ASSESSMENT OF DISTANCE EDUCATION PROGRAMS

IN THE MONTANA UNIVERSITY SYSTEM

by

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Lawrence John Strizich

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ABSTRACT

The purpose of this study was to examine the practices of faculty members and administrators in the state of Montana to determine how program level assessment for distance delivered programs was being designed and conducted. Data collected for this qualitative study was in the form of transcripts of interviews conducted by the researcher. Participant campuses were selected by the Assistant Montana Commissioner for Higher Education for Distance Education. Participants were the identified with the assistance of campus distance education directors at each of the campuses. The campuses identified are part of the Montana University System, and a fourth campus identified is a community college, administered in part by the Montana University System.

Participants responded to a series of questions posed by the researcher. The transcripts of these interviews were analyzed for common themes, and these themes were then used to describe the methods currently being employed by faculty and administrators actively engaged in delivering distance education programs.

CHAPTER 1

INTRODUCTION TO THE STUDY

The trend of higher education for increased involvement in the distance market is highlighted in the following:

> Increased access to alternate sources of higher education, the public's need for lifelong learning, and availability of new information technology are converging on colleges and universities in ways that go beyond the past limitations of distance education. Ignoring the Internet is no longer an option for universities if they plan to participate in the lifelong learning market (Webb, 2001).

In addition, traditional markets for higher education are subject to unprecedented competition from far distant public universities and for-profit schools offering degree programs virtually anywhere that have the ability to connect to the Internet (Tallent-Runnels, et al., 2006). Institutions will have greater competition from distant schools offering coursework in their traditional marketing regions, and a local market is no longer the only source of new students for institutions willing to offer on-line instruction.

Distance education, particularly Internet delivery, has become so ubiquitous that almost every institution of higher education offers some form of alternative delivery, including video, (both interactive and prerecorded), and Internet or hybrid courses. Based on information provided by the National Center on Educational Statistics (NCES), "During the 12-month 2000–2001 academic year, 56 percent (2,320) of all 2-year and 4-year Title IV-eligible, degree-granting institutions offered distance education courses for any level or audience …" Another 12% indicated they had plans to offer distance education courses within the next three years (NCES, 2003). In a recent survey

conducted by the Sloan Consortium "Over 5.6 million students were taking at least one online course during the fall 2009 term …" (Allen & Seaman, 2010). This level of online participation represents a twenty-one percent growth rate for online enrollments. Nearly thirty percent of higher education students now take at least one course online. More than two-thirds of the responding CEOs of institutions recognized that online programs are strategically important to the institution (Allen & Seaman, 2010).

As a result of this continuing interest in online programs, program-centered studies as opposed to course level studies are needed. To determine how this movement to online programs is being implemented in Montana, this his study focused on the publicly funded Montana University System (MUS). Montana is a relatively small state in population, ranking 44th, but the fourth largest in physical size. The predominantly rural population is spread across 147,000 square miles. In 2006, the state of Montana reported that 90% of the population was identified as having graduated from high school, but only 27% had obtained a Bachelors Degree or higher (State of Montana, 2007). The MUS includes colleges and universities in eight cities across the state, two research universities located in Missoula and Bozeman, four 4-year colleges located in Billings, Butte, Dillon, and Havre, and two stand-alone colleges of technology in Helena and Great Falls. There are three additional colleges of technology collocated and under the administrative control of the larger schools in Billings, Butte, and Missoula.

As the demand to deliver entire degree programs at a distance grows, it becomes increasingly important to ensure that these distance programs are delivered in ways that provide effective learning experiences for the students enrolled. Although research is

being conducted on the outcomes and effectiveness of distance-delivered *courses*, a good deal of research remains to be accomplished regarding distance degree *programs* (Worley, 2000; Tallent-Runnels, et al., 2006). As higher education makes the move from offering stand-alone courses to delivering complete degree programs via distance delivery, research must shift from examining individual course offerings to the combinations of courses that comprise an entire program of study.

Statement of the Research Problem

The problem is that people who fund, attend, and expect outcomes from higher education need to know how faculty members teaching in distance programs and administrators of these programs currently assess their degrees and how they plan to assess program outcomes and success in the future. Higher Education institutions need to work to ensure that the quality of their degree programs is maintained and that the needs of the consumers of higher education are being met by distance-delivered programs. The consumer community includes students, parents, and employers of graduates of these higher education programs.

Statement of the Purpose of this Study

The purpose of this comparative case study is to examine models of distance-delivered program assessment as they exist in successful programs within the Montana University System. The results of this study can be used by Higher Education administrators, campus leaders, and faculty to understand and develop assessment

methods/techniques of program assessment to use for their own distance education programs. Successful programs were determined as such by the Office of the Commissioner for Higher Education (OCHE).

Research Questions

This study seeks to answer the question of how faculty and administrators in the Montana University System are assessing their online degree programs or how they expect to implement program assessment when the maturity of the program reaches a level that enables them to do so. In answering this question, the integration of on-campus program assessment with online program assessment will be examined. If a distance delivered program is integrated into the overall catalog of course offerings from a school, assessment of the distance programs that are a part of the program offerings will be a part of the overall institution assessment. Specific questions to be addressed include:

- How are current program faculty members/administrators assessing instruction in their online and distance degree programs and how would they like to assess instruction in these programs if time and resources would allow?
- How are current program faculty members/administrators assessing student learning in their online and distance degree programs? Again, how would they assess student learning if/when resources allowed?
- How are faculty members in distance and online program delivery supported in developing their courses and programs? While this study focused on program level assessment, the program consists of courses and must be designed as a part

of the program. Further, how are faculty members enhancing their own skills to deliver distance and online programs? These skills may include technical as well as pedagogy and design of courses which comprise the programs.

Research Methodology

This study consisted of a comparative case qualitative analysis using case studies focused on Certificate, Baccalaureate, Master's, and certification level programs. Specific programs were selected for inclusion in the study based upon their reputation for achieving success at distance delivery and/or assessment. The primary mode of data collection was in-depth interviews with program faculty and key administrators.

As reported to the Montana Board of Regents of Higher Education, the Montana University System has eight degree programs offered by the two 'flagship' universities – Montana State University in Bozeman and The University of Montana in Missoula, twenty-five by four-year schools, seven by the Colleges of Technology and six degree programs offered by Community Colleges as shown in Appendix A (Gibson, 2006). This study used information gathered from practitioners of distance delivery in Montana University System to determine the approaches they use or would like to use for assessing distance-delivered programs.

This study focuses on the question of how current faculty members teaching courses in distance programs and department chairs or other administrators involved in the programs are currently assessing their programs. In some cases, the assessment procedures were in the initial stages of development. When participants had both the

knowledge and desire to include assessment methods other than those currently in use, I also queried them about what methods they would like to use in the future. Programs involved in the study included those using online course delivery and those delivered using other distance-delivery modalities such as Interactive Television (ITV). The study focuses on courses that are part of either wholly or substantially distance-delivered degree programs. As a result, individual course assessments, while potentially comprising a contribution to the program assessment, were only considered insomuch as they contribute to the overall program assessment. The researcher conducted interviews with fourteen subjects, using a structured set of questions to guide the discussion. These interviews were recorded and transcribed, then analyzed for dominant themes that addressed the research questions.

As the researcher in this study, I am currently a faculty member and college chair of a four-year university in Montana who has been involved with faculty leadership and assessment for twenty years. Although I have experienced delivering courses in support of traditional degree programs, I have not instructed or assessed programs like those intended to be part of this study.

Definitions

Assessment: The process of alternately measuring some aspect of a process, comparing to desired results, evaluating corrective measures, then re-evaluating the process. (Allen, M.J., 2004a)

Asynchronous Instruction: Instruction in which interaction between student and instructor and among students occurs at different times – using stored lecture, video or message formats. Asynchronous instruction allows students to access and participate in classroom activities based on their individual schedules.

Correspondence courses: The first distance education method, typically involving use of traditional mail to exchange course interactions between instructor and student. This might not include a specific method for interaction among students.

Course Assessment: Performing an assessment on a single course

Distance Learning: Taking classes in locations other than the classroom or places where teachers present the lessons. Distance learning uses various forms of technology, especially television and computers, to provide educational materials and experiences to students.

Distance program: A program of instruction leading to a degree delivered through any combination of distance-delivered methodologies, including interactive television, recorded video and/or audio, online courses or correspondence courses.

Hybrid Course: A course delivered using traditional classroom instruction enhanced or supported by using some form of distance delivery technique.

Hybrid Program: A program of instruction leading to a degree, which is delivered using a combination of traditional, face-to-face coursework and some form of distance delivery – particularly Internet delivery.

Interactive Television: Use of a bi-directional television technology that allows interaction between students and instructor and among students using the

television link. Both the instructor and the students are provided with video/audio links to accommodate instructor and students to communicate from different sites (or locations).

Online Course: A course delivered using the Internet as a primary delivery methodology. An Internet-delivered course typically uses a course management system such as WebCT, eCollege or other commercial product to support administration of all aspects of the course.

