

The concerns mentioned by faculty members are valid and educational administrators must begin to decrease the anxiety level faculty exhibit towards distance education. Distance education will continue to grow and, as stated by Berge and Muilenburg (2001), the challenge is “change; change in faculty roles, and change in administrative structures” (p. 37).

Further concerns are “the lack of funding and resources for technology training, the lack of administrative support for ITDE (instructional technology and distance education) issues, and faculty who are reluctant to adopt technology and distance learning” (Abromitis, 2002, p. 1). At the forefront of the funding issue is faculty salary.

While most faculty members are compensated for the time invested in the development and transfer of a traditional face-to-face course to a distance education course, for many faculty members this time consuming task is considered part of their workload (Bower, 2001). A reduction in workload is also used by some institutions as an incentive for faculty members to participate in the development of a distance education course. A survey conducted in 2000 by the National Educational Association indicated that only 16 percent of the faculty were provided release time for the development of a distance education course but “needed to demonstrate increased productivity through other means such as increased student-faculty ratio in distance learning classes” (Bower, 2001, p. 2).

According to the EDUCAUSE survey of 2003, training, support and faculty development were rated as important issues concerning distance education; however, despite their importance, they are not “among the top ten” issues (Crawford, Rudy, & EDUCAUSE Current Issues Committee, 2003). Faculty are used to being considered experts of the subject matter they are teaching and are not easily enticed to venture into the distance education arena without proper training (Bower, 2001).

Faculty also feel abandoned due to the lack of administrative support. Their efforts in distance education course development seem to go unnoticed for “contributions to distance education rarely move faculty members toward tenure” thus decreasing faculty participation in DE courses.

Fender (2001) notes that

institutions need to be clear in marketing about what is expected of students and what distance education is; technology should never get in the way of instruction; considering the needs of distance students must be

a primary concern; faculty should be encouraged to participate in delivering courses via means of distance education; and further research needs to be focused on specific technologies and pedagogical issues in distance education in order to better develop best practices in course delivery. (p. 138)

In Adams and DeFleur's study, hiring committee chairpersons were asked who they would hire for a faculty position: 1) an individual with a on-line degree, 2) an individual with a traditional face-to-face degree or 3) an individual with mixed course work. Of the 59 public and 43 private education institutions in 39 states, 98% of the 109 respondents indicated that they would not hire a candidate who had earned an on-line degree. Additionally, "85% of their respondents, indicated that they had reservations with doctoral degrees earned on-line, and only 4% indicated that the type of institution where the degree was earned was of no importance" (Adams & DeFluer, 2005, p. 78). Their qualitative findings provided comments such as

- While I am not wed to traditional teaching approaches, there can be no substitute for face-to-face interaction and experiential learning.
- A degree obtained via the Internet is akin to one ordered from a catalog. (p.80)

In 2003, Howell, Williams and Lindsay identified 32 trends in distance education which are categorized into the areas of student, faculty, academic, technology, economic and distance learning. The categories are as follows:

Student/Enrollment Trends

- Current higher education infrastructure cannot accommodate the growing college-aged population and enrollments, making more distance education programs necessary.
- Students are shopping for courses that meet their schedules and circumstances.
- Higher-education learner profiles, including on-line, information-age and adult learners, are changing.
- Retention rates concern administrators and faculty members.

Faculty Trends

- Traditional faculty roles are shifting or “unbundling.”
- The need for faculty development, support, and training is growing.
- Some faculty members are resisting technological course delivery.
- Instructors of distance courses can feel isolated.

Academic Trends

- Knowledge and information are growing exponentially.
- The institutional landscape of higher education is changing: traditional campuses are declining, for-profit institutions are growing and public and private institutions are merging.
- There is a shift in organizational structure towards decentralization.
- Instruction is becoming more learner-centered, non-linear, and self-directed.

- There is a growing emphasis on academic accountability.
- Academic emphasis is shifting from course-completion to competency.
- Education is becoming more seamless between high school, college and further studies.
- Higher education outsourcing and partnerships are increasing.
- Some advocate standardizing content in learning objects.

Technology Trends

- Technological devices are becoming more versatile and ubiquitous.
- There is a huge growth in Internet usage.
- Technological fluency is becoming a graduation requirement.

Economic Trends

- With the economy in recession, there are fewer resources for higher education and higher education initiatives, such as distance education.
- Funding challenges are at the top of IT concerns for many.
- Lifelong learning is becoming a competitive necessity.

Distance Learning Trends

- More courses, degrees, and universities are becoming available through distance education programs.
- The Internet is becoming dominant among other distance education media.

- The distinction between distance and local education is disappearing.
- The need for effective course-management systems and Web services is growing.
- There is an increasing need for learning and teaching strategies that explain the capabilities of technology. (p. 2-17)

Despite the issues, distance education is on the rise and “expanding at a steady rate in many institutions. . . it will be just a matter of time before distance education becomes the dominate form of teaching and learning” (Saba, 2005, p. 257).

Theories in Distance Education

According to Simonson et al., (2003), “attempts at theoretical explanations of distance education have been undertaken by leading scholars in the field” (p. 36); distance education is believed to be completely different from traditional face-to-face classroom instruction. In 1986 Borje Holemborg began to voice his concerns of the lack of theories explaining and identifying distance education because of his belief that distance education was not different from traditional classroom instruction. Holemborg stated that “distance education was not a “deviation from conventional education, he claimed that it was a distinct field of education, parallel and a complement of conventional education” (Schlosser & Anderson, 1994, p.6). Several theories have been proposed that could strengthen and support this new type of learning. These theories were also presented in the hopes of bridging traditional face-to-face classrooms with distance education and thus ending the quality debate. The theories for distance education can be categorized into three distinct areas: independence and autonomy,

industrialization of teaching, and interaction and communication and transactional distance (Simonson et al., 2003; Moore, 1997a; Moore, 1997b; Moore, 2003).

Independence and Autonomy

According to Charles Wedemeyer the most important feature of distance education was the “independence of the student” (Simonson et al. 2003, p. 38).

Wedemeyer proposed ten distinct characteristics within distance education to promote student independence and the implementation of technology to foster that independence

operating anywhere there were students, regardless of the teacher’s presence, the placement of responsibility for learning on the student, wider choices and opportunities in courses, formats and methodologies, the use of appropriate teaching media and methods that have been proven effective, the mixture of media and methods so that each subject or unit within the subject is taught in the best way known, the redesign and development of courses to fit into an ‘articulated media program’, preserving and enhancing opportunities to adapt to individual differences, evaluating student achievement and permitting students to start, stop and learn at their own pace (Simonson et al., 2003, p. 38).

Additionally Simonson et al., (2003) indicate that Wedemeyer believed that independent study systems should contain the following six characteristics:

- 1) the student and teacher are separated,
- 2) the normal process of teaching and learning is carried out in writing or some other medium,
- 3) teaching is individualized,
- 4) learning takes place through the student’s activity,
- 5)

learning is made convenient for the student and 6) the learner takes responsibility for the pace of his/her own progress. (p. 38-39)

Although Wedemeyer delineated and emphasized several characteristics concerning independent study foundationally, he also stated that the similarities between on-line and traditional classroom learning were “a teacher, a learner or learners, a communication system or mode, and something to be taught or learned” (Simonson et al., 2003, p. 39). As long as there was a relationship between the learner and the instructor then distance education would prove to be successful.

Moore added the two variables of autonomy and the distance between teacher and learner to Wedemeyer’s theory of independence (Schlosser & Anderson, 1994). Since there is a “gap between teacher and student” (Schlosser & Anderson, 1994, p. 8), the student must be accountable for his/her learning. Moore (1977b, 1997c) defines autonomy as “the extent to which the learner in an educational program is able to determine the selection of objectives, resources and procedures and the evaluation design” (p. 17). Although the student requires very little assistance from the instructor, some may “require help in formulating their learning objectives and in identifying sources of information and in measuring objectives” (Schlosser & Anderson, 1994, p. 8). Moore also states that “the success of distance teaching (education) is the extent to which the instructor provides the needed quantity and quality of learning materials and communication” (Moore & Kearsley, 1996, p. 206).

Theory of Industrialization of Teaching

Peters (1998) proposed the Theory of Industrialization of Teaching and stated that traditional group based education can be considered as a pre-industrial form of education.

Peters's theory included new terminology for analyzing distance education (Schlosser & Anderson, 1994). Peters (1988, 1993) used terms such as: division of labor, mechanization, assembly line, mass production, standardization, change of function and centralization when discussing the possibilities of distance education; these terms were more commonly used when discussing business and commerce, not a form of education. Peters realized that this theory of industrialization of teaching was extensive and had disadvantages; however, he concluded that any investigation of teaching needed to include the industrial characteristics and determined that distance education supports the industrial and technological age (Moore & Kearsley, 1996).

Interaction and Communication

Holmberg also proposed a theory of distance education which he calls guided didactic conversation: the theory of interaction and communication. Seven assumptions underlie Holmberg's theory:

- the core of teaching is interaction between the teaching and learning parties; it is assumed that simulated interaction through subject-matter presentation in pre-produced courses can take over part of the interaction by causing students to consider different views, approaches and solutions and generally interact with a course,
- the emotional involvement in the study and feelings of personal relation between the teaching and the learning parties are likely to contribute to learning pleasure,
- learning pleasure supports student motivation,

- participation in decision-making concerning the study is favorable to student motivation,
- strong student motivation facilitates learning,
- a friendly, personal tone and easy access to the subject matter contribute to learning pleasure, support student motivation and thus facilitate learning from the presentations of pre-produced courses, i.e., from teaching in the form of one-way traffic simulating interaction, as well as from didactic communication in the form of two-way traffic between the teaching and learning parties,
- the effectiveness of teaching is demonstrated by students' learning of what has been taught. (Holmberg, 1989; Moore, 2003)

Holmberg believed that his theory facilitated student motivation, learning and pleasure and made the learning relevant to the student. Additionally, it formed a connection between the student and the distance educational institution allowing for more than just communication but for an actual dialog to and from the student enrolled in a distance education course (Holmberg, 1989; Holmberg, 1997; Schlosser & Anderson, 1994).

Transactional Distance

Moore, (1997a) states that distance education is not just the geographical distance between student and teacher, it is more of a “pedagogical concept” (p. 22). Moore (1997a) further states that transaction is

the separation of learners and teachers that profoundly affects both teaching and learning. With separation there is a psychological and

communications space to be crossed, a space of potential misunderstanding between inputs of the instructor and those of the learner. It is this psychological and communications space that is the transactional distance. (p. 22)

In his theory Moore (1997a) indicates that a successful distance education is the effort of the institution and the instructor “providing the appropriate opportunities for dialogue between teacher and the learner as well as on appropriately structured learning materials” (p. 24).

These foundational theories were developed specifically to explain distance education and how instructors engage students through different technological media. Distance education was also compared to industry and the beginnings of the standardization of education. These foundational theories and the continued effort of scholars, such as Simonson’s Equivalency Theory, indicate that distance educational programs courses contain rigor and quality.

As indicated in Chapter I, equivalency theory’s main elements include the “concepts of equivalency, learning experiences, appropriate application, students, and outcomes” (Simonson, Schollosser & Hanson, 1999, p. 7) which are also the basis of foundational values in American education. At the core of equivalency theory is the learning experience of the learner. Regardless of the environment, the learning experience of the learner should be the same (Simonson et al. 2003). According to Simonson et al., (2003)

Just as a triangle and a square may have the same area and be considered equivalent even though they are quite different geometrical shapes, the

experiences of the local learner and the distant learner should have equivalent value even though these experiences might be quite different.

(p. 47)

The learning experience of a student can be “anything that promotes learning, including what is observed, felt, heard, or done. . . and the goal of instructional planning is to make the sum of the experiences for each learner equivalent” (Simonson et al., 2003, p. 47).

Therefore, while the environment is different the learning experience of a distance education course should remain the same as a traditional face-to-face course (Simonson, 1999).

Historical Background of the Virtual College of Texas

The Virtual College of Texas (VCT) was the creation of the Texas Association of Community Colleges which consists of Texas community college presidents. Initial discussions began in 1996 and, by 1997, plans for VCT’s creation were implemented. In the fall of 1998, the Virtual College of Texas was in operation with its mission to “enhance access to higher education by sharing distance learning resources among member colleges” (Virtual College of Texas Orientation, 2006, Slide No. 3).

VCT allows for the sharing of community college resources, such as courses, faculty, student services, technology and administrative support. By sharing these resources, students enrolled in higher education institutions in Texas have the opportunity to access courses all over the state.

VCT works by allowing Texas community colleges to host or provide distance education courses. This host-provider model is detailed in the memorandum of understanding that the member colleges operate under and were approved by the

Southern Association of Colleges and Schools. According to the VCT Operations Manual (2006)

The host or local college agrees to 1) enroll students locally to take courses from remote (provider) colleges, 2) provide VCT enrolled students with the same slate of student services it provides its other students, 3) administer tests as directed by provider colleges' instructors, 4) award course credit and 5) include the courses on its own transcripts. The provider college or remote college agrees to 1) provide instructors who define course content and instructional methodologies, direct all class activities, including assignments and tests, and award final grades, 2) establish the academic calendar for courses it offers through VCT. (p. 4)

Additionally, the host college pays the provider college for its instructional services via a "per-student fee, which does not exceed the contact hour reimbursement it receives from the state" (Virtual College of Texas Orientation, 2006, Slide No. 14).

Since VCT began, students have been enrolled in courses offered on-line, through interactive video, and by telecourses. On occasion there have been some print-based courses; however, the delivery of on-line courses has been the most common form of media used. On-line courses represent 88 percent of all the classes offered via VCT. Table 4 below provides the number of classes offered by VCT and the format in which they were offered from the time of operation through the summer of 2008. The Internet and Telecourses were not documented for the first two semesters that they were offered.

Table 4. VCT Distance Education Courses Learning Format from the First Course Offered until the Summer of 2008

Format	Number of Courses	Number of Enrollments
On-line Courses	8,153	41,358
Interactive Video	397	4,000
Telecourses	282	1,269
Other	26	104
Total	8,858	46,731

Students enrolled in these courses pay in-district tuition at their local and/or host colleges regardless of which provider college course they are enrolled. The VCT course enrollments by semester for each fiscal year indicated that in 1999 there were 623 students enrolled and, by summer of 2008, the number had increased to 46,731 for all of the types of courses offered by VCT. Currently the VCT ten year reports beginning in 1998 through the summer of 2008 indicate that:

- VCT is Texas' largest higher education collaboration
- Over 47,000 course enrollments (*1 enrollment = 1 student getting a specific course when needed*)
- Approximately, \$14,430,519 college revenue generated
- VCT was awarded for Excellence and Innovation in Distance Learning by Texas Distance Learning Association (Virtual College of Texas Ten-Year Scorecard, 2008)

The authority of VCT is controlled by the Texas Association of Community Colleges or TACC. TACC is comprised of the college president or chief executive officer of each two-year community college. The main purpose of TACC is to provide

guidance, direction, decisions for new endeavors and assessment for its performance and the future performance for VCT.

The daily operations of VCT are accomplished with the assistance of the member colleges and a VCT staff. The member colleges retain a VCT coordinator and course contacts that are accountable for the general VCT functions at their respective colleges. Course contacts enroll students in the VCT courses. At some colleges the VCT coordinator and course contact tasks are fulfilled by one individual. The VCT staff consists of a director and a web manager. The VCT staff communicates with member colleges “regarding policies, procedures and activities, and maintains the VCT website, produces reports and writes and assists with new proposals and organizes and conducts statewide meetings” (*Virtual College of Texas Operations Manual*, 2006, p. 8).

Consortia such as VCT had been reviewed and accredited by the “then prevailing idea that ‘good teaching is good teaching’ . . . in other words, they were based on principles set forth by Chickering and Gamson (1987) for face-to-face classroom teaching” (Sherry, 2003, p. 446); therefore, if teaching face-to-face in the classroom was good, then transitioning to distance education would not interfere with good teaching. Many changes for the evaluation of distance education courses and programs were being implemented and developed due to the changes and advances in technology (Sherry, 2003).

On July 14, 2005, each member institution received notification that they would need to provide detailed information for the Southern Association of Schools and Colleges Statewide VCT Review. A detailed outline of the review process required that each member college provide information on 1) their status as a host or a provider

college, 2) a compliance certification, 3) a peer review, and 4) a report of the peer review. On September 20, 2005, representatives of each member college met and discussed the details of the SACS Review of VCT.

One of the items of compliance for the SACS Review of VCT was that host colleges had to indicate how they were complying with principle 3.4.7 of the SACS *Principles of Accreditation* manual stating that

The institution ensures the quality of educational programs/courses offered through consortia relationships of contractual agreements, ensures ongoing compliance with the comprehensive requirements and evaluates the consortial relationship and/or agreement against the purpose of the institution (*Principles of Accreditation*, 2001, p. 23).

The area of concern was the word “quality.” There was no evaluation or pre-evaluation instrument to determine the quality of a course by provider or host institutions.

Additionally SACS principle 3.4.12 clearly delineated the “responsibility of ensuring the content, quality, and effectiveness of its curriculum with its faculty” (*Principles of Accreditation*, 2001, p. 23).

In a meeting held on September 20, 2005, VCT met with the consortia members to provide the method in which they would respond to SACS. The compliance process was divided into three phases (VCT Liaison’s Meeting Minutes, 2005). Phase one would concentrate on the Principle 2.7 which dealt with program content and general education course equivalency, Principle 3.2.7, the comprehensive standards concerning the institutional mission, governance and effectiveness, and Principle 3.7 which focuses on educational program standards for all educational programs including undergraduate

programs, the library and other learning resources, and student affairs (VCT Orientation for SACS Participant Packet, 2005). This phase included the Principles 3.4.7 and 3.4.12 dealing with quality.

The minutes of the September 29, 2005, VCT Liaisons' Meeting recorded that there were 38 college representatives present and the discussion was focused on the compliance certification and how each college would respond. During the meeting, a discussion took place of the responses to Principles 3.4.7 and 3.4.12 and the responses from the VCT Taskforce that was charged to review the Abbreviated Compliance Certification criteria. The responses were as follows:

Principle 3.4.7

The VCT Memorandum of Understanding and other information about VCT participation will be helpful. Describe the process for approving courses; ensure that it is consistent with the college's mission.

- Focus on the consortial relationship and evaluate that. Evaluate your college's participation in VCT—for your institution and students.
- Explain how VCT fits in with the college's mission.

Principle 3.4.12

- This places the responsibility with faculty. Look at how colleges include new classes and programs. Describe your process. Show how the process works with one new course as an example.
- Document where minutes of curriculum meetings are housed.

- This calls for a thoughtful process for adding a course to your inventory, especially when it is a new course that your college does not offer. Document your institution's process.
- Often VCT courses are new for a college. To add them quickly to the local inventory, someone needs to be designated to do that. Who the designated person is depends upon your faculty structure. In some cases, it might be the chief instructional officer, who may work hand in hand with the faculty chair of the curriculum and instructional committee. Specific guidelines for the process should be documented as policy. Faculty involvement must be included.
- If a student requests something not in a colleges catalog/inventory and can't be counted on as an elective in any of the college's programs, allowing the student to take it for personal enrichment is a possibility. Emails to the student explaining that the course counts only for personal enrichment should be kept on file as documentation. (VCT Liaisons' Meeting, 2005, p. 8)

By the end of this meeting, it was agreed that each of the VCT consortia members would develop their own method to review on-line courses for quality in order to meet the Abbreviated Certification Compliance criteria for SACS accreditation. The consortia members also agreed to maintain some standardization and to include and implement the recommendations provided by the VCT Taskforce. A process and instrument for pre-evaluating distance education courses was about to be developed by each of the consortia members.

As indicated earlier in this chapter, VCT is comprised of community and technical colleges within the state of Texas. Not all of the member colleges were present at the September, 2005, meeting where Principles 3.4.7 and 3.4.12 were discussed, yet 38 of them returned to their colleges to embark on the development of an instrument that would determine the quality of a distance education course before it was offered. Regardless of whether the college was a host or provider college, they were now required to ensure the quality of distance education courses. Sherry (2003) had stated that the “growing interest, coupled with yet unknown technological advances, may very well propel distance learning into a quality-based ‘warp-drive’ ” (p.455) and the Virtual College of Texas was about to experience it.

Summary

The purpose of distance education is to provide education to students wherever they may be utilizing the latest technology available. The number of students enrolled in on-line classes in the United States “increased from 1.98 million in 2003 to 2.35 million in 2004 and it is over ten times that projected by the National Center for Education Statistics for the general student population” (Allen & Seaman, 2005 p. 3). Currently Allen and Seaman (2008) report that there are “3.9 million students taking at least one on-line course during the fall 2007 term; a 12 percent increase over the number reported the previous year, (Allen & Seaman, 2008 p. 1). Although the number of students enrolled in distance education continues to increase, the debates on the quality of distance education continue to affect educational institutions, faculty and students. The essence of these debates focuses on what is for quality in a distance education course and/or program of study? Distance education must demonstrate quality for the students that are

enrolled in these courses and/or program of study and “graduate skilled and satisfied students to convince people that it is valid” (Hirumi, 2005, p. 310).

This chapter provided the review of the literature on the history of distance education, key research studies, foundational theories, issues and debates, and the historical background of the Virtual College of Texas. Chapter III will discuss the data collected and the method used for analysis to develop and validate a pre-evaluation instrument to determine quality in a distance education course.

CHAPTER III

METHODOLOGY

The objective of this study was twofold: 1) to understand and extract meaning from the experiences of VCT and the consortium members in determining the criteria for quality in a distance education course and 2) the development of a pre-evaluation instrument for determining quality in a distance education course. The research paradigm utilized was qualitative. In this chapter the rationale for the use of the research paradigm chosen, the research design, and the collection of data from the members of the Virtual College of Texas consortia will be provided.

According to Borg, Gall, and Gall (1993), “the purpose of qualitative research is to develop an understanding of individuals and events in their natural state, taking into account the relevant content” (p. 194); hence, there is a need for this study to understand the experiences of the individuals involved in the development of a pre-evaluation instrument, along with how and why they chose the criteria for its development. It is through the qualitative paradigm that the objectives of this study is reached, which is a “consensus construction that is more informed and sophisticated than any of the predecessor constructions” (Guba & Lincoln, 1994, p. 111) for a valid pre-evaluation instrument to pre-determine quality in a distance education course for the Virtual College of Texas.

This qualitative research design began with determining how to respond to the research questions: 1) How were criteria selected in order to pre-determine the quality of distance education courses by each member of the VCT consortium? and 2) What were the experiences of each VCT consortium member in determining the criteria for use for

determining quality in distance education courses? Since there is a lack of common standards and definition for quality in distance education courses or programs of study, there is a need for a detailed exploration for the possibility of the development of a pre-evaluation instrument to determine quality in a distance education course. The qualitative research paradigm was best suited to accomplish this.

Research Design

Sources of Data

The data was obtained from the member colleges that are part of the Virtual College of Texas Consortium. The sampling techniques used were purposive and convenience sampling. Purposive sampling was used in order to “purposefully seek both the typical and the divergent data” that was relevant to the study (Erlandson, Harris, Skipper & Allen, 1993, p. 33). Convenience sampling was used based on “time, money, locations, availability of sites, or respondents and so on” (Merriam, 1998, p.63).

Number

It is recommended by Lincoln and Guba (1985) to restrict the sample size when the data begins to become redundant. Merriam (1998) recommends that

If you are submitting a proposal to a funding agency, dissertation committee, or oversight board for approval or support, you can offer a tentative approximate number of units to be included (that is people, sites, cases, activities, and so on) knowing full well that this will be adjusted in the course of the investigation. (p.64)

The tentative number of participants offered was all 43 members in the VCT consortia. Their respective websites were searched for documents containing the criteria

used to evaluate the quality of on-line courses and the names of their distance education directors in order to determine the actual members creating the evaluating instruments. At the end of the data collection, the final total number of participants was 16 due to saturation being reached.

Documents

The individual college course evaluation assessments were obtained from the college websites. As stated by Lincoln and Guba (1985) the use of documents is due to their being

always available on a low cost (mostly investigator time) or free basis.

Second, they are a stable source of information in the sense that they may accurately reflect the situations that occurred at some time in the past and that they can be analyzed and reanalyzed without undergoing changes in the interim. Third, they are a rich source of information contextually relevant and grounded in the contexts they represent. (p. 276-277)

These documents were analyzed to compare and contrast the items used to determine quality in distance education courses and as a basis to formulate the questions used in the semi-structured telephone interviews. It is important to note that on-line documents are dynamic, meaning that websites can change dramatically from one day to the next (Merriam, 1998). Therefore, the documents collected were from the college websites and were collected during the same time frame. While documents are thought to be stable sources of information (Lincoln & Guba 1985) a, on-line environment dictates that the stability of the documents can only be maintained by recording the date and time of their retrieval for use in this research study.

Interviews

“Dextor (1970) describes interviews as a conversation with a purpose” (Erlandson, Harris, Skipper & Allen, 1993, p. 87) which allow the researcher to understand and extract meaning from their respondents. Semi-structured interview questions were used to guide the researcher’s conversation with the participants in order to understand the process that they used in selecting the criteria to determine quality in a distance education course. These semi-structured interviews were conducted via the telephone because the members of the VCT consortia are geographically dispersed throughout the state of Texas (Creswell, 2002). The aim of the interviews was determined using the focus of this study and purposive, and convenience sampling techniques. Hence, semi-structured telephone interviews were utilized.

During the course of this study, it was evident that the design was emerging and would include an educational research and development strategy. The rationale and basis for using this strategy is due to the development of an educational product for use—a pre-evaluation instrument to determine quality in distance education courses for the Virtual College of Texas Consortia members (Borg & Gall, 1989).

According to Borg and Gall (1989) educational research and design (R&D) is a “process used to develop and validate educational products” (p.782). Borg and Gall (1989) describe the R&D cycle in 10 major steps:

1. Research and information collecting—includes needs assessment, review of literature, small-scale research studies, and preparation of the report.
2. Planning—includes defining skills to be learned, stating and

- sequencing objectives, identifying learning activities, and small-scale feasibility testing.
3. Developing preliminary form of product—includes preparation of instructional materials, procedures, and evaluation instruments.
 4. Preliminary field testing—interview, observational, and questionnaire data collected and analyzed.
 5. Main product revision—revision of product as suggested by the preliminary field-test results.
 6. Main field testing—quantitative data on subjects' precourse and postcourse performance are collected.
 7. Operational product revision—revisions of the product as suggested by main field-test results.
 8. Operational field testing—interview, observational, and questionnaire data collected analyzed.
 9. Final product revision—revision of product as suggested by operational field-test.
 10. Dissemination and implementation—report on product at professional meetings and in journals. Work with publisher who assumes commercial distribution. Monitor distribution to provide quality control. (p. 785)

The focus of this study was to develop a pre-evaluation instrument to determine quality in distance education courses for the Virtual College of Texas consortia members; therefore, the R&D cycle was evaluated and the researcher determined that not all of the

major steps would be applicable and some modification would need to be considered. Borg and Gall (1989) indicate that a “considerable amount of resources” is often required when utilizing the educational research and development cycle (p. 798) and the possibility of scaling down the educational R&D cycle is to “limit development to just a few steps” (p. 798). Hence, the major steps of the educational research and development cycle used in this research study were research and information collecting, planning, developing preliminary form of the product, and preliminary field testing, dissemination and implementation. The details of the major steps utilized in this study are discussed and provided in this chapter under the section of data collection.

As in any research study, a researcher is to maintain methods to validate his/her study and according to Creswell and Miller (2002), in qualitative research “the validity procedures reflected in this thinking present criteria with labels. . . such as trustworthiness (i.e., credibility, transferability, dependability, and conformability), and authenticity” (p. 126). The validation in this study begins with the researcher, for the researcher is the most important instrument for the collection of data and its analysis. Additionally the process used to maintain the level of integrity is discussed further.

Credibility was established through the relationship between the researcher and the participants in this study. The researcher provided the participants the assurance needed by “providing the particular setting so that it rings true for them” (Erlandson, Harris, Skipper & Allen, 1993, p. 30). Additionally Lincoln and Guba (1985) suggest the following for credibility:

Five major techniques: activities that make it more likely that credible findings and interpretations will be produced, (prolonged engagement,

persistent observation, and triangulation); an activity that provides an external check on the inquiry process (peer debriefing); an activity aimed at refining working hypotheses as more and more information becomes available (negative case analysis); an activity that makes possible checking preliminary findings and interpretations against archived “raw data” (referential adequacy); and an activity providing for the direct test of findings and interpretations with the human sources from which they have come—the constructors of the multiple realities being studied (member checking). (p.301)

Of the five major techniques suggested by Lincoln and Guba (1985), this study used multiple sources of data including interviews, peer debriefing, member checks and document analysis to ensure greater “confidence in the observed findings” (Erlandson, Harris, Skipper, & Allen, 1993, p. 139). Interviews with prepared semi-structured questions were used to gain information on the participants’ experiences in the development of an assessment and/or evaluation instrument to determine quality in a distance education course.

According to Lincoln and Guba (1985)

peer debriefing is the second of the techniques useful in establishing credibility. It is a process of exposing oneself to a disinterested peer in a manner paralleling an analytic session and for the purpose of exploring aspects of the inquiry that might otherwise remain only implicit within the inquirer’s mind. (p. 308)

Lincoln and Guba (1985) also discuss four purposes for peer debriefing. The first is to

keep the researcher “honest” (p. 308). The debriefer assists the researcher in ensuring that any biases are reviewed and all interpretations are focused on the research questions. Secondly, the peer debriefing provides the researcher the ability to test any emerging hypotheses. Additionally, the debriefer assists the researcher in defending the direction and/or changing direction he/she may take. A fourth purpose of peer debriefing allows the researcher to ensure that the “next steps” taken are considered thoroughly (Lincoln & Guba, 1985, p. 308). Finally peer debriefing allows the researcher to clear any negative emotions and/or thoughts that could become obstacles and hinder the integrity of the study.