Online Program: A program of instruction consisting entirely of courses delivered using Online delivery.

Program Assessment: Assessing overall program outcomes to determine whether changes to a program are necessary.

Program Quality: The degree to which a degree program meets the stated objectives for the program. Particular attention focuses on student learning objectives and the ability of students to demonstrate knowledge, skills, and critical thinking abilities as stated as goals of the degree program.

Student Assessment: Performing assessment of a student's performance – usually for the purpose of assigning a grade or making a placement determination.

Synchronous Instruction: Instruction in which interaction between student and instructor and among students occurs during the same time frame. Generally, synchronous instruction is accomplished in traditional, face-to-face classrooms, using interactive television or using on-line chat sessions.

Transparency: The condition of a public institution that ensures all actions and decisions of the institution are open to public scrutiny.

Assumptions

This study was carried out with the following assumptions:

- Program assessment and continuous quality improvement will continue to be a driving force in U.S. Higher Education.
- Assessment of distance programs poses special challenges to the institutions and personnel responsible for these programs.
- Faculty members have a primary role in the assessment of degree programs and have the primary responsibility for quality of these programs.
- Administrators have a role and responsibility in maintaining or improving program success that includes issues beyond the control of program faculty.

Limitations

Because this study is limited to institutions of the Montana University System (MUS), any generalization to higher education beyond this group is not an expected outcome of this study. The unique characteristics of the MUS include low state financial support, as well as a geographically large, sparsely populated service region. These characteristics encourage the use of distance-delivery programs as an important part of the mission of the Montana University System. The politics of governance and support have had a significant impact on the number and type of program offerings made by each institution, with little or no centralized direction or control.

An additional limitation based on the method of selection of participant campuses. Since these were recommended by a single representative of the commissioner's office, personal bias of that individual may have affected the sampling procedure.

Delimitations

This study will focus on programs offered by institutions of the Montana University System. Interview participants consisted primarily of program faculty currently delivering courses as part of a fully online program and those members of institution administration who oversee these programs. Programs were identified from information held by the Office of the Commissioner for Higher Education (OCHE). Program selections were based on recommendations regarding successful distance programs. Recommendations by the administrator in charge of distance programs at each campus were used to guide contact of faculty in these programs seeking willing participants.

Because the research is being conducted by a supervisor and colleague of faculty members in the College of Technical Sciences of Montana State University – Northern, programs and faculty members in this college were not included in the data-collection phase of the research. The study did not examine private colleges from the state.

Significance of the Study

This study attempts to address the research questions above and may serve to provide a model for distance programs with similar demographics and challenges to

design procedures for distance program assessment and improvement. Though it may not be possible to transfer the results of this study to all distance-delivered programs, the 'best practices' and techniques of this sample of programs will be discussed. This can inform future decisions by schools within the Montana University System and elsewhere based on each institutions specific plans and procedures.

Introduction of the Literature and Conceptual Framework

Chapter 2 of this proposal presents the current literature on standards and practices of program assessment in general, then focuses on assessment of distance learning. Chapter 2 also includes a review of studies assessing distance courses and a review of research regarding distance program assessment.

Faculty and administration responsible for assessment of program quality must take a variety of approaches to determine where program improvements are needed. An evaluation of both the method for distance delivery must be combined with traditional program delivery assessments to determine the best approach at overall program delivery and the quality of the delivered program. Distance-delivery decisions should include some degree of selectivity of students admitted into the program, provide specialized support for students, and pay particular attention to class activities to facilitate learning (Lorenzetti, 2005).

Two models were used in the initial design of the interview protocol: one model developed by the United States Department of Education, and another developed by higher education researchers. *A Test of Leadership: Charting the Future of Higher*

Education (Spellings, 2006) and from guidance provided by a committee on distance education quality (Gibson, 2006b) is the first model that informs this study. The model includes six areas of assessment - Mission; Curriculum and Instruction; Faculty Support; Student and Academic Services; Planning for Sustainability and Growth; and Evaluation and Assessment.

Lockhart & Lacy (2002) propose a different model of distance-delivered assessment that consists of seven areas of program assessment, including; institutional readiness/administration, support of faculty needs, instructional design/course usability, student readiness for distance courses, provision of student services, examining learning outcomes and the retaining students in the program (Lockhart & Lacy, 2002). Within each of these areas of assessment, the authors propose specific questions to be addressed in order to support program assessment. It is of note that the authors of this article studied assessment efforts at two of the institutions included in the present study. Note, too, that the primary lesson learned from the research conducted was to gather data early in the program development process using surveys to determine faculty and student needs, satisfaction and learning outcomes (Lockhart & Lacy, 2002).

The key points to online assessment taken from literature cited above leads to a conceptual framework for distance-program assessment that examines faculty training and support, then focuses on program and student learning outcomes. Elements of this conceptual framework fall to the program faculty to identify and assess either directly or indirectly. Other elements are the province of administration, and may be included in an overall institution assessment plan. One purpose of this study is to examine existing

models of assessment which are currently being used to assess distance education programs. This study focused on how programs are assessed based on program and student learning outcomes. Although assessment activities may take place within courses or involve course level assessments, the overall intent of this study is to examine program level assessment. While course-level assessment adds to the program assessment it is only a part of the overall program assessment process. Program outcomes include things that multiple courses may contribute to, but are a desired outcome based on what the academic program was designed to accomplish. Program outcomes include both knowledge and skill areas that are identified either by professional organizations, industry or by the expert faculty developing the program, and should be used in the program design. An additional factor based on faculty training and support provided to the teachers in the program was examined as well. Both training and support in the use of the technology is important to program success as well as pedagogical approaches. Even experienced instructors may require assistance in the new modality.

Chapter Summary

The use of distance education to deliver entire programs of study leading to a college degree is becoming more and more prevalent in American higher education. Additionally, the requirement by those who fund and depend on higher education to demonstrate accountability – by assessing the quality of degree programs - is also increasing. This comparative case study examined assessment practices for higher education programs delivered entirely using distance learning technologies.

Chapter 2 of this proposal reviews literature on current methods of assessment, assessment of distance education courses and features of distance delivery that facilitate assessment. It concludes with a review of current research of distance programs.

CHAPTER 2

LITERATURE REVIEW

Introduction

The people who fund, attend, and expect outcomes from higher education need to know how faculty members teaching in distance programs and administrators of these programs currently assess their degrees and how they plan to assess program outcomes and success in the future. Higher education institutions need to work to insure that the quality of their degree programs is maintained and that the needs of the consumers of higher education are being met by distance-delivered programs. Consumers include students, parents, and employers of graduates of such higher education programs.

The purpose of this comparative case study is to examine practices of distance-delivered program assessment as they exist in successful programs within the Montana University System. This study seeks to answer the question of how faculty in the Montana University System assess its online degree programs and how they expect to implement program assessment when the maturity of the program reaches a level that enables them to do so. The delivery of distance programs is becoming (or has become) an integral part of the programs offered by Montana institutions. As such they must be considered by stakeholders and accrediting bodies as part of the overall evaluation of our programs and institutions. In addition, a comparison of assessment methods between the two modes of delivery, distance and face-to-face, may be identified and best practices for assessment of distance-education programs in Montana will be articulated.

The specific research questions for this study are:

- How are current program faculty members/administrators assessing instruction in their online and distance degree programs and how would they like to assess these programs if time and resources would allow?
- How are current program faculty members/administrators assessing student learning in their online and distance degree programs? Again, how would they assess student learning if/when resources allowed?
- How faculty members or administrators who are engaged in online and distance degree programs determining whether administrative and student support services are adequate to support a quality educational experience for students?
- How are faculty members in distance and online program delivery supported in developing their courses and programs? Further, how are faculty members enhancing their own skills to deliver distance and online programs?

This chapter will begin with an examination of the elements of the conceptual framework that will be used as a starting point for the investigation. A review of research literature will follow this discussion. Literature reviewed for this project focuses on four primary aspects of higher education assessment. First, general program assessment is reviewed in order to determine the techniques and methods used in program assessment for traditional programs in higher education. Then, aspects of distance learning that lend themselves to alternative strategies of assessment are described. Next, distance education course assessment is discussed as it exists in the current literature. Finally, a review of

distance education program assessment is presented. This research was drawn from books and journals of education research and professional journals particularly focused on distance education.

Research on the quality of academic programs in Higher Education has been conducted since the 1940s. As a result, the volume of literature is extensive. Literature regarding assessment of course quality in general and distance education courses in particular was examined. Research examining the effectiveness of distance courses in meeting educational objectives, and comparison studies – those looking at how well distance offerings perform compared to similar or identical courses offered in traditional ways - are both included.

For the purpose of this review, distance education courses will be considered to include all methods of distance delivery offered within the Montana University System – including correspondence, Internet courses, Interactive Television (ITV), pre-recorded video, and hybrids of any combination of these delivery modalities.