Member checking is also an activity that was used in order to ensure that the “data, analytic categories, interpretations, and conclusions are tested with members of those stakeholder groups from whom the data were originally collected; it is the most crucial technique for establishing credibility” (Lincoln & Guba, 1985, p. 314). The assessment and/or evaluation instruments were analyzed for similar and contrasting criteria used to determine quality in a distance education course. Document analysis was used to facilitate triangulation as stated by Lincoln and Guba (1985) as “different sources of the same information (for example, verifying on interview respondent’s recollections about what happened at a board meeting by consulting the official minutes)” (p. 305). While triangulation was utilized, its use did not provide data reduction; instead, it expanded the meaning “through overlapping, compatible constructions emanating from different vantage points” (Erlandson, Harris, Skipper, & Allen, 1993, p. 139).

Although a qualitative study does not enable generalizations across populations, it may contain “shared” common characteristics allowing the study to have what is termed

transferability. It is the “obligation of the researcher to demonstrate transferability to those who would apply it to the receiving context” (Erlandson, Harris, Skipper, & Allen, 1993, p. 33). There are different ways to facilitate transferability and examples are thick description and purposive sampling. According to Denzin (1989), “thick descriptions are deep, dense, detailed accounts ... Thin descriptions, by contrast, lack detail and simply report facts” (p. 83). The purpose of thick descriptions is to establish credibility by transporting the reader via the detailed story into a setting or event (Creswell & Miller, 2002). Purposive, convenience, and homogeneous sampling were used in order to “increase the scope or range of data exposed” (Lincoln & Guba, 1985, p. 40). The transferability of this study was demonstrated through the multiple sources of data and participants.

An audit trail which is defined as the “residue or records stemming from the inquiry” (Lincoln & Guba, 1985, p. 319) was utilized to provide proper documentation of all interviews and documents thus establishing dependability and confirmability.

According to Lincoln and Guba (1985), there are six groupings of audit trail material and they are “raw data, data reduction and analysis products, data reconstruction, and synthesis products, process notes, materials relating to intentions and dispositions, and instrument development information. The audit trail for this study was as follows:

1. Raw Data: The documents obtained from the college websites and the interview transcripts from the participants.
2. Data Reduction and Analysis Products: The reduction notes and cards used.
3. Data Reconstruction and Synthesis Products: The development of an on-line Likert scale survey, and a new pre-evaluation instrument to determine quality

- in a distance education course or courses.
4. Process Notes: The reflective journal.
 5. Materials relating to Intentions and Dispositions: The reflective journal and peer debriefing notes.
 6. Instrument Development Information: The development of a final pre-evaluation instrument for the determination of quality in a distance education course or courses for the Virtual College of Texas consortia members.

A reflective journal was also used in order for the researcher to record the “judgment calls the auditor must make...” (Lincoln & Guba, 1985, p. 327). Since the beginning of this dissertation a reflective journal has been kept by the researcher in order to record all of the activities, ideas, obstacles, and progress status.

Participants

The participants of this study were drawn from the community colleges and their faculty members and/or distance education directors that are part of the VCT Consortium; hence, purposive, convenience and homogeneous sampling were utilized. Although there are 43 community colleges in this consortium, the number of community colleges that participated in the VCT meetings concerning the development of criteria for the measurement of quality in a distance education course had yet to be determined. Those that participated in this study at the end of the data collection in order to obtain data saturation were as follows:

- 10 consortia web sites contained evaluation documents for document analysis.
- 12 consortia members responded to the Likert Scale.
- 22 consortia member responded favorably to the pre-evaluation instrument to

determine quality in a distance education course and 6 of the 22 provided detailed responses.

- 13 consortia members responded as willing participants to the semi-structured interviews, however only six were interviewed. (Details are provided in Chapter IV.)

Ethical Considerations

The ethical considerations that provided the basis for which this study was conducted were as follows (Erlandson, Harris, Skipper & Allen, 1993; Borg & Gall, 1989; Merriam, 1998):

1. Protection of participants from any psychological harm such as loss of self-esteem.
2. Protection of participants' confidentiality.
3. Informed consent obtained prior to any research. (See Appendix A)

All names and related data were substituted with an alias to protect each individual's identity. The primary researcher (project leader) was the only person who knew the participants' names. All related data was placed on a secured server and any hard copies of the data reside at the researcher's residence.

Data Collection

In the collection of data there is one noted difference in the manner in which data is collected in a qualitative study, i.e., there is no "pre-ordinate design or established procedures to follow" (Erlandson, Harris, Skipper, & Allen, 1993, p. 39); however, during the collection of the data the researcher has a tentative design that provides guidance and direction but it is not unusual for modifications to occur during the course

of the study. As noted earlier in this chapter the initial design of the study changed to incorporate part of the educational research and development cycle explained by Borg and Gall (1989). The data collection included the gathering of the documents from the college websites and the responses to the semi-structured telephone interviews. This collection of data aligns with the first two major steps of the R&D process which is research information and collecting and planning.

Assessment or evaluation documents were obtained from the VCT consortia websites for document analysis. The researcher was looking for the criteria used to determine quality in their distance education courses. Importance of these documents according to Merriam (1998) is that they provide “a ready-made source of data” and “can provide descriptive information, verify emerging hypotheses, can advance new categories and hypotheses” (p. 126). Additionally, the criteria developed can “ground” this study in the very problem that it intends to investigate – the development of a pre-determination of quality in a distance education course. “This grounding in real-world issues and day-to-day concerns is ultimately what the naturalistic inquiry is working toward” (Guba & Lincoln, 1981, p. 234).

Other data sources that were collected for this study included the semi-structured interviews and the use of an on-line Likert scale survey in order to determine the development of a pre-evaluation instrument for VCT and their consortium members.

The essence of an interview is to have a “conversation with a purpose” (Merriam, 1998, p. 71). The semi-structured interview includes five semi-structured questions that will allow the researcher to gain essential information from the participants; however, this form of data collection will also allow the researcher to respond to any “emerging

worldview of the respondent and to new ideas on the topic” (Merriam, 1998, p. 74). The interviews were audio taped and transcribed for analysis. The Informed Consent Form, Nomination Form and the Sample Electronic Mail Message for requesting participation from the VCT consortia members can be found in Appendix A.

Data Analysis

Before determining the strategy that was used for data analysis, a review of the various strategies provided by Merriam (1998) was consulted. The options provided by Merriam (1998) were Ethnographic Analysis, Narrative Analysis, Phenomenological Analysis, the Constant Comparative Method and Content Analysis and Analytic Induction. The justification for the use of Narrative Analysis as opposed to the other strategies is detailed below.

1. Ethnographic Analysis was determined not be viable data analysis strategy. This strategy focuses on the “culture and social regularities of everyday life” (Merriam, 1998, p. 156) and, therefore, is not relevant to the research questions posed in this study.
2. Phenomenological Analysis “attends to the ferreting out the essence or basic structure of a phenomenon” (Merriam, 1998, p. 156). The essence of this strategy is to review the phenomenon from many different views and perspectives (Merriam, 1998) and since this study is focused primarily on the VCT consortia members, this strategy was found to be inapplicable.
3. The Constant Comparative Method is used primarily to support a hypothesis in “developing grounded theory” (Merriam, 1998, p. 156).

This strategy did not provide any assistance towards the analysis of data gathered in this study.

4. Content Analysis and Analytic Induction are used “in any inductive analysis of qualitative data” (Merriam, 1998, p.156). This strategy is similar to the constant comparative method in that they both have a quantitative element. This strategy was used as a means of support for this study.
5. Narrative Analysis tells the story of humans experiencing the world (Merriam, 1998). This strategy offers a strategy more aligned with the focus of this study and is relevant to the research questions. Stake (2000) states that “storytelling as cultural representations and as sociological text emerges from many traditions, but no where more strongly than oral history, and folklore, and is becoming more disciplined in a line of work called narrative inquiry”(p. 445).

Reflective analysis was also used in this study to analyze the data gathered.

Reflective analysis relies on the “intuition and personal judgment of the researcher to analyze the data rather than on technical procedures involving explicit category classification systems” (Dooley, 2000, p. 343).

After the analysis was completed, the other major steps in the educational research and development cycle were implemented. The development of a preliminary form of a product was completed after the analysis of the documents obtained from the college websites and the transcribing of the telephone interviews and was presented in a Likert scale survey. This survey aligns with the preliminary field testing step in the

educational R&D cycle. Once the survey was closed, it was analyzed and the development of a pre-evaluation instrument to determine quality in a distance education course or courses was completed. Following the dissemination of the pre-evaluation instrument the VCT consortia members, their comments were reviewed and documented.

Summary

This chapter provided the rationale for the use of the qualitative research paradigm, the methods used to collect and analyze data in order to obtain the information posed by the research questions for this study. Methods for ensuring credibility were also discussed to ensure the integrity of this study. Additionally a pre-evaluation instrument to determine quality in a distance education course was developed based on the data collected from the participants of the VCT consortium members. Chapter V provides a detailed accounting of the analysis of the data.

CHAPTER IV

ANALYSIS OF THE DATA

This chapter provides the data collected from the Virtual College of Texas websites and the telephone interviews during the months of January 2008 through the end of July 2008. This chapter provides the data for the member colleges that responded to the Southern Association of Schools and Colleges (SACS), as stated in Chapter II, on their request for information on 1) member colleges status as a host or provider college, 2) a compliance certification, 3) a peer review, and 4) a report of the peer review. Additionally, they were to respond to the 3.4.7 principle of the SACS *Principles of Accreditation* which asks how the college ensures the quality of their educational programs/courses through the VCT consortia relationships and 3.4.12 principle that places the responsibility of the quality of the distance education courses offered with the respective consortia member faculty (*Principles of Accreditation*, 2001). It is the responses and their information that will define the purpose of this study which is 1) a detailed examination of the criteria for a pre-evaluation utilized to measure quality in distance education course for the VCT consortia members, 2) to examine the process each consortium member went through in order to determine the quality of the distance education courses they offered, and 3) to utilize the analyzed findings to formulate a pre-evaluation instrument for determining quality in a distance education course or courses for the VCT consortia members.

The analysis of the data collected is organized to respond to the research questions as outlined in Chapter I which were 1) How were criteria selected to pre-determine the quality of a distance education course by each participating member of the

VCT consortium and 2) What were the experiences of each VCT consortium member in determining quality in a distance education course?

This chapter includes 1) the evaluation documents obtained from the VCT college websites and their analysis, 2) the development of an on-line Likert scale survey, and its analysis, 3) the telephone interviews, their transcriptions and analysis, 4) the development of a pre-evaluation instrument to determine quality in a distance education course or courses and 5) any ancillary findings.

Data Collection Findings

As stated in Chapter III, the design of this study was modified as supported by Creswell's (2002) statement that "Qualitative research is considered to be an emerging design. An emerging process indicates that the intent or purpose of a study and the questions asked by the researcher may change during the process of inquiry based on feedback or responses from the participants" (p. 147). The development of a pre-evaluation instrument for determining quality in a distance education course or courses aligned with the educational research and development strategy of Borg and Gall (1989) and thus the design of this study had to be adjusted. Once the adjustment was made, the collection of the evaluation instruments used for distance education courses offered by the VCT colleges were gathered and requests for participation in telephone interviews were emailed.

Evaluation Document Analysis

All 43 VCT college websites were accessed and searched for evaluation documents used in their respected distance education course or courses. Most of the VCT colleges had the information for faculty and staff to review and access within the

departmental websites titled Distance Education and/or Distance Learning. Only one college had this information accessible via a specific college username and password. This college was contacted and the distance education director provided temporary access and agreed to participate in the telephone interview. Of the 43 colleges, the evaluation instruments obtained for document analysis were 10.

The analysis of these documents began by determining what they had in common and then where they were different. The commonalities were then categorized. This categorization process is “mostly intuitive, but is also systematic and informed by the study’s purpose, the investigator’s orientation and knowledge, and the meanings made explicit by the participants themselves” (Merriam, 1998, p. 179). The categorization of these units of information and/or criteria used to evaluate a distance education course or courses was the basis for the development of the on-line Likert scale survey. Table 5 shows the nine general categories and the number of colleges who had the categories in their respective evaluation documents.

Table 5. General Categories from the VCT Evaluation Documents Analyzed for Distance Education

General Category	Number of Colleges with the category in their evaluation documents.
Course Overview	8
Learning Objectives	7
Assessment Measurements	3
Resource Material	6
Student/Instructor Interaction	6
Student/Student Interaction	6
Student Support	5
Course Technology	6
Accessibility	3

Before detailing the category information, it was noted that one college followed the Peer Review Rubric provided by the Quality Matters Organization during the fiscal year 2005-2006. According to Sener (2006), the Quality Matters Organization began in 2003 as a method for providing inter-institutional quality for on-line courses. The Quality Matters Organization has developed a process for certifying the quality of an on-line course based on pre-defined rubrics that they provide. Since their beginning this organization is now self-supporting by offering its service through subscriptions and currently has 120 subscribers in more than thirty states.

The rationale for the notation is to deter any assumptions or suspicions concerning the quality criterion found in each of the college evaluation instruments and/or assessments from the Quality Matters Peer Course Review Rubric.

General Category Analysis

The first category out of the nine categories found was that of Course Overview. This category provided general information about the course and the course content that the student was enrolled in. Eight of the ten colleges, evaluation documentation had the following informational items in the general category of Course Overview:

1. Course Introduction—Included the description of the course, and an explanation of what students should do first.
2. Course Syllabi—Included course contact information, etc.
3. Course Prerequisites—Included technology requirements, i.e., hardware, software, Internet access, etc.
4. Course Assessment Information—Included the manner in which students would be assessed throughout the semester, such as quizzes, exams, etc.
5. Course Policies and Procedures—Included information concerning course attendance policies, assignment deadlines, assignment formats, etc.
6. Calendar of Semester Course Assignments—Included the dates of assignment deadlines, project deadlines, etc.
7. Instructor Information/Introduction—Including Autobiography and/or Curriculum Vitae

The second category found was Learning Objectives. There were seven colleges in the VCT consortia whose evaluation instruments contained the following informational items that related to Learning Objectives:

1. Course Learning Objectives—This criterion dealt with making sure that the course objectives were stated clearly for the students to understand; they were described in such a manner that measureable outcomes were understood and an explanation including clear indications of how the course learning objectives would be met by the students.

The third category found was Assessment Measurements. There were three colleges in the VCT consortia whose evaluation instruments contained the following five informational items under this category:

1. Course Grading Criteria—Included the different assignments, tests, projects, and/or activities for a weighted final grade.
2. Course and/or Departmental Grading Policy—Included information on grades and how they would be determined based on the assignments, quizzes, etc. It also informed the student on late assignments, make-up exams etc.
3. Course Assessments appropriate for the on-line environment—Included the assurance that course assessments were designed for the on-line course environment, such as submission via email, proctored exams, exam and quiz limitations, and printing being disabled during exams.
4. Self-Check Assignments—Included clear and defined assignment grading rubrics, quizzes with feedback and answers provided after completing the quiz and/or the ability to take exams or quizzes with more than one attempt.

5. Course Assessment Consistent with face-to-face classroom course—Included the same grading criteria, assignments, projects course policies etc.

The fourth category was Resource Material. There were six colleges in the VCT consortia whose evaluation documents that contained the following informational items that were related to resource material:

1. Instructor Notes—Included the instructor lecture notes, notes on assignments, and/or projects.
2. Supplemental Course Information—Included added course information in articles, websites, and other reference books.
3. Course Resource Material—Included resource material such as reference book, reserved books or articles in on-line library, and other resource web addresses.
4. Purpose for Course Resource Material—Included ensuring that the purpose for the course resource material was clearly stated for the students' understanding.

The fifth category was Student/Instructor Interaction. There were also six colleges in the VCT consortia whose evaluation documents contained the following nine items under the student/instructor interaction:

1. Asynchronous Discussion—Included ensuring that the discussion was threaded.
2. Synchronous Chat—Included a method for having a predetermined time for chatting, preferably within the course management system.

3. Group Electronic Mail Addresses—Included the electronic mail address for groups of students in teams, or projects within or outside the course management system.
4. Individual Electronic Mail Address—Included the address for students and the instructor outside the course management system.
5. Audio Conferences—Included a method for students and instructors to chat via an audio conference. An example given was using a type of webinar software.
6. Interactive Video—Included predetermined times for instructor and students to meet as a group or for student/instructor on-line appointments.
7. Timely Instructor Feedback—Included a method in which instructors would provide feedback for exams, quizzes and course assignment submission and overall course averages after each major exam.
8. Netiquette—Included the expectations for student conduct during chats, emails, responses, etc., during the course.
9. Course Interaction Requirements—Included the requirements for student interaction throughout the semester. This was to be clearly stated in order for students to understand that this was aside from emails, and that it could or would be evaluated based on time on task.

The sixth category was Student to Student interaction. There were six colleges in the VCT consortia whose evaluation documents contained the following nine items related to this category:

1. Student Introductions—Included student self-introduction and an indication of the reasons for taking the course, their declared major and some personal hobbies or interests.
2. Asynchronous Discussion—Included students responding to a major topic and to other students concerning the same topic of discussion.
3. Synchronous Chat—Included predetermined instructor chats; however, this also included chats where students discussed assignments, chapters or class topics with minimal instructor interaction.
4. Team Projects—Included students engaged in an on-line project, such as a presentation or research paper.
5. Individual Electronic Mail Address—Included students being able to contact each other via email addresses outside the course management system, and/or college provided student email.
6. Group Email Addresses—Included email addresses where all students could be contacted via one account concerning a team project or presentation etc.
7. Audio Conferences—Included the ability for students to be able to contact each other via an audio conference either in the course management system with minimal instructor interaction or outside the course management system with minimal or no instructor supervision or interaction.
8. Interactive Video—Included the ability for student-to-student interactive video for team project completion and/or student peer tutoring.

9. Student Peer Review—Included student assignment postings or team projects to be reviewed by other students in the course and providing constructive comments.
10. Netiquette Expectations—Included the expectations of student-to-student communication and student conduct with minimal or no instructor interaction or supervision.

It was noted that the Student-to-Student interaction contained some of the same items as the Student/Instructor interaction. Further research into this duplication was conducted and it was determined that the rationale for this redundancy was to inform students enrolled that interaction amongst them and other students enrolled in the class was required along with the methods that could be utilized for this interaction.

The seventh category was Student Support. There were five colleges in the VCT consortia whose evaluation documents contained the following three items related to student support:

1. 24/7 Technical Support—Included the main contact assistance for students, the methods of technical support, telephone, email address, etc.
2. Academic Support—Included course or subject tutoring, research paper and assignment editing, etc.
3. Student Services Support—Included library, counseling, career counseling, and club support.

The eighth category was Course Technology. There were six colleges in the VCT consortia whose evaluation documents contained the following six items related to the category of Course Technology:

1. Instructions for technology downloads—Included the type of software needed, the websites and/or links and the contact for assistance.
2. Audio Delivery Method—Included the software utilized for pod casting, MP3's, etc. and the contact for assistance.
3. Audio Delivery Transcriptions—Included the course audios that were transcribed and the contact for assistance.
4. Video Delivery Method—Included the type(s) of software and hardware utilized and the contact for assistance.
5. Video Transcriptions—Included which course videos were transcribed and the contact for assistance.
6. Tools and Media –Included the tools and media required for student activity and the contact for assistance.

The ninth and final category was Accessibility. There were three colleges in the VCT consortia whose evaluation documents contained the following three items:

1. ADA Compliant—Included compliancy with the American Disability Act.
2. Web Pages sensitive and readable—Included website pages to be sensitive to those that were colorblind, blind or partially blind or issues dealing with sensitivity and readability.
3. Web Pages provided alternatives—Included the demonstration of equivalent alternatives to auditory and visual content.

These nine categories with their respective informational items were formatted into an on-line Likert scale survey to be sent to the entire VCT consortia members for their responses. The Likert scale survey was placed on a secure server utilizing a Survey

Monkey account. The Likert scale survey contained 4 responses for each criteria for each of the nine categories. Respondents were asked to determine if they were to Use, Most Likely Use, Most Likely Not Use, and Not Use each category and the items under each of the categories provided. Additionally each category also provided one open ended-question asking respondents to provide any additional information or comments under each category. VCT consortia members were emailed a website link and given one month to respond. See Appendix B for the Likert Scale Survey for respective criteria to develop a pre-evaluation instrument for pre-determining quality in a on-line course or courses for the VCT consortia members.

The decisions for using the criterion were based on the individual criteria indicating the following:

- “Use” response that was on or above 50% or
- “Most Likely Use” that was above 50%.

While a combination of “Use” and “Most Likely Use” responses could be utilized, the researcher decided not to combine the results. Only criterion obtaining on or above 50% as “Use” or “Most Likely Use” was considered for the development of the final pre-evaluation instrument. Table 6 provides a depiction of the analysis on the nine general categories based on the number of VCT colleges’ evaluation documents for distance education.

Table 6. General Category of Analysis from VCT College Evaluation Documents for Distance Education

General Category	Common Criteria under General Category	Number of Colleges with the category and criteria in their evaluation instrument.
Course Overview	<ul style="list-style-type: none"> • Course Introductions • Course Syllabi (Including course contact information etc.) • Course Prerequisites (Including technology requirements) • Course Learning Objectives • Course Assessment Information • Course Policies and Procedures • Calendar of Semester Course Assignments • Information/Introduction (Autobiography and/or Curriculum Vitae) 	8
Learning Objectives	<ul style="list-style-type: none"> • Course Learning Objectives clearly stated for the student • Course Learning Objectives describe measureable outcomes • Course Learning Objectives that indicate how they will be met by the student 	7
Assessment Measurements	<ul style="list-style-type: none"> • Course Grading Criteria • Course and/or Departmental Grading Policy • Course Assessments that are appropriate for the on-line environment • Student Self-Check Assessments • Course Assessment is consistent with face-to-face classroom course 	3
Resource Material	<ul style="list-style-type: none"> • Instructor Notes • Supplemental Course Information • Course Resource Material • Purpose of the Course Resource Material 	6
Student/Instructor Interaction	<ul style="list-style-type: none"> • Asynchronous Discussion (Threaded Discussion) • Synchronous Chat • Individual Electronic Mail Access • Group Electronic Mail Access • Audio Conferences • Interactive Video • Timely Instructor Feedback • Netiquette Expectations • Course Interaction Requirements 	6

Table 6 Continued.

General Category	Common Criteria under General Category	Number of Colleges with the category and criteria in their evaluation instrument.
Student /Student Interaction	<ul style="list-style-type: none">• Student Introductions• Asynchronous Discussion (Threaded Discussion)• Synchronous Chat• Team Projects• Individual Electronic Mail Address• Group Electronic Mail Address• Audio Conferences• Interactive Video• Student Peer Review (Projects and/or Assignments Postings)• Netiquette Expectations	6
Student Support	<ul style="list-style-type: none">• 24/7 Technical Support• Academic Support• Student Services Support	5
Course Technology	<ul style="list-style-type: none">• Instructions for Technology Downloads• Audio Delivery Method• Audio Transcriptions• Video Delivery Method• Video Transcriptions• Tools and Media for Student Activity	6
Accessibility	<ul style="list-style-type: none">• ADA Compliant• Web Pages demonstrate Sensitivity to Readability Issues• Web Pages demonstrate Equivalent Alternatives to Auditory and Visual Content	3

Likert Scale Survey Analysis

During the time period from July 26 to August 26, 2008, the 43 VCT consortia members had the opportunity to respond to the Likert Scale; two invitation emails were sent. One was to invite them to the website to respond to the Likert Scale Survey and the other was to remind them to respond to the Likert Scale Survey. See Appendix B. On August 27, 2008 the survey site was closed and the analysis was performed on the responses provided. A total of twelve members out of the 43 consortia members responded to the survey.

Course Overview Category

Table 7 provides the results of the first category entitled Course Overview. The question asked was “Under the category of Course Overview indicate whether you would use the following criteria for pre-evaluating an on-line course.”

Table 7. Course Overview Category Survey Results

Quality Criteria	Use	Most Likely Use	Most Likely Not Use	Not Use	Responses Count
Course Introduction	58.3 %	33.3%	8.3%	0%	12
Course Syllabi (including course contact information etc.)	83.3%	16.7%	0%	0%	12
Course Prerequisites	66.7%	33.3%	0%	0%	12
Course Learning Objectives	83.3%	16.7%	0%	0%	12
Course Assessment Information	83.3%	16.7%	0%	0%	12
Course Policies and Procedures	81.8%	18.2%	0%	0%	11
Calendar of Semester	58.3%	33.3%	0%	8.3%	11
Course Assignments	58.3%	33.3%	0%	8.3%	11
Instructor Information/Introduction	50%	33.3%	0%	16.7%	12
Total answered the question					12
Total skipped question					0

In this category the entire criterion was on or above 50% as being utilized. Therefore, the entire criterion was considered for the development of the pre-evaluation instrument. There were a total of seven responses to an open ended-question in this first category. When asked if there were any other information or items they would include under this category the responses were as follows:

- “Inform them (students) about help desk and on-line tutorial support.”
- “Necessary course materials (i.e., books, software, etc.).”
- “I will be happy to provide a copy of the assessment rubric we use at XX.”
- “Market demand for course content.”
- “Orientation information.”
- “Interactivity built into course assignments.”
- “Layout and design of the on-line environment.”

The comments were reviewed and were considered during the development of the pre-evaluation instrument to determine quality in a distance education course or courses. It was noted that all of the participants responded to this question.

Learning Objectives Category

Table 8 provides the results of the second category Learning Objectives. The question asked was “Under this category, learning objectives, please indicate whether you would use the following criteria for pre-evaluating an on-line course.”

Table 8. Learning Objectives Category Survey Results

Quality Criteria	Use	Most Likely Use	Most Likely Not Use	Not Use	Responses Count
Course Learning Objectives clearly stated for the student	81.8 %	18.2%	0%	0%	11
Course Learning Objectives describe measureable outcomes	81.8%	18.2%	0%	0%	11
Course Learning Objectives that indicate how they will be met by the student	54.5%	36.4%	9.1%	0%	11
Total answered the question					11
Total skipped question					1

In this category the entire criterion was on or above 50% as being utilized. Therefore, the entire criterion under this category was considered for the development of the pre-evaluation instrument. It is noted that one respondent completely skipped this category. There were a total of two responses to an open ended-question in this category and they are as follows:

- “Match the objectives to the assessment.”
- “Method or means by which objectives will be presented.”

The comments were reviewed and were considered during the development of the pre-evaluation instrument to determine quality in a distance education course or courses.

Assessment Measurements Category

Table 9 provides the results of the third category Assessment Measurements. The question asked was “Under this category of assessment measurements, please indicate whether you would use the following criteria for pre-evaluating an on-line course.”

Table 9. Assessment Measurements Category Survey Results

Quality Criteria	Use	Most Likely Use	Most Likely Not Use	Not Use	Reponses Counted
Course Grading Criteria	33.3%	66.7%	0%	0%	3
Course and/or Departmental Grading Policy	25%	50%	25%	0%	4
Course Assessments that measure the learning objectives	33.3%	66.7%	0%	0%	3
Course Assessments that are appropriate for the on-line environment	100%	0%	0%	0%	2
Student Self-Check Assessments	16.7%	66.7%)	0%	16.7%	6
Course Assessments is consistent with face-to-face classroom course	50%	16.7%	16.7%	16.7%	6
Total answered the question					11
Total skipped the question					1

In this category only five criteria were on or above 50% as being utilized. Therefore, only five criteria under this category were considered for the development of the pre-evaluation instrument. It is noted that one respondent completely skipped this category. There were two responses under this category unrelated to the quality criteria. The comments were related to the need for assistance with responding to the survey itself. The respondents left their information and this researcher contacted them. The questions that they had were answered and they were able to continue providing their responses and completing the survey. The website utilized Survey Monkey allowing the respondents to save their current session and return to it at a later date before the survey deadline date. However, those that commented that they could not complete the question did not return to that particular question, thus, there were only eleven that completed the question. This is the reason that some of the categories had only three respondents. It was determined by this researcher that technical difficulties had occurred due to

circumstances beyond the control of the researcher. The decision was made to include the responses based on original criteria of 50% or above regardless of the number of respondents for this question.

Resource Material Category

Table 10 provides the results of the fourth category Resource Material. The question asked was “Under the category resource material, please indicate whether you would use the following criteria for pre-evaluating an on-line course.”

Table 10. Resource Material Category Survey Results

Quality Criteria	Use	Most Likely Use	Most Likely Not Use	Not Use	Responses Count
Instructor Notes	42.9%	14.3%	28.6%	14.3%	7
Supplemental Course Information	28.6%	42.9%	14.3%	14.3%	7
Course Resource Material	50%	33.3%	0%	16.7%	6
Purpose of the Course Resource Material	30%	40%	20%	10%	10
Total answered question					11
Total skipped question					1

In this category there was only one criterion which was on or above 50% as being utilized. Therefore, one criterion under this category was considered for the development of the pre-evaluation instrument. It is noted that one respondent completely skipped this category. There was one comment made in this category; however, it was unrelated to the question. The respondent had some technical difficulty and was assisted with his/her technical issue and was able to complete the survey. It was surprising to note that the respondents did not consider instructor notes such as lecture notes, notes on assignments and/or projects, supplemental course

information such as websites, added articles and/or projects, or the purpose of the course resource material as criteria for quality.

Student/Instructor Interaction Category

Table 11 provides the results of the fifth category Student/Instructor Interaction. The question asked was “Under the category of student/instructor interaction, please indicate whether or not you would use the following criteria for pre-evaluating an on-line course.”