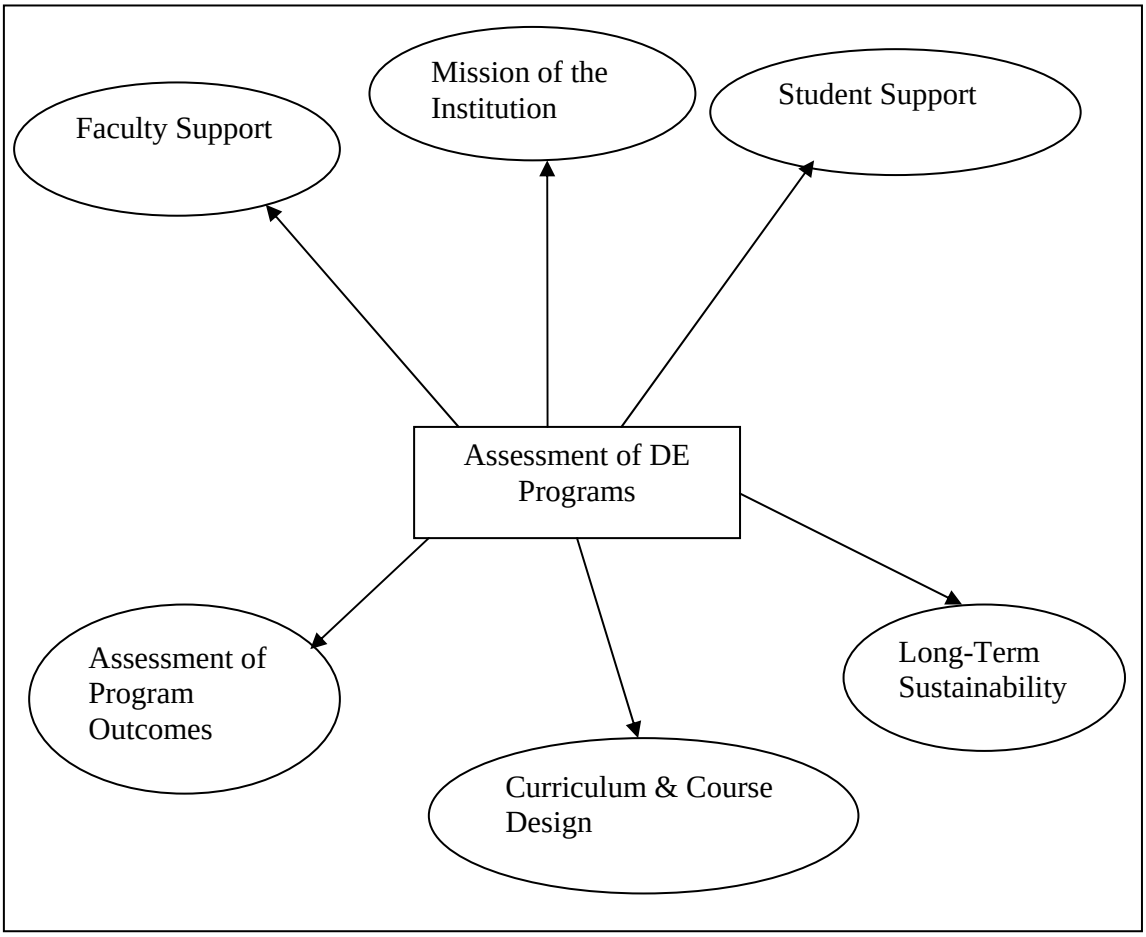

Figure 1. Conceptual Framework.

This study will initially draw upon a conceptual framework (figure 2) consisting of elements drawn from literature (Lockhart & Lacy, 2002); from initiatives being promoted by the U.S. Secretary of Education as stated in her report *A Test of Leadership: Charting the Future of Higher Education* (Spellings, 2006); and from guidance provided by a committee on distance education quality (Gibson, 2006b).

As part of the national effort to assure quality in Higher Education, the United States Department of Education (DOE) has begun collecting information from accrediting agencies to aid in the development of standards for assessment of Distance

Education programs. In this effort, the DOE has identified a number of characteristics that will be examined by accrediting agencies to identify effective distance programs. In a report titled *Evidence of Quality in Distance Education Programs Drawn from Interviews with the Accreditation Community*, published by the U.S. Department of Education in March 2006 (Gibson, 2006), the Department provides a response to the Government Accounting Office (GAO) regarding how distance programs are being evaluated. In addition, the DOE will provide to the GAO any findings that might direct development of standards for assessment. The DOE model includes six areas of assessment: Mission; Curriculum and Instruction; Faculty Support; Student and Academic Services; Planning for Sustainability and Growth; and Evaluation and Assessment. Within these areas, general quality indicators, as well as "red flags" for quality are identified.

Based on this model, institutions engaged in distance education should address some aspect of their missions in implementing these programs by increasing access or reaching underserved areas or populations. As with accreditation requirements, these mission requirements are unique to each institution, they are developed and defined by local governing boards, faculty, and administration.

For curriculum and instruction in distance education, institutions should adhere to the established curriculum review and faculty governance process. The planning and evaluation process for distance programs should reflect the planning and evaluation for regular course offerings. Support of faculty in delivering distance programs, including scheduled faculty training and the use of common tools for development of online course

offerings must be an aspect of distance education programs. Long-term scheduling of course offerings must be an inherent part of support for distance students. The opportunity for interaction between faculty and students and among students, already identified as a critical factor for successful distance education programs, must be provided.

Faculty support is an important evaluation criterion for ensuring that distance education is approached in a systematic manner. Training of faculty in the use of technology, as well as the pedagogy needed for distance courses, must be an integral part of an effective distance program. As previously noted, merely "porting" courses from traditional instruction to an online format is a very ineffective method of developing distance courses. Technical assistance in the form of instructional design expertise should be available to aid faculty in the creation and improvement of course offerings.

Students enrolled in distance education programs require the same or similar support as traditional, on-campus, students. Institutions must prioritize the method of offering and the availability of student support services and general advising for their distance learners. In addition to these regular student services, a recommendation to provide tools for students to self-assess their ability to succeed in distance courses should be offered, as should assistance in learning and troubleshooting the delivery technology. A particular criterion is in the area of library support services. Students must have access to library resources and must have training to utilize these online library services and hands-on support to have questions answered when difficulties arise.

A continuous improvement process for evaluating the institution's performance in delivering distance instruction and improving this performance must be an integral part of distance programs. Program outcome assessment for distance programs, as for traditional programs, must be a part of distance programs (Gibson, 2006).

A seven-component model for assessment of distance education programs presented by Lockhart and Lacy (2002) includes elements of institutional readiness, faculty services, course design for the delivery methodology, readiness of enrolled students, provision of student services, attention to the learning outcomes of the distance program, and retention of students in the program. Information from these seven components of distance programs informs decision-making with the goal of quality improvement. A variety of survey instruments and other assessment techniques are cited as being used successfully to provide ongoing assessment information for distance programs at one Montana school (Lockhart & Lacy, 2002).

Higher Education Assessment in General

Assessment generally consists of a process of measurement and analysis. The term "assessment" has been both a term and a concept that has had increasing importance in the world of higher education. In general, assessment is a means of documenting that institutions are doing what they say they do and that students who complete their programs attain the expected goals (Walker, 1999). However, assessment of an institution, program, or course is necessarily limited by the statement of educational goals and the method of measuring those goals. "Since we can't normally measure everything

that counts, we can be sure that what will count is what we choose to measure" (Shulman, 2007).

Program assessment of student learning can be broken into six basic steps for any program assessment effort. These steps include:

1 – Develop learning objectives.

2 – Check for alignment between the curriculum and the objectives.

3 – Develop a plan for assessment.

4 – Collect the assessment data.

5 – Use the results to improve the program.

6 – Routinely examine the assessment process and improve where needed.

7 – Repeat the process (Allen, 2004a).

Program assessment includes the use of tools, including measures taken as part of class assessment and those measures take separately, intended to measure the overall learning achieved in programs, rather than in individual courses. These tools include:

- Pre-test/post-test strategies.
- Comprehensive examinations.
- Course and final exam grades.
- Student portfolios.
- A capstone project.
- Performance on standardized examinations, including licensure examinations (Palomba & Banta Trudy W., 1999)

Assessment methods generally fall into two categories – direct and indirect assessment methods (Allen, 2004). Direct assessment methods draw information directly from the student and their work products. These methods may include using published or locally developed tests, embedded assignments and course activities, competence interviews, student portfolios, or collective portfolios (Allen, 2004b). Indirect assessment techniques gather information external to the student and education process and focuses on graduates, employers, or other stakeholders who have knowledge of the product – the program graduates. Indirect techniques include the use of surveys, interviews, focus groups, or reflective essays (Allen, 2004c).