Table 11. Student/Instructor Interaction Category Survey Results

Quality Criteria	Use	Most Likely Use	Most Likely Not Use	Not Use	Responses Count
Asynchronous Discussion (Threaded Discussion)	50%	30%	20%	0	10
Synchronous Chat	16.7%	16.7%	66.7%	0	6
Individual Electronic Mail	42.9%	51.1%	0%	0%	
Group Electronic Mail	33.3%	33.3%	16.7%	0	7
Audio Conferences	28.6%	0%	42.9%	28.6%	7
Interactive Video	16.7%	33.3%	50%	0%	6
Timely Instructor Feedback	87.3%	12.5%	0%	0%	8
Netiquette Expectations	20%	40%	40%	0%	5
Course Interaction Requirements	87.5%	12.5%	0%	0%	8
Total answered question					11
Total skipped question					1

In this category there were only three criteria on or above 50% as being utilized. Therefore, only three criteria under this category were considered for the development of the pre-evaluation instrument. It is noted that one respondent completely skipped this category. It also was noted that 66.7% stated that they would Most Likely Not Use the Synchronous Chat. This was very surprising since upon further research it was found that during the 12 month 2000-2001 academic year, distance education courses utilized synchronous communication such as

interactive computer conference or Interactive Relay Chat (Watts & Lewis, 2003). There were two comments made in this category; however, neither was unrelated to the question. The respondents were assisted with their technical issue and were able to complete the survey.

Student/Student Interaction Category

Table 12 provides the results of the sixth category Student/Student Interaction. The question asked was “Under the category of student to student interaction, indicate whether you would use the following criteria for pre-evaluating an on-line course.”

Table 12. Student/Student Interaction Category Survey Results

Quality Criteria	Use	Most Likely Use	Most Likely Not Use	Not Use	Responses Count
Student Introductions	50%	25%	25%	0	8
Asynchronous Discussion (Threaded Discussion)	83.3%	16.7%	0%	0%	6
Synchronous Chat	16.7%	16.7%	0%	0%	6
Team Projects	40%	20%	40%	0%	5
Individual Electronic Mail Addresses	42.9%	42.9%	0%	14.3%	7
Group Electronic Mail Addresses	0%	50%	33.3%	16.7%	6
Audio Conferences	40%	0%	40%	20%	5
Interactive Video	20%	0%	80%	0%	5
Student Peer Review (Projects and/or Assignment Postings)	14.3%	85.7%	0%	0%	7
Netiquette Expectations	50%	33.3%	16.7%	0	8
Total answered question					10
Total skipped question					2

In this category there were only five criteria on or above 50% as being utilized.

Therefore, only five criteria under this category were considered for the development of the pre-

evaluation instrument. It is noted that one respondent completely skipped this category. There were no comments provided in this category. Again it was astonishing to note that synchronous chat was not considered as a quality criterion. Team projects was also not considered despite the rise of online learning communities due to “learning is the shared experience which defines the community” (Dowes, 1998, p.12) however Student Peer Reviews were indicated as a Most Likely Use. Individual Electronic Mail Addresses was also excluded from consideration as a quality criterion.

Student Support Category

Table 13 provides the results of the seventh category Student Support. The question asked was “Under the category of student support, please indicate whether you would use the following criteria for pre-evaluating an on-line course.”

Table 13. Student Support Category Survey Results

Quality Criteria	Use	Most Likely Use	Most Likely Not Use	Not Use	Responses Count
24/7 Technical Support	50%	30%	10%	10%	10
Academic Support	42.9%	57%	0%	0%	7
Student Services Support	55.6%	33.3%	11.1%	0%	9
Total answered question					10
Total skipped question					2

In this category three of the criteria were on or above 50% as being utilized. Therefore, only three criteria under this category were considered for the development of the pre-evaluation instrument. It is noted that two respondents completely skipped this category. There were no comments provided in this category. It is also surprising to see that one respondent would be

most likely not use 24/7 technical support as a pre-evaluating criterion for an on-line course and one who would not consider it use at all. When reviewing this response and the question that was asked, an informed assumption was made; these two respondents may have not understood that 24/7 technical support was for faculty members as well as the students or the respondents were focusing on their own colleges and they may not have the financial or human resources required to support this.

Course Technology Category

Table 14 provides the results of the eighth category Course Technology. The question asked was “Under the category of course technology, please indicate whether you would use the following criteria for pre-evaluating an on-line course.”

Table 14. Course Technology Category Survey Results

Quality Criteria	Use	Most Likely Use	Most Likely Not Use	Not Use	Responses Count
Instructions for technology downloads	70%	20%	10%	0%	10
Audio deliver method	30%	50%	20%	0%	10
Audio transcriptions	44.4%	33.3%	22.2%	0%	9
Video delivery method	30%	40%	30%	0%	10
Video transcriptions	33.3%	22.2%	33.3%	11.1%	9
Tools and media for student activity	44.4%	44.4%	11.1%	0%	9
Total answered question					10
Total skipped question					2

In this category only two of the criteria were or above 50% as being utilized. Therefore, only two of the criteria under this category were considered for the development of the pre-evaluation instrument. It is noted that two respondents completely skipped this category. There were no comments provided in this category.

Accessibility Category

Table 15 provides the results of the ninth Accessibility. The question asked was “Under the category of accessibility, please indicate whether you would use the following criteria for pre-evaluating an on-line course.”

Table 15. Accessibility Category Survey Results

Quality Criteria	Use	Most Likely Use	Most Likely Not Use	Not Use	Responses Count
ADA Compliant	64.5%	25%	0%	12.5%	8
Web pages demonstrate sensitivity to readability issues	87.5%	12.5%	0%	0%	8
Web Pages demonstrate equivalent alternatives to auditory and visual content	44.4%	44.4%	11.1%	0%	9
Total answered question					10
Total skipped question					2

In this category only two of the criteria was on or above 50% as being utilized.

Therefore, only two of the criteria under this category was considered for the development of the pre-evaluation instrument. It is noted that two respondents completely skipped this category.

There were no comments provided in this category.

After reviewing the data several times the researcher began to develop and format a pre-evaluation instrument for determining quality in a distance education course or courses based on the survey results. The document was developed and then sent back to the 43 VCT consortia members for comment. The VCT consortia members were given two weeks to comment on the document. The first email with the document attached was sent on September 16, 2008. After

one week a reminder email was sent. See Appendix C for the first version of the pre-evaluation instrument.

Analysis of Group Review of Pre-Evaluation Instrument to Determine Quality in a Distance Education Course or Courses

Twenty two of the 43 consortia members provided positive feedback in the form of simple statements such as “it looks good,” “I like it,” and “looks good to me; however, there were six respondents that provided the following detailed recommendations:

- Email Respondent #1 noted that there was “one notable omission in the Student Support section: Library Support and Information Resources.”
- Email Respondent #2 had questions concerning course technology. “This (course technology section) seems to assume that some sort of media will be used for each course, and while I think that this is a good idea, we may not be at the point where every course will use supporting media. Also, this does not address the quality or quantity of the media at all, but seems to focus only on its delivery. I realize a form like this can become so large in an effort to cover everything that it can become ineffective, so you may not want to address these items, but as we come to use media more often, these may be issues to consider.”
- Email Respondent #3 had the following comments:
 - “Part I Course Review—‘Course Review’ seems an inappropriate title for this section. Maybe Course Description? Course Overview? Summary? Synopsis? Would it be appropriate to include Technology Requirements here?”

- Part II Assessment Measurements—‘Course Assessment’ is consistent with face to face course’-Is ‘Consistent’ the right word, since on-line courses have unique characteristics and present special concerns? Equivalent to? Comparable to?
- Delete ‘Part’ from I and II above and add it to III-IX.
- Student/Instructor Information—‘Asynchronous Discussion clearly stated for utilization’-Awkward wording. I am not sure what you mean. Maybe:
Asynchronous Discussion Requirements? Or, Requirement for Asynchronous Discussion? ‘Course Interaction requirement clearly stated’. I am not sure what you mean. Interaction with instructor? Students? On-line Content? Student interaction with on-line materials may become important in the near future; interactive tutorials, exercises, games, etc.
- ‘Course Technology—No mention of Video Delivery. Why just audio? If student technology requirements aren’t included in Part I, would it be appropriate to include it here? Suggest including plug-ins and software to be downloaded?
- ‘Accessibility’—Course web pages demonstrate equivalent alternatives to auditory/visual content. Consider: Course Web Pages provide (offer? Serve as? Present?)
- ‘Course Approval (should be IX).’”
- Email Respondent #4 provided the following comments:
 - “Include something on the ease of navigability of the course. Such things as a “Start here” button on the home page and content that is easily found are necessary in any outline course. This prevents confusion by students as they complete readings, assignments, and assessments.

- Not sure if copyright clearances should be included but is certainly a necessary element of the course development and review process.
- The term “clearly” is subjective and needs to be clarified if multiple reviewers will be used. A rubric that includes the elements necessary for each criteria to be met would be a valuable tool and one that would provide necessary guidance to course reviewers.”
- Email Respondent #5 stated “ the coverage is thorough and I am particularly pleased to see support for services included in your instrument.”
- Email Respondent #6 stated “This looks like a great assessment tool, and I hope you consider sharing it with your colleagues in the future.”

After reviewing the comments, the researcher revised the instrument to incorporate the recommendations, however, did not send out to the VCT consortia members for their review and comments on the final instrument. See Appendix D for the revised pre-evaluation instrument.

Semi-structured Telephone Interviews Analysis

The researcher solicited participant nominations for the semi-structured telephone interviews from the entire 43 members of the VCT consortia on January 25, 2008. Thirteen individuals responded with interest; however, only six were interviewed on their experience in developing evaluation instruments for their on-line courses. Seven of the original thirteen individuals were unable to be interviewed and the details are as follows:

- Four had conflicting schedules
- Two experienced changes in their positions and employment titles; therefore, their duties and responsibilities changed, and
- One vacated his/her position.

The four participants who had conflicting schedules were asked for other possible participants to interview; however, they were unable to provide names of other participants or unable to be interviewed. The rationale provided was that there was no one in their departments who could provide the history of their college's collaboration with the Virtual College of Texas and no one else had been participating in the meetings for the SACS Review of VCT and the consortia members. P13 provided the following response:

"I am very sorry that I am unable to participate at this present time. I would like to provide you someone else that you could interview but no one knows our history as well as I do and I don't want you to have the wrong information about us".

Two of the participants changed positions four weeks after agreeing to participate in the semi-structured interviews. After their initial response, this researcher attempted three times each week to schedule an interview with participants 9 and 8 and finally obtained the response that they were unable to participate. P9 responded through an electronic mail message and stated

"Due to a change in my current status and position I am unable to participate in your research. I am currently in the process of hiring another person to perform my previous duties and don't have the time to help you. We at XXXXX college do wish you well and a successful research".

Participant 7 vacated the position two weeks after agreeing to participate in the study and the secretary was unable to provide any information concerning a replacement or who was currently responsible for the department and the report for the SACS VCT Review.

The remaining six participants were scheduled telephone interviews between the months of February and April during the afternoon for at least two hours. It was noted that the afternoon

hours between 2:30 and 5:00 p.m. were the best time to contact them and the best time when they would not be disturbed. It was also noted that the common days for the interviews to be scheduled for Wednesday and Thursday.

On February 5, 2008, one of the consortia members, who did not participate, provided a rationale as to the poor responses and possible poor participation. This consortia member stated that the lack of participation could be due to “colleges being tired of dealing with SACS issues, going through their SACS review or just completing a SACS review.” The consortia member also stated that “those that had elected not to prepare an evaluation instrument for their on-line courses were most likely going to wait until others had completed theirs” and thus were not able to participate. The final rationale provided was due to consortia members being “fearful of making any statements concerning this topic that could later impact them during their SACS review.” When questioned as to why the consortia members would be fearful of negative impacts, this individual stated Texas Tech University had just had an unfavorable SACS review dealing with their curricula and they, the consortia members, were working on their own issues concerning curricula. There was, however, no elaboration on the types of curriculum issues consortia members were dealing with. It became clear that the participants agreeing to the telephone interviews needed to understand that this study was not going to directly report any of the information provided to the Southern Association of Colleges and Schools. The researcher made it an important point to discuss with the interviewee before each interview began.

Additional information concerning the interview participants are as follows:

- Of the original thirteen participants, nine had evaluation documents available on their college website.

- Of the original thirteen participants, twelve responded to the on-line Likert scale survey.
- The final six participants all had evaluation documents available on their college website.
- The final six participants all responded to the on-line Likert scale survey.

The semi-structured interviewee sessions were transcribed and sent back to the interviewees for member checking using their individual electronic mail addresses. Each of the six participants was able to review his/her interviews and send feedback within a week of receiving the transcript. The transcriptions were then reviewed and analyzed for general themes under each question.

The semi-structured telephone interviews averaged 1.5 hours in length with the participants providing some demographics as well. See Appendix A for the semi-structured interview document. The six participants volunteered to participate in the semi-structured interviews and thus there were no deviant cases and no negative case analysis performed. Deviant cases are “those that don’t seem to fit the dominant identified patterns” (Patton, 2002, p. 466) and negative case analysis is “considering the cases that do not fit within a pattern” (Patton, p. 554). The responses provided were the participants expressing their views concerning the questions asked.

Most of the interviewees were either Deans of Students or Directors of Distance Education and their colleges focused on either hosting or providing academic courses on-line. One interviewee stated that his/her college had had experience in offering a technical course for computer science on-line as well. Although there was a range of years of experience with distance education courses, most interviewees fit into the 6 to 10 years of experience range,

while one had more than 30 years of experience with distance education due to the media they had used to offer these courses. Most of the interviewees stated that their colleges had experience with providing distance education courses via the Internet, Interactive Television, Telecourse (Educational Television) and Video; however, one stated that his/her college had only utilized the Internet.

When asked how long their institution had been involved with distance education the interviewees indicated that the number of years ranged from 8 to 9 years. When asked how long they had been part of the VCT consortia the number of years was directly related to the number of years the consortia has been in operation, which is 10 years. VCT was implemented in the fall of 1998. Four of the six respondents stated that their college had begun as hosting on-line courses and then began as providers two to three years later. Two of the six respondents stated that they had began as providers and had begun to be a host for distance education courses two years after being a provider.

The interviewees stated that they had “in-house” training for faculty members who wanted to develop an on-line course and one provided training on-line as well. When asked if they believed that the training was meeting the needs of their faculty, all except one stated that the training was adequate. One interviewee (P6) stated that “there is always room for improvement and every year more tools to assist students and faculty members are available for use to enhance their on-line courses, so, no, we can always improve.”

A discussion of the responses to the specific semi-structured interview questions follows. An analysis of the general statements made is provided along with some of the actual excerpts from the interviews.

Responses to Interview Question Number 1

When asked about their experience in developing an on-line course, the all of the respondents stated that they tried to get the on-line course and the face-to-face as similar as possible, following the guidelines provided by the Coordinating Board and SACS. Four of the 6 had the guidelines and Best Practices from the Texas Higher Education Coordinating Board (THECB) and three of the six began to collaborate with other colleges as noted below:

- P1 “We began by reviewing a form provided by South Texas College in McAllen, Texas. It took two months to develop it.”
 - P2 “We used the THECB Best Practices and also used the SACS *Principles of Accreditation* as guides; many moan and groan about it; however, it was good so that we can see what and where one can improve.”

The interviewees also stated that it was difficult to get buy-in from faculty who were already teaching the course. This need for quality instruction from SACS also deterred any new faculty members from developing on-line classes until the instrument was developed. While there was some contention in their colleges due to this new SACS requirement, in the end “it had to be done.” The time invested in the development of an evaluation instrument ranged from two to six months. Faculty, from all of the six colleges, had different views on what quality was along with the technical staff that assisted them in making the determinations for the criterion for the final instruments used.

In reviewing the transcripts further it was noted that five themes emerged from the semi-structured interviews and they were knowledge/expertise, understanding, encounters with faculty and staff, and what they had to learn to accomplish this task that they had been given.

Under the question of their experience in developing a pre-evaluation instrument to determine quality in a distance education course the participants' conversations discussed their knowledge or lack the knowledge concerning the development of evaluation instrument. While many of the participants were tasked with this project, none of the six knew where to begin. It was not due to incompetence, but due to their of experience and knowledge in this area; they had no experience, no expertise, no skill in developing a pre-evaluation instrument much less one that had to do with defining quality and the criteria to measure it in a distance education course. Six of the participants felt frustrated, and five of them were fearful of failing this task that they had been given.

When questioned further concerning this feeling of frustration and fear, the reason that they felt this was due to their lack of understanding of the project as a whole. All six of the participants that were interviewed were at the meetings held by VCT; however, they still felt that they did not have a clear understanding of what was needed—what they needed to do. These were people who understood the how of developing a distance education course and what a course management system was and how to use the software tools needed for course evaluation by the students based on student satisfaction. All six stated that while they were provided some guidance, it would have been more helpful to have an actual example of what needed to be done and “what it was supposed to look like.” Participant 5 stated it as follows:

It's like baking a cake for the first time, you understand what a cake is, but you don't know what ingredients to make the cake, how much of the ingredients you are going to need or how long to cook it. All you know is that it better taste good. So we know what evaluation is, we know what it looks like due to some of the surveys that we have had to perform but now we need to develop a pre-evaluation

instrument and we don't know what the ingredients are or how they are to be measured. So, of course we are frustrated and fearful.

Five of the participants did not know if this type of an evaluation instrument existed and, if so they would find it and how much would it cost? One of the participants stated that they were able to use one that was being used by a college in South Texas; however, the cost of purchasing one was expensive and it was from the Quality Matters Organization. This participant could not remember how they ended up finding a college that actually had an instrument that they could use, yet they were fortunate that they had something that they could actually "touch and feel" and determine if changes were needed.

The other area of concern under the theme of understanding was the SACS *Principles of Accreditation*. As stated before these participants were aware of the notification sent out on July 14, 2005, from SACS; however, understanding what it meant to have a detailed outline of the review process required by each college as to their 1) status as a host or provider college, 2) compliance certification, 3) a peer review, and 4) a report of the peer review, was a daunting task. When asked if they understood why this was happening, five stated "it's SACS you just do it" and one stated "Would it matter? I still had to comply."

All six had to understand what the SACS principles 3.4.7 and 3.4.12 meant and once they understood this then their task was to determine how they were going to prove that their college was complying. SACS principle 3.4.7 which stated that the college was to ensure the quality of their educational programs/courses offered via consortia agreements and SACS principle 3.4.12 stated that college faculty was responsible for the quality of their curriculum (*Principles of Accreditation*, 2001). All six stated that it was difficult to engage faculty in understanding what they needed to do when they barely understood it themselves. This concerned them for they

wondered what would happen if SACS were to review their efforts and then determine that it was wrong or if it was not what they wanted –how would this impact their college?

All six participants indicated that the entire process of the development of a pre-evaluation instrument was difficult, however, it was a very good learning experience. They had to understand what they needed to do with no previous experience or skill set for this task and begin to improve the way they approved their distance education courses at their respective colleges. All six decided that they would use this pre-evaluation instrument as a tool for faculty to use when developing their on-line courses. Additionally all six stated that they implemented change in the training that they provided faculty which meant those that were performing the training had to be informed on the SACS principles as well. Currently all six believe that this was a very good learning experience for them, however, they would not want to relive it any time soon.

When asked how long this entire process took for them to develop a pre-evaluation instrument for determining quality in a distance education course, they all stated that the instrument itself took about a month to develop, however, it took about 2 to 4 months just to understand the task at hand and get the right people that they needed involved. Once this was done the final instrument and “the training of the faculty and staff was a breeze.”

Responses to Interview Question Number 2

When asked about who was directly involved in the development of the evaluation instrument for an on-line course, two had distance education advisory board committees which included administrators, such as vice presidents of instruction, department chairs, technical staff, and faculty who were already teaching on-line. “Many of the faculty that was already teaching on-line were not happy about the possibility of having their courses changed to meet the new

instrument.” When asked why this was a problem the interviewees stated that “faculty felt that what they were doing was working, and they didn’t want to change what had taken so long to get in place.”

In reviewing the transcripts for the second question of who was involved in the development of the pre-evaluation instrument and how they were selected, three major themes were noted and they were engagement, inclusion, and those interested.

When the participants were asked who was involved in the development of the pre-evaluation instrument to determine quality in a distance education course, all six stated that they knew that they were going to have to engage faculty. The question that they had for themselves, though, was whether it should only be faculty that was experienced in the development of a distance education course or not. The rationale for this thought linked back to the SACS principle 3.4.12 where faculty are responsible for the quality of the course curriculum, and the statement did not specifically state that only distance education faculty were to determine what the quality criteria were to be. The engagement of distance education faculty was not difficult; engaging traditional faculty who taught only face-to-face courses was difficult. Traditional faculty members had to be informed as to why their thoughts on the subject were important. When asked how they managed to engage traditional faculty members, five stated that they just quoted the SACS principle 3.4.12 and the sixth participant stated that he/she explained the fact that having a balanced representation of all faculty members was important. There was some resistance to this task in general, for distance education faculty members as stated earlier already had a preconceived notion that they were going to have to change their distance education courses. It was not that they did not want to improve their courses, it was that many had just gotten the course to function for student enrollment while others stated that they had already

received good end-of-course surveys from students and did not want to incur any unfavorable ratings. All six stated that they had general faculty as well as faculty members that only taught distance education courses.

The other theme that emerged from the semi-structured interviews under this question was that of inclusion. Who else was to be included in this SACS principle task aside from faculty members? Four of the participants stated that in their advisory board they had faculty and staff members from the Information Technology Department (IT) and staff members who trained faculty members on the development of distance education courses. When asked why these staff members were included, the four participants stated that the rationale for this was to begin to determine if they were going to incur any IT hardware or software issues if they added items such as synchronous chat or video to each distance education course. The rationale for having the staff that was going to train faculty present at these meetings was so that changes in the training could begin to be developed. Additionally, they also had to begin to determine how they were going to encourage distance education faculty to be retrained using the new criteria for quality that was going to be used.

Two participants did not have advisory boards, however, they also encouraged and included traditional and distance education faculty to be part of this task along with the IT department. Since distance education departments were responsible for training faculty members, no additional staff members were included.

In general, all of the participants interviewed indicated that the people who were involved in the development of a pre-evaluation instrument were those that were interested in contributing to the accomplishment of this task. The fourth participant stated “It took us about a week to agree on who was going to assist us with this task for we did not want anyone that was going to

cause us any problems and the ones we did pick were interested in this task. We knew that they would also be able to help us encourage faculty to be retrained.”

Responses to Question Number 3

When the interviewees were asked about how the criteria were developed for their evaluation instruments, most stated that they began with the information provided by the Texas Higher Education Coordinating Board along with their own experiences in developing, implementing and teaching an on-line course. Faculty had the experience of what was needed to teach on-line and the technical staff had the experience with technical problems the students had been experiencing. The mixture of these two groups provided many of the interviewees with criteria they would have never thought of. During this time the collaboration of consortia members allowed the news of the Quality Matters Organization and their quality rubrics to spread. One interviewee stated that it was quite intensive and many decided to use only the first couple of rubrics.

The transcripts detailed the process that this group of people went through in order to come to some agreement as to what criteria would determine quality in a distance education course. Four participants stated that it took about one month of meetings to come to a final instrument. The reason was due to keeping the members of this taskforce focused on the issue at hand were as follows:

- P2 “They would begin to go off on a tangent about a certain criteria such as chat and then spend twenty to thirty minutes on what software would be the best to use instead of whether or not chat should be used as a quality criterion!”

- P4 “The IT staff members would interject things like that won’t work with the current system that we have, which would then get everyone riled up and nothing would be accomplished.”
- P6 “The traditional faculty members would forget that we were not talking about a face-to-face course, we were talking about a distance education course. The other issue with traditional faculty was that they did not understand some of the technical terms and we would spend precious time explaining the terms to them only to forget what we were talking about or why we were talking about it!”

When asked if the participants recorded these meetings five stated that they did not have the meetings recorded and one stated that they were not consistent with the recording of the meetings. When asked if they had a systematic method for determining the quality criteria all five stated that they did not, however, they all began with looking at the course syllabus when determining quality criteria. When asked why they began with the course syllabus the statements were all generally the same in that “all courses had a course syllabus and this helped us in thinking about the course requirements in general.”

One participant had a copy of a pre-evaluation instrument that was being used by another college; however, getting their taskforce to agree to use it as it was presented took some time. Their faculty members did not like the pre-evaluation instrument for it was too lengthy and using it as it was without any changes would only discourage any current or future faculty members from developing any distance education courses. They ended up making some changes although the participant could not remember the items that were excluded at the beginning. This participant also stated that since then their pre-evaluation instrument has been improved twice.

Responses to Question Number 4

When asked what they would change or add in their current evaluation instruments, two stated that they were beginning this evaluation in the next six months. Although one stated that making the instrument less intensive was the goal, this would be almost impossible, for developing the first instrument was very difficult and time consuming. The noted responses to this question are below:

- P1 “The addition of faculty office hours, the dropping of students for non attendance or participation.”
- P2 “We have a faculty manual and incorporated the self-study review from the THEB and the Quality Matters Rubric the free version –when it was free. We used all of the rubrics and have added activities, and their assessments. This way there is more than just reading the book, an on-line course must have activities.”

When reviewing the transcripts for this question concerning any quality criterion on the current pre-evaluation instrument that would be changed the one theme that all the participants discussed was continuous improvement. While two stated that they were already looking at changing their pre-evaluation instruments, the issue was going to be selling continuous improvement to the IT and training staff members along with faculty members. When asked why this was an issue, four participants stated that it was very difficult to come to agreement on the current instrument and the only way they were going to get any serious consideration on changing it was to have the changes mandated by an agency such as SACS or The Higher Education Coordinating Board (THECB). However, when the question was posed again as to what quality criteria they would change, the participants stated that they could not think of any at that present time. When asked if they considered continuous improvement important, all of the participants stated that it was. Participant 3 stated “I can see where we might need to change the

quality criteria to include technology changes such as chats that include a web camera, or maybe even the use of avatars in the future, but for now any changes needed would probably be due to changes required from SACS or the THECB.”

Summary of Findings

Since the fall of 1998 when the Virtual College of Texas consortia began operation, there have been many changes to the delivery of distance education courses. With the responsibility for the SACS principle 3.4.12 dealing with quality resting primarily on faculty, many of the consortia members had to incorporate an evaluation instrument to determine the quality of an on-line course. One waited until one was developed and collaborated with another consortia member for the colleges own use and utilization.

The experiences narrated by the interviewees tell of the difficulty that technology has imposed to ensuring that on-line instruction contains quality, and the quality criteria is difficult to determine. It was noted that the first plan of action understood by the interviewees was to align the quality criteria to those of face-to-face instruction.

The college websites provided the documents needed in order to format a Likert-Scale survey with nine main categories along with their related quality criteria. Once the survey was analyzed, a pre-evaluation instrument was developed for the VCT consortia members' consideration. Recommendations for another version of the pre-evaluation instrument for determining quality in a distance education course were given by consortia members. Finally one consortia member also provided the rationale for the lack of participation in both the interviews and the Likert-Scale survey. Chapter V provides the conclusions and recommendations for further study.

CHAPTER V

CONCLUSION AND RECOMMENDATIONS

This chapter offers the responses to the research questions, the researcher's insights in the development of a pre-evaluation instrument to pre-determine quality in a distance education course, and the recommendation provided by the VCT consortia members for improvement. Comments will also be provided concerning the use of the ADDIE model in the development of distance education courses; recommendations for further study are also provided.

Summary of the Study

The purpose of this study was to provide an account of the criteria that were being utilized to evaluate quality in a distance education course by VCT consortia members and to examine the processes used in order to determine quality. This study also considered the possibility of the development of a pre-evaluation instrument to pre-determine quality in a distance education course or courses for the Virtual College of Texas Consortia.

The design of this study was qualitative for “the purpose of qualitative research is to develop an understanding of individuals and events in their natural state, taking into account the relevant content” (Borg, Gall & Gall, 1993, p. 194). The individuals in this study were members of the Virtual College of Texas Consortia, who detailed the events and their experiences leading to the development of an evaluation instrument to determine quality in a distance education course or courses. During the course of this study, it was determined that due to developing an actual pre-evaluation instrument, the research design had emerged and required guidance in the major steps of the educational research and development cycle described by Borg and Gall (1989). The major steps taken were research and information collecting, planning, developing a preliminary form of the product, dissemination and implementation as follows:

- Research and information collecting entailed the literature review for this study, the collecting of documents from the VCT consortia member websites, the Likert-Scale survey data, and the data collected from the semi-structured telephone interviews.
- The forming of a product was the pre-evaluation instrument to pre-determine quality in an on-line course or courses for the VCT consortia members, based on results of the Likert scale survey, the semi-structured telephone interviews, and the comments of the consortia members on the first draft of the pre-evaluation instrument.
- Due to the constraint of time there was no preliminary field-testing of the developed pre-evaluation instrument. The VCT consortia members only provided comments after they reviewed the document.
- The information of the development of a pre-evaluation instrument to pre-determine quality in an on-line course was disseminated to the VCT consortia members.

The methods used to gain this understanding were the documents containing the college's evaluation instrument for an on-line course and semi-structured telephone interviews. Ten out of 43 colleges in the VCT consortia had websites that allowed access to their evaluation instruments and other distance education documents for analysis. These ten documents were reviewed and became the basis of a Likert-Scale on-line survey containing nine categories along with their relevant quality criteria. Once the Likert-Scale on-line survey was analyzed, the results were the foundation for the pre-evaluation instrument to pre-determine quality in a distance education course or courses.

Semi-structured telephone interviews were also conducted in order to understand and extract meaning from the VCT consortia members' experiences in their development of an evaluation instrument to determine quality in a distance education course. Purposive,

convenience and homogeneous sampling methods were utilized. The development of these evaluation instruments was a direct result of the Southern Association for Schools and Colleges *Principles of Accreditation* 3.4.7 and 3.4.12 concerned with the quality of instruction.