One important approach to assessing the effectiveness of any method of college education is determining if the skills, knowledge, and overall preparation of graduates meets the expectations of the graduate's future employers. This approach can be done using indirect techniques. These assessments might range from basic technical preparation in knowledge and processes to include skills like writing, speaking and listening, critical thinking and decision making (Palomba & Banta, 1999).

Performance or portfolio assessment provides a powerful tool for assessment of programs that incorporate a complex assortment of skills and knowledge areas. A properly crafted project or portfolio allows the student being assessed to combine knowledge gained from an entire program of courses into a single product for evaluation by faculty members, outside agents, professionals in the field, or a combination of these groups. Portfolios are used to demonstrate creative or critical thinking skills, problem-solving and decision making while accomplishing a project that closely or actually

simulates challenges typically faced by a practitioner in a profession or field. These portfolios serve as an important tool for assessing both traditional and distance programs (Palomba & Banta, 1999).

A capstone course is a course specifically designed as the culmination of an academic sequence, which should lead to a degree. A portfolio is a collection of "artifacts" assembled over the entire educational process and sequence of courses to provide longitudinal evidence of the process of change and growth in the program as a result of the curriculum. A portfolio's content and quality are judged based on criteria established by faculty members (Palomba & Banta, 1999; Allen, 2004b).

A natural reaction by some teachers to the question of assessment is to use a test. Assessment strategies using both comprehensive commercial test instruments and specialized, locally prepared examinations have been proven to be effective. The drawbacks include the cost of purchasing instruments, and difficulty in developing or selecting appropriate, reliable tests that address the quality of teaching and learning in a program (Allen, 2004b). Some professions, including nursing, engineering, and accounting require comprehensive licensing examinations as a threshold to entering the field. The results from these licensing exams might prove useful in assessing program effectiveness. Classroom assessments including techniques to measure: course-related knowledge and skills, attitudes, values, and self-awareness of students, and assessment of student reactions to the objectives of course instruction including all aspects of teaching. Documentation of these classroom assessments, as well as determining the meaning or

relevance of results, poses a challenge to the assessment practitioner (Palomba & Banta, 1999a) (Allen, 2004b).

In addition to assessing student learning in coursework, assessing student development – or maturation and other skills and knowledge that college adds to student development that are not discipline-related - poses an additional challenge (Kuh, Gonyea & Rodriguez, 2002). This student development includes a number of desirable skills, knowledge, competencies, beliefs, and attitudes typically cultivated during a college career. These include a great number of attributes expected by society and by employers that are difficult to quantify, such as critical thinking, cultural diversity, and problem-solving abilities, as well as the ability to apply the technical skills and knowledge learned in college to practical problems, all of which can be expected in professional practice. These abilities might even extend to include aesthetic sensibilities, spirituality, and civic responsibility (Kuh, Gonyea & Rodriguez, 2002). In evaluating program assessment, three questions emerge:

1. What aspects of student development are being assessed and how?
2. How are student development assessment results being used to improve policy and practice?
3. How are student development assessment results being used to improve the assessment process itself?

Current trends in the U.S. Department of Education policy and resulting changes in standards and practices by the regional accreditation agencies will have significant affects on programs at every level of post-secondary education (Spellings, 2006). Higher

education administrators are designing assessment programs to ascertain the quality of programs throughout the country. These standards will require that all methods of program delivery are subject to similar standards of quality assessment. These standards will have important implications for distance programs, as many of the delivery methodologies are relatively new and subject to continuing evolution. Assessment of these programs is equally important to ensure quality.

An indication of efforts by the U.S. Department of Education to hold U.S. public higher education accountable, the Secretary of Education established a panel to devise a policy statement to guide the future of higher education. The Spellings Report (Spellings, 2006) cites several important factors that will guide the development of all higher education in the United States over the next few years, and will surely affect the actions of accreditation agencies. These factors include access, cost and affordability, financial aid, learning, transparency and accountability, and finally, innovation. In the learning category, the Spellings Commission finds that: while colleges are focused on getting more students into college, literacy among adults is decreasing among those with a college education; a large proportion of college students are taking more than six years to complete a Bachelor's Degree; there is a significant disparity in performance among ethnic groups; and employers have voiced dissatisfaction with the tools that college graduates bring to the workplace (Spellings, 2006).

Assessment of Distance-Delivered Courses and Programs

While distance education poses some challenges for assessment, there are some benefits as well – particularly for online programs. Because the medium is digitally recorded, management, collection, and transfer of information is more efficient than traditional classroom assessment (Comeaux, 2005). Students have unlimited access to course materials, and the ability to monitor and track student progress is automatically documented as part of this digital record. It is possible to design discussion activities that increase student participation and provides greater emphasis on student thought and reflection. In these discussion activities, there is opportunity for greater feedback to students both from the instructor and from other students. Students enter online discussions with a greater feeling of peer inclusion in the discussion forums. Online testing and quizzes can be devised to provide tremendous feedback to the instructor regarding student progress and understanding. Each of these benefits of assessment enables multiple measures of student learning, thereby providing powerful tools for assessment (Comeaux, 2005).

A part of the assessment of online learning includes the potential for automatic assessment of individual student performance. Using a comprehensive structure and algorithm, the time that students spend viewing individual web pages, as well as responses to inquiries about the subjects presented which may determine navigation options for them and be used to assess student performance. This approach may be used as a method of assessing online courses. By utilizing a complex array of indices,

software can determine the navigation structure presented to the student. Students may be forced to review subjects determined by the software to be weak. Ideally, this software would also provide individualized examinations, and probe for deeper understanding of subject matter. Measuring the student's time on task, the degree of interaction the student has with course content, and requiring students to visit specific objects (pages) within the course structure, the course material can be structured to provide far superior personalized instruction than what is typically available in University settings (Chang, 2002).

Distance-Delivered Course Assessment

Assessment of online course offerings at the E-college Wales (ECW) provides a good background for distance education assessment. Higher education in the United Kingdom (UK) is required to use a quality assurance approach to higher education programs, which is starkly different compared to U.S. higher education. A rigorous national process for quality assurance in higher education, involving institutional faculty and staff as well as a government Quality Assurance Agency (QAA) is a requirement for UK higher education and has been extended to include distance offerings. The ECW campus has developed a process for assessing distance learning courses in keeping with the process used in non-online courses.

ECW uses a four-phase Quality Assurance (QA) process:

1. Ensuring coherence of the relevant course.
2. Assuring the quality of the materials to be posted on the web.

3. Assuring that students test the web-based materials in some way prior to implementing the materials in online courses.
4. Ensuring that modifications are made as indicated in these steps.

In the review of this process, three issues were highlighted: the pedagogic model must be appropriate to the medium, the material must be screened for coherency, and support for students must be in place.

Student interaction in a classroom setting is an important contributor to student learning and helps establish a learning community. In a study, researchers compared the Discussion Area and Chat Room features present in online course management systems like WebCT, with regular class discussion that occurs in Interactive Television (ITV). The process included use of an 'exchange structure analysis' which is derived from a scheme called DISCOUNT. The roles of participants (questioner, respondent, etc.) are enumerated to determine a quality rating of the exchange. In research conducted in South Africa, results show the discussions that take place in the two methods of WebCT discourse were superior than those that occurred in ITV in terms of facilitating a 'constructivist and active learning community' in distance learning (Mash, et al., 2005).

Comparison of Distance and Traditional Course Outcomes

For some time, researchers have reported at length about studies that show that there is no significant difference between online and traditionally delivered instruction in higher education (Edwards & Fritz, 1997; McFall & Freddolino, 2000; Harrington, 1999; Freddolino & Sutherland, 2000; Coe & Elliott, 1999; Diaz & Cartnell, 1999).

Much of the research focuses on comparing technology-based teaching methods to 'traditional' teaching methods – implying that the traditional methods provide a norm from which teaching/learning should be measured and is also considered to be universally successful. The process of teaching and learning in higher education is the subject of ongoing study and change. The important issue is not technology, but rather the teaching-learning methods that are at the heart of the question of distance-education success. A study of the best teaching-learning strategy for specific instructional goals, and what use of which technology and associated methods will best support the strategies is key. "… technology should be the servant, not the master in the classroom" (Worley, 2000, pp. 93-103).

Included among studies of distance versus traditional instruction is one that provides a definition of a first through fifth generation of distance education (or draws these definitions from literature). One study examined 688 independent effect sizes from the 232 reports included in the study – 630 were excluded based on failure to meet all inclusion criteria for the study. The result of this meta-analysis is that the researchers are unable to discern significant differences between the two modes of course delivery, except for a small but significant difference in achievement experienced in synchronous Distance Education. "… DE works extremely well sometimes and extremely poorly other times …" (Bernard et al., 2004). Another part of the research examined the overall quality of the research conducted in these 232 reports. In this review the authors report that the quantitative research practices used to examine and report findings about Distance Education were found "to be of poor methodological quality and severely

lacking in critical information about research practices" (Bernard, Abrami, Lou & Borokhovski, 2004). Although this information does not contribute directly to knowledge about how effective distance learning is, it clearly identifies the need for quality research in the area.