An audit trail, member checking and peer-debriefing were utilized in this study in order to ensure trustworthiness. Narrative analysis, content analysis and analytic induction were used in analyzing the data collected.

Research Conclusions

This section will provide the responses to the individual research questions posed in this study. Conclusions are also provided by the researcher based on her interpretation of the findings and the theoretical framework utilized in this study.

Research Question 1

How were the criteria selected to pre-determine the quality of a distance education course by each participating member of the VCT consortium? To determine quality in a distance education course the VCT consortia members utilized 1) the Texas Higher Education Coordinating Board Best Practices Guidelines for a Distance Education Course, 2) The Southern Association of Schools and Colleges Principles for Accreditation, 3) The Quality Matters Rubrics and 4) the collaboration and guidance of other VCT consortia members. The members involved in evaluating these documents for their use in the development of a pre-evaluation instrument have been faculty teaching on-line courses, vice presidents of instruction, department chairs, and technical staff. Their method of determining the actual criteria was based on their experiences with offering and supporting the courses and with the main focus of aligning the quality of instruction in an on-line course with a course offered in a face-to-face classroom.

These actions align somewhat with Simonson's (1999) equivalency theory; however, it was noted that the actions and concerns were not to provide an equivalent educational experience for the students necessarily as a basis to ensure quality instruction was being offered. Instead this indicates that the beginnings for the development of quality criteria for the VCT Consortia members were based on their experiences in the face-to-face classroom. These actions also align with the Vroom (1964) expectancy theory; this theory is based on an individual's motivation to achieve a certain goal which produces a positive outcome. The VCT Consortia members' motivation was to ensure that the quality of instruction was met for the students enrolled in the courses and to meet the SACS requirements.

The alignment of the actions of the VCT Consortia members to Deming's theory of Profound Knowledge is reviewed with each of the four components that are synergistic parts of this theory. At the center of this theory is the leader's understanding of a system (Scholtes, 1999). The VCT Consortia members understand that they hold membership in an organization that is comprised of 43 community colleges residing in the state of Texas for the purpose of sharing their resources so students can have the opportunity to access courses throughout the state. They also understand that as members, their response or lack of response to the SACS *Principles of Accreditation* can impact the future function of the VCT organization; however, their foremost concern is their response and alignment to the SACS *Principles of Accreditation* as an individual college.

The next portion of Deming's theory is variation. Okes and Westcott (2001) state that variation is in all things and variation is to be noted and identified in order to reduce it so that a level of quality can be obtained and maintained. The VCT Consortia members are not attempting to reduce the variation in the criteria they have selected for quality in a distance

education course. Each consortia college is creating its own instrument without considering other consortia members' evaluation instruments for possible adoption; the evaluation instruments are merely reviewed as a basis to begin developing their own evaluation instrument. Variation is being increased and this contradicts Deming's theory of Profound Knowledge for ensuring quality.

Deming's theory of Profound Knowledge also points out the importance of understanding human behavior in an organization for it is comprised of human beings and processes (Swanson & Holton, 2001). Understanding the VCT Consortia and the Consortia members provides the researcher with the knowledge that the selection of quality criteria for a pre-evaluation instrument was completed by some of the participating colleges as individual colleges only. While most of the member colleges have a process and procedure that they follow, they vary. This also increases the variation amongst the consortia members. The VCT Consortia processes were not considered only the processes of the individual colleges.

Deming's final portion to the theory of Profound Knowledge is knowledge. VCT members know how they work and how the consortium works. While the Consortia members could benefit from the knowledge of how each VCT college determined the criteria for quality in their pre-evaluation instruments, this was not considered. Participating VCT Consortia members developed individual pre-evaluation instruments for determining quality in a distance education course without the consideration of what the impact would be to the Consortium as a whole.

Research Question 2

What were the experiences of each VCT Consortia member in establishing the criteria for use in determining quality in a distance education course? The experiences of the participating consortium members in establishing quality criteria were described as being difficult to start,

difficult to obtain buy-in from faculty already teaching on-line courses and this new SACS requirement was deterring faculty who were considering developing and teaching an on-line course. The difficulty in obtaining buy-in, in this researcher's informed assumption, could have been due to the lack of communication from those heading this charge. Additionally, the difficulty could have been due to the varying thoughts and opinions of all the individuals who were involved in determining the quality criteria at each of the colleges. While each individual's contribution in determining the quality criteria was important to the discussion and task, those heading the task may have not communicated the need for all of the parties involved to focus on the importance of a consensus in order to comply with the SACS *Principles of Accreditation*.

The experiences in determining the quality criterion for an evaluation or pre-evaluation instrument by participating VCT consortia members were focused only on their own internal colleges. There were no thoughts or considerations for this instrument to be used by any external colleges or other consortia members. This speaks to the Consortia leaders' understanding the purpose of the VCT organization and this specific task for SACS compliance, yet the communication of that knowledge and understanding to the rest of the consortia members may not have occurred. Consortia members in turn may have not communicated this knowledge and understanding to those involved in the creation of their individual college evaluation instrument, thus the increased variation in processes, procedures, and evaluation instruments throughout the VCT Consortium.

The Development of a Pre-Evaluation Instrument to Pre-determine Quality in a Distance Education Course for the Virtual College of Texas.

The development of a pre-evaluation instrument to pre-determine quality in a distance education course was based on the data gathered from the documents obtained from the ten VCT

college websites. The effort taken by those colleges who were either in a SACS review or had just completed a SACS review is very time consuming and this may have been the reason that there were few colleges that participated. Since these were two new principles concerning the quality of instruction and they included distance education courses, it took even more effort for colleges to comply.

The pre-evaluation instrument to pre-determine quality in a distance education course, was developed from document analysis, the Likert-Scale survey and the semi-structured telephone interviews, was electronically mailed to the entire VCT Consortia; it was given positive remarks and recommendations were provided for the improvement of the current document. This researcher made the assumption that those who participated understood what was trying to be accomplished—the development of one pre-evaluation instrument for pre-determining quality in a distance education course or courses for their use.

Summary of Research Conclusions

Based on the information provided and the data gathered and analyzed, it is clear that determining quality criteria is not easily accomplished due to the differences in and of the decision makers. Faculty who have taught distance education courses have different experiences than those who provide technical assistance. Faculty experiences include developing a distance education course and implementing it. Therefore, they are constantly immersed in that course and gain a sense of ownership. Those who provide the technical assistance in developing and implementing the same course do not have the same sense of ownership for they are assisting in the development of numerous distance education courses and not developing courses as their respective faculty members. Administrator experiences are different as well for they are primarily concerned that all distance education courses their college offers complies with

governing agencies regulations. While these experiences were different they had to come together and focus on the goal of determining and developing criteria that would determine quality in the courses that their colleges offered. The development of a single pre-evaluation instrument for pre-determining quality in a distance education course or courses can meet the needs of the VCT Consortia members for it was developed by compiling all of their criteria for evaluation instruments, the information provided and data gathered from the semi-structured interviews, their responses to the Likert-Scale survey and the incorporation of their comments.

Distance education is increasing and “it holds enormous promise for enriching education” (Eaton, 2000, p. 1). Its history includes the changes in 110 years of change and improvement due to technological advances, yet one of the core debates that continues is in the area of its quality (Twigg, 2001; Simonson, 2004). Despite the fact that there are several areas where quality is measured in distance education, such as the student, instructor, course, program, institution, and accreditation levels, it is not enough for the skepticism to cease.

Research studies concerning distance education and conducted on students, faculty members, and institutions have all been compared traditional face-to-face classrooms to distance education (Meyer, 2002; Twigg, 2001). We are cautioned by Meyer (2002) to remember that these research studies, while valid and important in their own right, are conducted to determine which method is best for teaching students and that “researchers and interpreters of the research are influenced by their values and beliefs and often see what they are looking for” (p. 18). This educational paradigm shift began over 110 years ago with correspondence study and now distance education has changed the academic world.

Recommendations for Further Study and Comments

The recommendations for further study are based on the data gathered and analyzed. The first recommendation is to revise the pre-evaluation instrument developed for pre-determining quality in a distance education course or courses for the Virtual College of Texas and incorporate the comments offered for its improvement. Once revised the instrument should be reviewed by the VCT Consortia members for any final comments. When this is completed, the instrument should be piloted by some of the VCT Consortia members so that the other processes of the educational and research cycle described by Borg and Gall (1989) can be completed and, thus, provide a quality educational product for use.

The second recommendation offered is that when developing a pre-evaluation instrument to pre-determine quality in an distance education course or courses it may be prudent not to consider the equivalent face-to-face course if it exists. The rationale provided is based on different media and technology utilized. It may be more feasible to consider the learning outcomes and how they will be accomplished in an on-line environment for the methods and assessments used in a face-to-face classroom may not lend themselves for use in an on-line environment. Therefore, Simonson's (1999) equivalency theory and Vroom's expectancy theory may be better incorporated if applied to the learning outcomes that the students are to be exposed to. Additionally, it may be important that when developing an on-line course or courses to consider and advise faculty members to apply the equivalency theory to course content; hence, the course content in a face-to-face classroom should be equivalent in a distance education course.

As noted in Chapter I, Deming's Theory of Profound Knowledge deals with the essence of the reduction of variation, understanding human behavior (psychology), knowledge and

understanding of a system (Braughton, 1999). By utilizing one single pre-evaluation instrument to pre-determine quality in a distance education course, the VCT Consortia members would be reducing variation for the entire system and thus improving the quality of distance education courses for the Consortia as a whole and for their own individual colleges.

The final recommendation for further study concerns the area of synchronous chat. The preliminary review of the literature indicates that the use of synchronous chat by higher education is at 31% for the 2006-2007 academic year (Parsad, & Lewis, 2008). Therefore the question to ask VCT members is why they did not indicate that they would use it in a distance education course and why they would not consider it as a criterion for quality in a distance education course. Another question to ponder is if other similar community colleges, not part of the VCT Consortium use synchronous chat and if they would consider it a criterion for quality in a distance education course.

The only comment offered by this researcher is in the continual development and field testing of new instructional models specifically for the distance education course. The work by Hirumi (2002), which is more student-centered, utilizes technologically rich environments and is based on constructivist teaching and learning approaches, is an example of an instructional model that is specifically for the use of distance education faculty when designing their on-line courses. Currently this model does not ensure or measure quality in a distance education course; however, the future models such as this could incorporate quality rubrics.

The participants in this study who were members of the VCT Consortia began—with the original face-to-face classroom syllabus—it seems rational and justifiable to offer a method used to develop and deliver content in face-to-face courses for the development and delivery of content in distance education courses. This researcher takes the liberty of stating that this could

be the beginning point of the development of a distance education course, however, without the traditional face-to-face classroom as a basis.

Implications for Practice

Distance education from its inception has had difficulty in proving its worth and quality to traditional academia faculty and has brought with it a new paradigm of learning for the benefit of the students and the universities and colleges offering the courses. Distance education will continue to increase along with the technological advancements to deliver instruction in higher education. A new study by the Sloan Consortium (2008) indicates that “the most recent estimate for fall 2007, places the number at 3.94 million on-line students, an increase of 12.9 percent over fall 2006” (p. 5). Therefore, as stated in Chapter I, the concept of a single pre-evaluation instrument for pre-determining quality in a distance education course is crucial for higher education. The significance of one pre-evaluation instrument to pre-determine quality in an on-line course for the Virtual College of Texas first and foremost, and for the rest of the colleges and universities in Texas is to control consistency of quality standards in this new era of education. “Without a systematic and comprehensive evaluation, it is hard to see how e-learning (distance education) as an Human Resource Development (HRD) strategy can be developed to ensure the delivery of quality human resources so important to organizational strategy”(Macpherson, Elliot, Harris, & Hoffman, 2004, p.307. It is also difficult to fathom how distance education will break through the image of poor quality without some type of systematic and comprehensive form of evaluation and pre-evaluation. The utilization of a pre-evaluation instrument to pre-determine quality in a distance education course may aid distance education in promotion of its foundational purpose which is to allow remote teaching and learning and HRD

in promoting the value of connecting human beings in a meaningful way through the use of distance education for human resource development (Swanson & Holton, 2001).

Distance education has transitioned from its roots as correspondence study and has kept up with the changes in the educational medium to fulfill its original mission which was to connect the instructor and the student for the purpose of providing access to education to students regardless of their geographical location. This mission has caused much debate with the traditional view of providing education and as with anything new it can be viewed as a threat; however, to others it can be a method to educate our future workforce and our leaders of tomorrow. I take the liberty to quote a student who describes what our purpose as educators are and her words are taken from her eighth grade valedictorian speech that she read on June 2, 2007. Tirzah describes educators as those that have “devoted their lives to the honorable service of passing knowledge from their generation to those of the future, driven to keep education alive, serving as a light amidst the darkness of today’s troubled society. They’ve taught me that intelligence is not solely measured by the knowledge we’ve obtained, but also how we use and apply it in our lives. Education is not simply learning information, but learning from it as well if we allow ourselves that privilege.” We must strive to provide quality in education regardless of how it is delivered, face-to-face or via distance education; the focus should be that the knowledge is transferred, and can be applied by future generations.

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APPENDIX A
CORRESPONDENCE WITH PARTICIPANTS

PARTICIPANT SOLICITATION LETTER

Date

Dear _____,

Allow me to introduce myself, my name is Edna Q. Claus, a Doctoral Candidate at Texas A&M University in the Education Administration Human Resource Development program of study. My area of study is distance education and my interest is in the criteria that identifies quality in distance education programs and/or courses.

I will use semi-structured telephone interviews, document retrieval and an on-line survey to collect relevant data. My request is that you recommend individuals for two groups. Group A are those who are part of the Virtual College of Texas consortium that have complied with the Southern Association of Colleges and School's (SACS) principle requirement 3.4.12 which states that "the institution places primary responsibility for the content, quality, and effectiveness of its curriculum with its faculty" (Commission on Colleges, Southern Association of Colleges and Schools, 2001, p. 23) and have developed a pre-evaluation instrument to measure quality in a distance education course.

The participants in Group B are those that have not yet complied with the SACS's principle requirement 3.4.12.

The worth of this research will be based on the information gathered from the participants and will ultimately benefit Texas colleges and universities. I appreciate your assistance and look forward to your reply and/or any recommendations. Please send me your recommendations for participants for Group A and Group B via electronic mail to the following address

edna.claus@gmail.com or edna.claus@harlingen.tstc.edu providing their name, address and

phone number or by filling out the information in the attached Nomination Form. Your time and consideration in this matter is greatly appreciated.

Sincerely,

Edna Q. Claus
Doctoral Candidate

Enclosure/Attachment:

Information Sheet

Nomination Form

INFORMATION SHEET

The Development and Validation of a Pre-Evaluation Instrument for the Virtual College of Texas to Measure Quality in Distance Education Courses

Introduction

The purpose of this form is to provide you (as a prospective research study participant) information that may affect your decision as to whether or not to participate in this research and to record the consent of those who agree to be involved in this study.