In a detailed review of research published in the latter half of the 1990s, which purported to study the differences in performance of students in distance-learning programs compared to students completing similar education in a traditional face-to-face format, Phipps and Merisotis report that "… there is a relative paucity of true, original research dedicated to explaining or predicting phenomena related to distance learning" (Phipps & Merisotis, 1999).

Most of the studies reviewed indicate that regardless of the distance education method used, the distance courses perform favorably with classroom-based instruction, and they achieve high marks in student satisfaction. However, the quality of the research conducted is questionable, which tends to mute the strength of the comparison statements. In particular, the Institute for Higher Education Policy (IHEP) report indicates that the original research reviewed had a number of problems. The research did not control for extraneous variables, did not use randomly selected subjects, used instruments of questionable validity and reliability, or did not control for the attitudes of either faculty or students.

Further research is necessary to 'fill the gaps' of the research conducted to this point. Most notably, this past research focused on individual course performance rather than on the outcomes from an entire program of study conducted using distance

technology. In addition to several specific questions about distance learning, Phipps and Merisotis criticized the research they had reviewed for not including a theoretical or conceptual framework (Phipps & Merisotis, 1999). Although course assessment may be an important element of program level assessment, it is necessary to build the case that program outcomes are accomplished, possibly by using assessments from multiple courses that contribute to the overall desired learning outcome.

Assessment of Distance Education Programs

In the delivery of entire programs, there are a number of changes that take place in students. One important area of student development is critical thinking skills. Several instruments for measuring general critical thinking skills have been developed and validated, including the California Critical Thinking Skills Test (CCTST) for measuring general critical thinking skills, the California Critical Thinking Dispositions Inventory (CCTDI), and the Holistic Critical Thinking Scoring Rubric (HCTSR) (Astleitner, 2002). A study of critical thinking outcomes for students determined that some forms of distance delivery of instruction are superior to that provided using traditional classroom instruction (Astleitner, 2002).

Educator attitudes and opinion may play a role in assessment of distance education quality. Research measured the faculty perceptions of Interactive Television (ITV) instruction. Researchers used a survey to gather responses from faculty teaching in education, nursing, or business programs. In the analysis of these responses, a vast majority of participants possessed a terminal degree and all were very experienced, both

in the number of years of teaching experience and in using the ITV media. The study assesses a wide range of preparation and release time provided by institutions, as well as course size. Most respondents indicated that they were able to adapt their personal teaching styles to the new media with ease, though the presentation method using a document camera restricted the delivery options. Generally, the study concentrated on how the faculty members felt that the ITV media affected their ability to teach and the student's ability to learn. An important element that was mentioned but not examined was the loss of productive time to as it correlates to overhead – administration and other activities not directly related to teaching and learning that impact the ability to conduct class (Seay, Rudolph & Chamberlain, 2001).

There have been benchmarks developed to be used in the evaluation of distance learning, particularly on-line learning programs. One study result produced 35 benchmarks, including institutional, course development, teaching/learning, course structure, student support, faculty support, faculty evaluation and assessment. These benchmarks were developed for the National Education Association and Blackboard Inc. as a contribution to the discussion of quality and the on-going assessment of online programs. Particularly relevant to this study is that programs must assess educational effectiveness and the teaching/learning process using several methods while also applying several specific standards (Phipps & Meristotis, 2000).

One approach to assessing online programs is to review Web-based Learning Environments (WBLE). The current state of using the internet to provide pedagogically sound learning experiences for students, while incorporating entirely web-based methods,

has been examined by reviews of these learning environments. There is an expectation that the unique abilities of the technology will substantially contribute to the teaching and learning processes. These features include the ability to manipulate information, facilitate communication, and provide a 'creation environment' as well as provide a medium for the delivery of instruction. Researchers have examined the descriptive and pedagogical features of a large number of websites to determine the characteristics of each (Meiduser, Nachmias, Lahhav & Oren, 2000).

One difficulty of assessing the quality of distance programs rests with the ability of students to complete courses at a variety of distance institutions. Traditionally institutions carefully guard the quality of programs by ensuring that transfer credits meet the basic level of proficiency necessary for the program and/or institution. This requirement will prove more difficult as the definition of the 'unit of knowledge' is defined and redefined by distance providers. The author used the term 'unit of knowledge' to denote how institutions measure progress toward a degree. Typically, schools use a course, or number of credit hours to determine progress toward degree completion. Bers suggests that instead of credit hour or 'seat time', schools may use a series of examinations, or performance measures to track progress. A student may learn the skills or knowledge to pass the examination through taking a course, or may learn it in some other way. Once the need to track by course credit is changed, a student need not find an exact match for a course at the degree granting institution, but may use whatever path is expedient and effective to meet the course learning outcome. It may become unnecessary to identify a semester credits worth of instruction provided by a distance

provider in any given topic, and instead weave the varying course designs by outcome into a program of instruction leading to a degree (Bers, 1999).

In response to the difficulty of determining the learning level attained by students taking course work in the distributed 'world wide' environment, several exclusively online universities have taken a moderately radical 'assessment only' approach to higher education. Some students at Western Governors University are reported to earn a degree by completing a series of learning outcome examinations instead of registering for traditional courses (Carnevale, 2001; Bers, 1999). The competency-based credential delivered through WGU is premised on the assumptions that: skills or knowledge identified as being necessary for mastery of a field can be defined as competencies for that field, such competencies can be demonstrated by completing assignments, and students can demonstrate the necessary mastery of a competency in a number of ways, including completing examinations, or performing a practical demonstration of those skills (Bers, 1999). At University of Phoenix Online, students take pre-tests and post-tests. These tests are used to measure actual student learning. Carnevale notes that "… distance educators are still in the process of proving that they can accurately assess anything" (Carnevale, 2001).

These distance programs rely on a combination of examinations produced in-house, along with standardized tests purchased from testing companies like ACT and Educational Testing Service (ETS). However, these radical approaches to distance education are not without critics. Representatives from the American Federation of Teachers (AFT) speak to the value of interaction between students and teachers, both in

and out of the classroom. The concern is that degrees based on student passing tests "… reduces higher education to nothing more than job training" (Carnevale, 2001). To traditional higher education practitioners, this practice ignores work done by historical guides to higher education like Rudolf and Terrenzini (Carnevale, 2001).

Much of what is reported has the effect of helping to build a model for distance education in higher education, including testing to show ability in a variety of 'domains' – including writing, general education and computation. The University of Phoenix program uses tests consisting of about 100 multiple-choice questions. A representative from the New England Association of Schools and Colleges (NEASC) observes that this particular system is more student-focused and outcomes-centered than traditional higher education. Lee R. Alley of Montgomery College in Rockville, Maryland observes that current efforts in distance education are "… turning out to be the R&D lab of higher education, those principals of learning science pretty much apply in any domain" (Carnevale, 2001).

Review of Current Literature

A review of the literature on higher education distance program assessment finds that some additional research, focused on programs as well as on course level assessment has continued into the current practice. In one article on 'Transformative Assessment', the author discusses the practice of assessment in higher education, but cites the opinion of Stephen Ehrmann, vice president and director of The Flashlight Program that transformative assessment is particularly important to distant education. The Flashlight

Program (www.tltgroup.org) provides resources for implementing transformative assessment. The author separates assessment activities into "administrative" – using data that is easily obtained with a focus on quantity, "progressive' – broader assessments looking at students' critical skills, and including an interdisciplinary context, and "transformative" – assessment which focuses on multiple dimensions and sensitive to the student's own experiences and context (Lorenzetti, 2004)

The Sloan consortium has continued to gather and publish information about online education across the United States, indicating that surveys have indicated that 87.0% of Public Institutions report that the economic downturn has increased demand for existing online courses and programs, and 76.5% report the demand for new online courses and programs. (Allen & Seaman, 2010) In particular the report Learning on Demand – Online Education in the United States, 2009 indicates that 70% of public institutions report that faculty receive training to learn how to teach online through internally run training courses, with 62% report that an informal mentoring program exists for support of faculty. Through all of this a slight increase – from 57.2% to 67.5% of institutions report that Learning Outcomes in online education are the same or better than learning outcomes for face-to-face courses from 2003 to 2009 (Allen & Seaman, 2010.)

In another report from the Sloan Consortium, Online Learning as a Strategic Asset the authors cite a specific instance of using an integrated Planning approach to online learning occurring at the University of Montana. Citing the revision to the Montana Board of Regents strategic plan, (MT BOR Strategic Plan, Revised 2008,

http://mus.edu/data/strategic_plan.asp) that recognizes the inefficiency of the Montana MUS approach to online learning, the provost's Academic Planning Council, developed a strategic plan for increasing the capacity and quality in online learning at the University of Montana. The plan laid out a detailed framework to support the following goals:

- Modify and improve faculty development and training.
- Improve student life cycle issues and support.
- Expand the Scope of selected degree programs.
- Develop marketing strategies for UMOnline.
- Implement 'careful and continual' examination of financial and resource investments.