You have been asked to participate in a research study concerning the pre-evaluation of distance education courses for the Virtual College of Texas. The purpose of this study is to determine how the criteria used in the pre-evaluation instrument were selected and the experiences of those involved in the selection of the criteria. You were selected to be a possible participant because your college is listed as member of the Virtual College of Texas.

What will I be asked to do?

If you agree to participate in this study, you will be asked to participate in one of two groups of participants. The first group of participants (A) will be asked to respond to questions in a semi-structured interview, read and revise the transcript of your interview and if possible provide the contact information to obtain a copy of a pre-evaluation document (if used or if exists).

The telephone interview will last for about one hour. Once the interview has been transcribed, you will then be provided the transcript to ensure that the information gathered is correct. You will be provided forty-eight hours to make any corrections or provide comments concerning the transcript. If your community college developed a pre-evaluation instrument (document) proper steps will be taken to request a copy.

Once all of the pre-evaluation instruments have been gathered and analyzed, you will be asked to comment on the criteria selected via an electronic survey. This survey should not take more than thirty minutes to complete.

The **active** participation time for participants in Group A to complete the tasks involved should not take more than a total of two hours and twenty-five minutes; however, this participation time could span over two months.

The second group of participants (B) will review the criteria used in the development of a pre-evaluation instrument (identified by group A) and provide information on the value and possible use to measure quality in a distance education course via an on-line survey.

The **active** participation time for participants in Group B should not more take than thirty minutes to provide their responses to the on-line survey.

What are the risks involved in this study?

The risks associated in this study are minimal, and are not greater than risks ordinarily encountered in daily life.

What are the possible benefits of this study?

The possible benefits of participation will be primarily for Texas colleges and universities for they would be the first to benefit from the experience of Virtual College Texas in development and validation of a pre-evaluation instrument for quality in distance education courses. An additional benefit is the convergence of all the criteria developed into one pre-evaluation instrument to determine quality consistency for use.

Do I have to participate?

No. Your participation is voluntary. You may decide not to participate or to withdraw at any time without your current or future relations with Texas A&M University or the Virtual College of Texas being affected.

Will I be compensated?

This is no compensation for participating in this study.

Who will know about my participation in this research study?

Your participation in this study is confidential. The records of this study will be kept private. No identifiers linking you to this study will be included in any sort of report that might be published. Research records will be stored securely and only the principle investigator, Edna Quintana Claus will have access to the records.

If you choose to participate in this study, you may choose to be audio recorded. Any audio recordings will be stored securely and only the principle investigator, Edna Quintana Claus, will have access to the recordings. Any recordings will be kept for one year and then erased.

Whom do I contact with questions about the research?

If you have questions regarding this study, you may contact Edna Quintana Claus at the following email and phone number.

Email: edna.claus@gmail.com or edna.claus@harlingen.tstc.edu

Telephone: 956-421-2695 or cell number 956-367-2292.

Whom do I contact about my rights as a research participant?

This research study has been reviewed by the Human Subjects' Protection Program and/or the Institutional Review Board at Texas A&M University. For research-related problems or questions regarding your rights as a research participant, you can contact these offices at (979)458-4067 or irb@tamu.edu.

Participation

Please be sure you have read the above information, asked questions and received answers to your satisfaction. If you would like to be in the study, please read and sign the consent form enclosed. If you do not wish to participate in this study please return the consent form with the

“I do not wish to participate” portion checked off. Please use the enclosed self addressed envelope to return the consent form.

NOMINEE SELECTION FORM

In the following table below are the list of faculty members names recommended as possible participants to provide information on the method in which the criteria for the evaluation instrument was developed for complying with the SACS principle 3.4.12 for Virtual College of Texas.

Group A Participants

Nominee	Recommended
Name:	Name:
Address:	Address:
Phone Number:	Phone Number:
Email Address:	Email Address
Nominee	Recommended
Name:	Name:
Address:	Address:
Phone Number:	Phone Number:
Email Address:	Email Address
Nominee	Recommended
Name:	Name:
Address:	Address:
Phone Number:	Phone Number:
Email Address:	Email Address

SEMI-STRUCTURED INTERVIEW QUESTIONS

Participant # _____

Time Started: _____ Time Ended: _____

DEMOGRAPHIC QUESTIONS:

1. What is your position of employment with College?
(If a faculty member ask question number two.)
2. What is your primary area of instruction?
General Education Courses _____
Technical Courses _____
3. Number of year's experience with distance education courses?
0-5 yrs. _____ 6-10 yrs. _____ More than 10 yrs. _____
4. What distance education media have you utilized for instruction?
Internet _____ Interactive Television _____
Telecourse (PBS) _____ Video _____ Correspondence _____
Other _____
5. How long has your institution provided distance education courses?
6. How long has your institution been part of the Virtual College of Texas Consortium?
7. What kind of formal training is provided to faculty delivering distance education courses?
8. Do you feel that the program is meeting the needs of faculty to develop, evaluate and implement quality distance education courses? Why or Why not?

SEMI-STRUCTURED INTERVIEW QUESTIONS

1. Tell me about your experience during the development of a pre-evaluation instrument for determining quality in a distance education course.
2. Who was involved in the development of the pre-evaluation instrument and how were they selected?
3. How were the criteria for the pre-evaluation instrument selected?
4. If there were any quality criteria on the pre-evaluation instrument that you could add or subtract from the pre-evaluation instrument what would they be and why?

APPENDIX B
LIKERT SCALE SURVEY ON-LINE INSTRUMENT

Texas A&M

Pre-Evaluation Instrument Criteria for Distance Education Courses

Instructions: Under each category you will find a culmination of quality criteria that are used by colleges to evaluate their distance evaluation courses. As you provide your responses consider whether you would: 1) Use, 2) Most Likely Use, 3) Most Likely Not use or 4) Not Use in PRE-EVALUATING a distance education course for quality.

CATEGORY	1	2	3	4
COURSE OVERVIEW:				
Course Introduction				
Course Syllabi (Including course contact information etc.)				
Course Prerequisites (Including technology requirements)				
Course Learning Objectives				
Course Assessment Information				
Course Policies and Procedures				
Calendar of Semester Course Assignments				
Instructor Information/Introduction (Autobiography and/or Curriculum Vitae)				
LEARNING OBJECTIVES:				
Course learning objectives clearly stated for the student				
Course learning objectives describe measureable outcomes				
Course learning objectives include how the student will meet them				
ASSESSMENT MEASUREMENTS				
Course Grading Criteria				
Course and/or Department Grading Policy				
Course Assessments that measure the learning objectives				
Course Assessments that are appropriate for the online environment				
Student Self-Check Assessments				
Course Assessment is consistent with face-to-face classroom course.				
RESOURCE MATERIAL				
Instructor Notes provided				
Supplemental Information for course provided				
Course Resource Material provided				
Purpose of the course resources provided				
STUDENT /INSTRUCTOR INTERACTION:				
Asynchronous Discussion (Threaded Discussion)				
Synchronous Chat				
Team Projects				
Individual Electronic Mail Address				
Group Electronic Mail Address				

Audio Conferences				
Interactive Video				
Timely Instructor Feedback				
Student Peer Review (Projects and/or Assignment Postings)				
Netiquette Expectations Provided				
Course Interaction Requirements				
STUDENT/STUDENT INTERACTION:				
Student Introductions				
Asynchronous Discussion (Threaded Discussion)				
Synchronous Chat				
Team Projects				
Individual Electronic Mail Addresses				
Group Email Addresses				
Audio Conferences				
Student Peer Review (Projects and/or Assignment Postings)				
Netiquette Expectations Provided				
STUDENT SUPPORT:				
24/7 Technical Support provided				
Academic Support provided				
Student Support Services provided				
COURSE TECHNOLOGY (MEDIA UTILIZED IN ON-LINE COURSE):				
Instructions for technology downloads				
Audio:				
• Delivery Method				
• Audio Transcribed				
Video:				
• Delivery Method				
• Video Transcribed				
Tools and media to enhance student activity				
ACCESSIBILITY:				
ADA Compliant				
Web Pages demonstrate sensitivity to readability issues				
Web Pages demonstrate equivalent alternatives to auditory and visual content				

APPENDIX C

**PRE-EVALUATION INSTRUMENT TO PRE-DETERMINE QUALITY IN A
DISTANCE EDUCATION COURSE VERSION I**

**Pre-Evaluation Instrument For Predetermining Quality in
Distance Education Course(s)**

Instructions: Use the following table to review a distance education course for the following quality criterion and determine if the course is suitable for delivery at your campus.

Part I Course Review		
DE Course:	College:	Instructor:
A. Course Introduction:	<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable	
B. Course Syllabus:	<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable	
C. Course Pre-Requisites clearly stated	<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable	
D. Course Learning Objectives clearly stated	<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable	
E. Course Learning Objectives describe measureable outcomes	<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable	
F. Course Learning Objectives clearly indicate how they will be met by the student	<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable	
G. Course Assessment Information clearly stated	<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable	
H. Course Policies and Procedures clearly stated	<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable	
I. Course Calendar of Events clearly stated	<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable	
J. Instructor Information (Autobiography and/or Curriculum Vitae)	<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable	
Part II Assessment Measurements		
K. Course Grading Criteria clearly stated	<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable	
L. Course Grading Policy clearly stated	<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable	
M. Course Assessments are appropriate for on-line enrollment	<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable	
N. Student Self-Check Assessments are available and clearly stated	<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable	
O. Course Assessment is consistent with face to face course	<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable	
III. Resource Material		
P. Course Material is clearly stated	<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable	
IV. Student/Instructor Information		
Q. Asynchronous Discussion clearly stated for utilization	<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable	
R. Individual Email Addresses Requirement clearly stated	<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable	
S. Timely Instructor Feedback clearly stated	<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable	
T. Course Interaction requirements clearly stated	<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable	
V Student/Student Interaction		
U. Student Introduction Requirement clearly stated	<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable	
V. Asynchronous Discussion Requirement clearly stated	<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable	
W. Group Electronic Mail Addresses Requirement clearly stated	<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable	
X. Student Peer Review requirement clearly stated	<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable	
Y. Netiquette Expectations clearly stated	<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable	
VI. Student Support		
Z. Technical Support clearly stated	<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable	
AA. Academic Support clearly stated	<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable	
BB. Student Services Support clearly stated	<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable	
VII. Course Technology		
CC. Instructions for Downloads clearly stated	<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable	

DD. Audio Delivery Method(s) utilized clearly stated	<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable
VII. Accessibility	
EE. Course is ADA Compliant	<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable
FF. Course Web Pages Demonstrate Sensitivity to Readability Issues	<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable
GG. Course Web Pages Demonstrate equivalent alternatives to auditory/visual content	<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable
HH. Course Web Pages are accessible via popular web browsers	<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable
VIII Course Approval	
Course Approved for Campus	<input type="checkbox"/> Approved <input type="checkbox"/> Not Approved
Additional Comments:	
Name and Title Of Reviewer:	
Signature and Date:	

APPENDIX D

**PRE-EVALUATION INSTRUMENT TO PRE-DETERMINE QUALITY IN A
DISTANCE EDUCATION COURSE VERSION II**

**Pre-Evaluation Instrument For Predetermining Quality in
Distance Education Course(s)**

Instructions: Use the following table to review a distance education course for the following quality criterion and determine if the course is suitable for delivery at your campus.

Part I Course Overview		
DE Course:	College:	Instructor:
II. Course Introduction		<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable
JJ. Course Syllabus		<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable
KK. Course Pre-Requisites		<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable
LL. Course Learning Objectives Course Learning Objectives describe measureable outcomes Course Learning Objectives clearly indicate how they will be met by the student		<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable <input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable
MM. Course Assessment Information		<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable
NN. Course Policies and Procedures		<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable
OO. Course Calendar of Events		<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable
PP. Instructor Information (Autobiography and/or Curriculum Vitae)		<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable
QQ. Course Navigation and/or tutorial		<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable
Part II Assessment Measurements		
RR. Course Grading Criteria		<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable
SS. Course Grading Policy		<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable
TT. Course Assessments are appropriate for on-line enrollment		<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable
UU. Student Self-Check Assessments are available		<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable
VV. Course Assessment is consistent with face to face course		<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable
III. Resource Material		
WW. Course Material		<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable
IV. Student/Instructor Information		
XX. Asynchronous Discussion clearly stated for utilization		<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable
YY. Individual Email Addresses Requirement		<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable
ZZ. Timely Instructor Feedback		<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable
AAA. Course Interaction requirements		<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable
V Student/Student Interaction		
BBB. Student Introduction Requirement		<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable
CCC. Asynchronous Discussion Requirement		<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable
DDD. Group Electronic Mail Addresses Requirement		<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable
EEE. Student Peer Review requirement		<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable
FFF. Netiquette Expectations		<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable
VI. Student Support		
GGG. Technical Support		<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable
HHH. Academic Support		<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable

III. Student Services Support	<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable
JJJ. Library and Information Resources	<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable
VII. Course Technology	
KKK. Instructions for Downloads	<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable
LLL. Audio Delivery Method(s) utilized	<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable
MMM. Video Delivery Method(s) utilized	
VII. Accessibility	
NNN. Course is ADA Compliant	<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable
OOO. Course Web Pages Provide Sensitivity to Readability Issues	<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable
PPP. Course Web Pages Demonstrate provide alternatives to auditory/visual content	<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable
QQQ. Course Web Pages are accessible via popular web browsers	<input type="checkbox"/> Acceptable <input type="checkbox"/> Not Acceptable
VIII Course Approval	
Course Approved for Campus	<input type="checkbox"/> Approved <input type="checkbox"/> Not Approved
Additional Comments:	
Name and Title Of Reviewer:	
Signature and Date:	

VITA

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Ph.D., Education Administration Human Resource Development; Texas
A&M University, College Station, Texas (2009)

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Brownsville, Texas (1997)

A.A.S, Information Management, Texas State Technical College, Harlingen,
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Professional Experience:

2001- Present	Department Chair, Computer Systems Management Technology, Texas State Technical College, Harlingen, Texas.
2004- Present	Department Chair, Computer Science and Software Development, Texas State Technical College, Harlingen, Texas.
2000-2001	Associate Director, Academic Computing Department, University of Texas at Brownsville, Brownsville, Texas.
1995-2000	Operations Manager, Academic Computing Department, University of Texas at Brownsville, Brownsville, Texas.
1993-1995	Computer Laboratories Supervisor, Academic Computing Department, University of Texas at Brownsville, Brownsville, Texas.

Articles and Conferences:

Claus, E. Q. & Dooley, K. (2005). Quality in distance education: A preliminary review of the literature. In L.M. Morris and F.M. Nafukho (Eds) *Proceedings from 2005 AHRD International Conference*. (426-433). Bowling Green, OH: AHRD.

Claus, E. Q. (2006). Quality in distance education: Exploring the issues and concerns. In F.M. Nafukho, H.A. Chen & C.M Graham (Eds) *Proceedings from AHRD 2006 International Conference*. (899-906). Bowling Green, OH: AHRD.

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