The Sloan Consortium has designed a survey of institutions seeking many of the answers targeted by this study. In particular they are establishing baseline information on Faculty Incentives and Support, Student Live Cycle Issues, Senior Administration leadership and Support, Academic Quality and Effectiveness, Administrative and Financial Models and Technology in Online Learning (McCarthy & Samors, 2009.)

An example of course-level assessment of Student Learning in online courses recommends using activities that replicate something the student will do in his or her profession, termed authentic assessment, and using frequent, small assessments that will require the student to access the course two or three times per week. While outcomes assessment in a single course can aid in program assessment, the article makes no attempt to address programmatic assessment (Osika, 2006).

One article tied the development of university online courses based on learning objects – a theme identified during this study. The article provides a solid framework for the development of coursework based on learning objects, and cites the challenges and successes in finding available repositories of online learning objects (Wilhelm & Wilde, 2005)

Summary

Generally, research conducted to date on higher education focuses on individual course assessment rather than a body of courses leading to a degree that are delivered using distance techniques or technologies. Program assessment is critical to public higher education institutions to assure those paying for the education that quality is being maintained while simultaneously expanding degree availability to wider areas and audiences. Montana higher education needs to reach constituents who live great distances from colleges and universities, and face difficult economic and climate challenges. Many Montanans view themselves as place-bound by family or employment responsibilities, but they are compelled to compete in an ever more educated workforce. The next chapter describes the methodology that was used to examine program-level assessment of distance-delivered degree programs in the state of Montana.

CHAPTER 3

METHOD

Introduction

This is a qualitative study, focusing on current program assessment practices of distance-delivered programs in Montana. The purpose of this comparative case study is to examine models of distance-delivered program assessment as they exist in successful programs within the Montana University System. This study seeks to answer the question of how faculty and administrators in the Montana University System are assessing their online degree programs or how they expect to implement program assessment when the maturity of the program reaches a level that enables them to do so. The specific research questions addressed included:

- How are current program faculty members/administrators assessing instruction in their online and distance degree programs and how would they like to assess instruction in these programs if time and resources would allow?
- How are current program faculty members/administrators assessing student learning in their online and distance degree programs? Again, how would they assess student learning if/when resources allowed?
- How are faculty members in distance and online program delivery supported in developing their courses and programs? Further, how are faculty members enhancing their own skills to deliver distance and online courses that in turn make up the distance programs?

The context of the study was the Montana University System (MUS). The MUS is a public, state-funded university system, serving a geographically disbursed population, which is primarily rural. This rural population increasingly depends on the ability of students to get a college education without the need to dislocate from their home community. Distance learning is a vital tool in the economic and social development of rural America. Faculty members and administrators at each of the institutions in Montana are engaged in delivering either entirely distance programs or programs utilizing only a few (one or two) courses delivered using hybrid delivery approaches.

There were fifty distance degree programs offered by units of the MUS at the time of the Commissioners last formal report prior to the conduct of this study. In a recent report provided to the Montana Board of Regents, this number has increased to 98 academic programs including 23 certificates of Applied Science, 29 two-year degrees, 10 bachelor's degrees, 18 graduate degrees and 18 professional certifications (OCHE, 2010). Selection of study participants was purposeful, with the intention of gaining a fair cross-section of institutions and programs offered by the Montana University System. The directors of distance programs at four institutions with mature distance-delivered programs were contacted in order to identify potential participants. Each of these directors solicited volunteers from faculty and program directors who either taught in distance programs or were program directors for distance programs or both. Fourteen participants were ultimately identified and interviewed as part of the study. The programs were identified by the distance program coordinator at each campus, thus, the

definition of quality was somewhat subjective. The distance program administrator was asked to identify his best programs, without imposing a criteria for that identification. Each campus was left to identify their own 'excellent' programs in the same way commissioner's office identified the 'best' campus in each category for inclusion in the study.

The research consisted of structured interviews of participants, followed by preparation of transcripts. Transcripts were shared with participants to verify the conversation record and to clarify any information gained as part of the interview process. The questions used to focus interview discussions sought to derive current practices and/or opinions on distance program assessment.

Context

The context of this study was the state of Montana. Montana has a population of only 944,632, ranking it 44th in the nation. This predominantly rural population is spread across 147,000 square miles. In 2006, 90% of the population was identified as having graduated from high school, but only 27% had obtained a Bachelor's Degree or higher (State of Montana, 2007). The study was limited to institutions and programs within the Montana University System. The MUS is a public, state-funded university system, serving this greatly disbursed rural population. The residents of Montana increasingly depend upon the ability of students to earn a college education without the need to dislocate from their home community.

There are currently six four-year campuses separated into the two arms of the Montana University System. In addition there are five colleges of technology, three of which are closely aligned with four-year campuses. Three Community Colleges are not part of the Montana University System, but state law gives coordination oversight of these institutions to the Board of Regents of the State of Montana and the Commissioner for Higher Education. There are seven Tribal colleges not associated with the MUS which were not included in this study. Private colleges in the state were also excluded from the study.

Participants

This study included faculty members and administrators who are currently active in the delivery of programs or degrees defined as distance education. The MUS uses the definition developed by the Sloan Consortium (http://sloanconsortium.org), which defines a distance program as one that is delivered using distance technology for at least 80 percent of the coursework. Based on the report from the Montana Office of the Commissioner for Higher Education (OCHE), there are nine schools within the Montana University System currently delivering 'Fully on-online' degree programs, with a total of forty six individual programs delivered (Gibson, 2006). Table 1 shows the schools and levels of online degree programs within the Montana University System used for selecting participants for the study.

To identify participants for this study, Dr. Tom Gibson, Deputy Commissioner for Distance with the Office of the Commissioner for Higher Education (OCHE) provided

contact information and recommended four institutions representing a cross section of campuses, which have a number of mature, successful programs. The community college was not included in MUS reports, since the community colleges are not part of the MUS, but under state law are overseen by the Board of Regents and the Commissioner's office. Dr. Gibson included a community college to complete the breadth of the study. Faculty members and administrators were identified at each of these institutions by the director of Distance Education at that campus, to participate in this study. The participants represent a fair cross-section of disciplines delivering degree programs on-line. Of the fourteen participants, four are full time administrators, four are identified as faculty only, and six identify themselves as teaching in the Distance Education program, but having administrative duties as well.

Table 1. Distance Programs in the MUS.

Deg	**MS**	**BS/BA**	**AA/AS**	**AAS**	**Cert**	**End**	**BAS**	**Total**
UM-Missoula +	3			1	2	1		7
UM-MT Tech +	2	1						3
UM-Western		1				1		2
UM-Helena								0
MSU-Bozeman	3				1			4
MSU-Billings +	4	7	4	1	5		1	22
MSU-Northern		1						1
MSU-Great Falls			2	2	3	2		9

Participants represented a variety of disciplines and degree programs which include: teacher education, health professions, business, and computer programs. Several participants were associated with departments that offered more than one complete program (for example, a certificate and an associate's degree.) Participants offered detailed descriptions of 23 different programs: 8 certificate programs, 10 associate's degree programs; 2 bachelor's degree programs and one graduate program.

Since the administrator responsible for all programs at each institution was interviewed, information about all online degree programs at the participating institutions was included.

Essentially all of the participant in the study were early adopters of technology. While they were encouraged to make the transition to online instruction, they each volunteered to receive initial training and to develop distance programs. In all, four institutions were included in the study, table 2 shows the general distribution of participants across institutions and the general distribution of programs across degree type. Since some of the faculty taught within multiple programs and the administrators often described multiple programs offered at their campus, the number of programs described the participants represent more than fourteen programs.

Table 2. Participants.

Institution	**Total participants**
Institution 1	5
Institution 2	4
Institution 3	3
Institution 4	2
Total	14

Programs Offered	**Total programs represented**
MS	4
BA/BS	10
AAS	16
Cert/Other	24
Total	54

Researcher

The interviews and analysis were conducted by a tenured faculty member/chair at one of the units within the Montana University System. This faculty member is not currently engaged in the delivery of an online degree program, but is active in delivery of courses which are part of degree programs, as well as with the assessment and accreditation process required by the Montana Board of Regents as well as regional and professional program accreditations. The researcher has over twenty years of experience in teaching in higher education, as well as experience as an accreditation team member for the Technology Accreditation Council of the Accreditation Board for Engineering and Technology (TAC-ABET). In addition, he has received training as a team member for the regional accreditation agency – Northwest Commission on Colleges and Universities (NWCCU). The researcher was able to maintain a fair level of objectivity, since the programs, disciplines, and methods of delivery were vastly different than those previously studied or experienced in prior assessment or accreditation activities. Since the subject of the research was providing new information, there was much less tendency to criticize the quality of the assessment activity, but rather an effort was made to understand how the assessment activity was used.

Data Collection

Research subjects were selected by contacting the faculty members or administrators nominated at campuses by the director of Distance Education Programs at that campus. Informed consent was discussed with each participant when members were

contacted in person and asked to participate. The interview protocol approved for this study consisted of ten open-ended questions – included in Appendix B. Interviews, with the exception of two, were conducted at the home campus of the participants – typically in the participant's office or a common area of their campus. Two interviews were conducted by telephone, since the full-time faculty members/ coordinators in two programs included reside in very distant locations – one in Maine, the other in Idaho. All fourteen interviews were recorded using a digital voice recorder and subsequently transcribed by the researcher. These participants were either selected by the administrator in charge of distance programs at the individual campus or, after the potential participant was nominated by the administrator, the individual self-selected as a participant by being willing to be interviewed. The transcription process attempted to utilize voice-recognition technology to facilitate the process. Mixed results required significant editing to remove 'artifacts' of the voice recognition process. The final transcripts represent 156 pages of material.

Interviews were conducted starting in the fall of 2008, and concluded in June of 2009. Interview participants demonstrated a significant interest and zeal in the process of distance delivery as a program delivery methodology, as well as for their own academic disciplines. Each interview was scheduled to last for one hour. In practice, some interviews were as short as a half-hour, while some went for well over an hour based on the participants willingness or desire to expand on the question. The interview was ended when the participant responded to each question as much or as little as they desired.

Data Analysis

Analysis was performed by identifying common themes in the interview responses, then gathering and interpreting those themes. Transcripts of interviews and field notes were coded for themes using manual color coding methods. Sections of interviews that emerged as common themes among multiple interviews were collected and analyzed to identify dominant assessment techniques. Using the constant comparative approach, the researcher looked for instances that represented a coded category, and continued examining the transcripts until no new information was identified that provided insight to the category (Creswell, 1998).

This information was used to define and describe the derived model for assessment of distance education programs.

Trustworthiness/Credibility

The interview process was evaluated by the committee, then pilot tested with a colleague of the researcher to verify that the timing and questions were clear and understandable. The exact interview script was maintained through each interview although this tended to lend a very formal structure to the interview process somewhat inhibiting a free flowing dialog.

A transcript of each interview was prepared by the researcher, then reviewed and corrected to remove errors in from the transcription process. The interviews were provided to participants for review/correction as a method of member checking. Afterwards, each interview was analyzed and coded. Every interview transcript was

reviewed in the process at least five times by the researcher. The analysis process included a process of entering coded references to each transcript into a database which provides a data audit trail.

Because of the researcher's involvement throughout the University System, and both assessment and accreditation, a conscious effort was made to avoid allowing the researcher's opinions to interfere with the interview process. The researcher's home campus was not included in the research, and each of the participants were either completely unfamiliar with the researcher or in one case, had been a casual acquaintance from meetings within the system.

Summary

This study is based on qualitative case study methods, with the goal of describing current practices in program assessment for distance education programs. The study was completed using currently available data on the Montana University System to guide selection of participants with as broad a selection of representative programs, degrees and institutions as possible. A complete description of the results is presented in chapter four.

CHAPTER 4

RESULTS

The problem addressed by this study is that stakeholders in higher education need to know how faculty members teaching in distance programs and administrators of these programs currently assess their degrees and how they plan to assess program outcomes and success in the future. The purpose of this comparative case study is to examine models of distance-delivered program assessment as they exist in successful programs within the Montana University System. This study seeks to answer the question of how faculty in the Montana University System are assessing their online degree programs or how do they expect to implement program assessment when the maturity of the program reaches a level that enables them to do so. In general, themes identified can be separated into four broad categories; Design of the program, Evaluation of the End Product, Using Surveys, and that Additional Work is Needed. Within each main theme, several subthemes emerged that are discussed in detail in each section.

Design of the Program

More than 90% of the participants reported that their programs were designed with the deliberate intent of assessing the quality of the program and graduates. These design considerations included several general themes;

- Meeting Accreditation Expectations and Professional Standards
- Integration with existing assessment plan

- Evaluation of Student Readiness for online instruction
- Support for students and faculty

Meeting Accreditation Expectations and Professional Standards

Ten of the fourteen participants described assessment procedures that are embedded in the original design of the program by way of specific outcomes or objectives. These program designs are often driven by either accreditation agency requirements or by a national or industry-based professional organization that specifies national standards for the profession.

Programs have made use of external accreditation or certification standards to ensure that the program is designed to comply with a national standard. Others are responding to regional accreditation standards. One administrator at a major university in a health related field reported that:

> … because we're working on accreditation, they've been tasked with many of the accreditation activities. One of those things was setting up the competencies and the objectives. The curriculum committee took that on to have each of the faculty go through their courses and address how their courses met these competencies and relate them back to course objectives. And then once the document was collected, look for areas of weakness and try to address those in some way. We're still in the process of doing that.

Some regional accreditation groups have begun to develop standards specifically directed to ensure program quality in distance programs. A distance education administrator with broad experience in distance programs throughout the country reported that:

> … it has to mature and again, coming from SACS [Southern Association of Colleges and Schools] – that's what they do. How do you know that online experiences are the same experience as a person got on campus? How do you support online faculty work at a distance? … are they getting the same support as a person in the office downstairs?

In addition to regional accreditations, specialized accreditation groups exist for professional degrees. An example provided by a teacher/administrator with experience in specialized accreditation indicated that for programs in medical records, "It's called AHDI … it used to be the American Association of Medical Transcriptionists, and they've changed their name to AHDI … it's American Health Documentation [Integrity]…." This was found to be present in five of the distance programs included in this study. A distance education administrator reported that, "The Health Information Technology program (is) accredited by AHIMA, American Health Information Management Association."

Programs that are closely aligned with industry certification partners can be driven by outcomes based requirements. Again from a faculty member in a technical program:

> Cisco is all outcomes based. When they create a module, one of the first things they do is sit down and create a whole list of outcomes. They don't even put paper to pencil to write a question until they've got this all done. Once they have that finished, and they have the content in front of them, they start building the Cisco modules.

In addition to professional accreditations, a number of Montana distance programs are designed using nationally recognized standards that do not include accreditation. As indicated by an instructor in an online education program:

> There is no accreditation, specialized accreditation for communications. They're working on that issue. It seems to be becoming a requirement.

> Traditional accreditation was for speech and drama teachers in high school. Montana no longer has a major endorsement in those areas. So we haven't been doing NCATE (National Council for the Accreditation of Teacher Education) and that kind of review for a while now. You can have people come and be evaluated. The National Communication Association has a group. And you pay money and they will come and assess your program. It's a whole section in the disciplines – outcomes based assessment.

Similarly, a faculty member/administrator in an online medical related program indicates that:

> We've changed the curriculum in the MHA twice. So I'm like – just don't touch it. Just leave it. We changed it because we've looked at having CAHME [Commission on Accreditation of Healthcare Management Education] in – although we're not CAHME [accredited]. You're looking for programs that are outcomes driven programs overall. MHA programs are accredited by CAHME – which stands for Commission for Accreditation of Health Management Education. They have moved to competency-based programs. You have to have a competency model in place to go through accreditation as part of the MHA accreditation process.

A distance education administrator responsible for overall online delivery at a major university discussed similar accreditation issues that are present from the moment the program is conceived:

> It's a master's degree in school counseling. To even go forward to offering that we have to write a proposal and get approval from CACREP (Council for Accreditation of Counseling and Related Educational Programs) – which is counseling's accrediting body. And it's a fairly stringent – it's one of those accrediting bodies that really seems to be watching carefully and setting pretty stringent guidelines of faculty to student ratios and things like that to then go into this blended program. So that's an example of where the professional accrediting bodies is something we take very seriously.

A faculty member in another online medical related program had similar observations about using accreditation to aid in the design of a degree program based on nationally recognized standards:

> Yes, they have a whole set of knowledge clusters that we have to follow and every year we have to report to them on where each course falls. Where each area is taught, so we have to outline exactly where we're teaching all of their requirements. In that same report we have to outline goals for the coming year.

Faculty members involved in delivering General Education or Core courses must be aware of and concerned in meeting criteria for a variety of programs that they provide service courses for:

> So I've got to assume that everything we're covering fits with the computer accreditations, fits with the NATEF (National Automotive Technicians Education Foundation certification), with the diesel and process plant (degrees). Process plant is one that we've heard a little bit of return on. Yeah, they get pretty heavy in math…

And even though programs may not have a specific accrediting body to provide the framework for an educational program, other nationally recognized associations may provide guidance and may even provide evaluation of degree programs based on their desired outcomes. As reported by a faculty member/administrator in an online communications program:

> So, one of the things we're looking at is for our national – not accrediting body… The National Communications Association is just in the last two years putting together a document for assessment for communications programs. And so we're talking about seeing if we can get them to do a review. … We wouldn't be accredited, we'd just be evaluated.

Sometimes, programs that are closely aligned with others, are impacted by indirectly related accreditations. From a faculty member/administrator in another health related field:

> Our college of business is putting together all of the material to go up for the ACSB accreditation. [They] took a look at all the courses that were offered in the [Bachelor of Science in Health Administration degree] and said you don't have control over that and we don't like that. I've been working with the college of business over the last three or five months and put [a program] together … what it will do is take that [group of] required supporting courses and made that a business minor. [It has been approved] and ACSB loves it … my BSHA students actually come out with a minor in business.

An established requirement for an effective outcomes based assessment is the design of a program around measureable outcomes. Certainly, programs with established national standards may have these outcomes already established. Program faculty members in the MUS are also active in designing programs around measureable outcomes even when it is not in response to a national standard or accrediting body.

A distance education administrator reports that in the design of online programs for assessment, faculty members have determined the desired outcomes, "Say the (for example) English department. They've come up with their measurable outcomes and what they want to have come out of all their programs." Another online program administrator expands on the idea:

> The challenge is of mapping the outcomes to competencies. And also, you've probably seen this, but identifying competencies isn't as common as you would think. The way I built online courses, the very first thing you do is outline competencies. At the end of the course the student will … and I've worked with teams of faculty to develop courses. … I mean you get your faculty together, you take those competencies and you map those out. Eventually to the outcomes in and what are the activities that accomplish those competencies. … if you can map the outcome –

> competency/outcome to the assessment – then you've got something… tangible to go on.

When programs are designed based on industry or discipline standards, they more clearly address the goal of meeting stakeholder needs and expectations.

Integration with Existing Assessment Plan

Institutions of higher education are required by a number of constituents to ensure the quality of their programs – both traditional and distance delivered. While much of this quality assurance is a direct result of policies from the U.S. Department of Education and regional accreditation agencies, every level of stake holder, from student up to the funding bodies seeks to understand that the programs have some measure of quality. Each campus within the MUS has established assessment procedures to provide the answers to these questions, both as part of assessment and as part of quality reports to the state and local bodies who wish to know how the institution is doing. The integration of distance-delivered program assessment with existing/evolving on-campus face-to-face program assessment was another area commonly discussed by participants. Participants discussed a number of issues related to the direct measurement of outcomes and identified a number of ways the results were evaluated, including review by faculty and staff, advisory boards, employers of graduates or by completely external entities. The participants also discussed the importance of the inputs to program development and delivery. These included the use of systemic evaluation of delivery methods and content, preparation of instructors and program/course developers, support mechanisms – both support of teachers and of students, and mechanisms to ensure program quality.

Throughout the Montana University System, the assessment programs of the originating campuses are being used to also drive distance programs. This was cited at all four participant campuses. A faculty member/administrator for a medical related program indicated that:

> We're in the process [of developing a system] so that every program in the college is reviewed every five years. And that would be program level assessment. We develop that as part of our accreditation, I would guess. It's been seven or eight years ago we were told we needed to do more program level assessment. Out of that came the Committee For Program Review, … and we developed a process to review on a five year cycle. We do a number of programs each year and every five years every program is reviewed. And the things we look at – graduation rate, we look at success rate … We look at the number of enrollees and the number of successful exits for those enrollees.

The implementation of program assessment in each of the institutions in this study have varying degrees of systemic program assessment for all programs, though course level assessment is more common. A distance program administrator reported that:

> Institutionally that I am aware of there is not a new uniform system of program assessment… … I think that's still going to be particular to the school or the college and whatever their accrediting agencies require. You know, when you first contacted me and told me what you were interested in, I was wondering what we do around here that was different for distance learning. I'm not sure that you will see a great difference between program assessment for that program on the campus and program assessment for that program that happens to be delivered online. … I'm just saying there isn't necessarily a difference in the mechanisms.
>
> We have a great interest in quality, that's sort of in our nature. (We have) instructional designers on staff that's sort of in my background as well. We're always looking at effective course design, and part of that thinking is proving that and having measures by which we can attest to quality. So it's hard to look at course quality and not think of program quality.

At another university – the current campus-wide assessment program is well established and mature in the organization and structure of the assessment activities for all programs. An administrator for the online programs indicates that:

> We have what we call the CQI committee. Continuous Quality Improvement committee on campus. Which answers campus-wide. They gave me a notebook that tells me what I have to look at. Tells me how I have to evaluate my program. They do annual reports with CQI. So it looks at, basically, each of the University's strategic initiatives, and the academic initiative and applies it to health administration and then we have to respond to each of those. So, they do a very integrated approach and they come back and look at that and validate it with (an assortment) of tables (of data). Two of our deans on campus are responsible for this.

This overall integration of effort reaches every level of this campus's online offerings as reported by that distance program administrator: "Yes, its CQI now and assessment is what they do. … It's a broad representation of the campus."

Much of the effort for distance programs is focused on making the online course reflect the traditionally delivered, on-campus program. Another faculty member reported that a concerted effort has been made to align the on-campus and online programs; "…we have really tried to make an effort that our face-to-face classes and our online classes are not to be any different. So we assess them very much the same, and we have a campus-wide assessment program." Although the method of delivering instruction may be vastly different because of the distance method of delivery, the outcome for the programs is viewed as being necessarily the same. The degree in the discipline is the same degree, regardless of delivery modality.

The specialized accreditation of programs extends into online offerings in each of those programs that have them. The specialized accreditations are discipline specific and

range in terms of the extent of requirements for accreditation. In addition to guiding the design of a program curriculum, program accreditations include regular visits by the accrediting agency, providing another 'set of eyes' – reviewing the assessment processes and results. While a program designed to meet accreditation guidelines demonstrates program quality in terms of design, program accreditation adds external review to the assessment process, ensuring that program outcomes meet a nationally recognized standard. In referring to a program that has specialized accreditation requirements that must be identical to an on-campus traditional program, an instructor indicated:

> We're accredited by NCATE and so our online program is part of that accreditation and we're also accredited, as you probably know, by the Northwest visit. And it all has to fit in with that so I'd say Education has been ahead of the curve.

For a number of programs examined in this study, the maturity of the on-campus program assessment propels and/or constrains the program assessment of a parallel distance-delivered program. In each case, the group or entity that receives the assessment information and makes decisions based on that information remains the same – regardless of delivery method.

Evaluation of Student Readiness for Online Instruction

For students to be successful in distance programs, they must have some defining characteristics – not the least of which is self direction and the ability to self-motivate. Lockhart & Lacy (2002) includes student readiness for distance courses as one of the seven components of their proposed model of distance-delivered program assessment (Lockhart & Lacy, 2002). Over 60% of the participants in this study, commented on the

readiness of students to participate in online instruction as a significant factor needed in assessment of the quality of online academic programs.

As reported by a faculty member in an online technical program:

> … most of the students in the program are pretty self-directed. Those that join the program, find out very quickly if this is something that they want to do for one thing. Not everyone's good for networking and PC support and that kind of thing. That sometimes is what they figure out – this is not their bag. Secondly, they happen to be self-directed. If you're working in (this) field, you have to be self-directed…

An administrator in a medical related online program reported that:

> We do have some students that finish their undergrad straight out of high school and want to come into our program, but typically they have a little more experience, and direction. Our students that do come straight from undergrad school … are quite motivated.

Another faculty member/administrator describes the student that is more likely to be successful in his programs:

> The online students are clearly more mature, more motivated, better skills – study skills and writing skills. There are various predicaments alright (that online students might find themselves in), and I think they're trying to get their education. They want their money's worth – more so than the youngsters…

While non-traditional status may not be a definite predictor for success in an online program over 50% of faculty members in distance programs cite a larger than average number of non-traditional students in their programs. Another online instructor relates that status of her students in the online program as:

> Probably, I'd say half and half nontraditional and traditional. I have right now about 65 advisees, and of those about half are nontraditional. Many of those are single parents, and have not been in the workforce for a long time or displaced workers for whatever reason, the economy right now or recently divorced to have to go back to work and things like that.

Over 60% of practitioners indicate their students work – many full-time – which dictates a need for the schedule flexibility of online coursework to graduation. An instructor in an online computer program reports that; "Most of them work in some manner. I think I have one or two who don't work full time. Most of them are already full time (in this industry) doing something."

Similarly, a medical-related program faculty member/administrator reports that:

> The MHA that we currently have typically 95% of them are working full time in health care, and taking the program as a mechanism for perhaps advancing within their facility or they're an individual who has a nursing degree, has more than two years in a management position, has no management background – has clinical background but no management background. So they come into the program in order to fulfill that need to move into a management position in the facility that they're at. … Undergraduate tends to be more nontraditional also now. We have a lot of students who work full time and take courses online because it accommodates a full-time work schedule.

Another element that leads students to take courses that are part of an online degree program is that students enrolled in an on-campus program attend distance versions of courses based on scheduling or other motivations. An online program faculty member reports that; "Most of our students are right in this area. They take online for free time – they think they know they are all ready so that they can make it easy."

And an experienced online faculty member/administrator from the same institution reports that:

> Our online population is really fragmented, because we have several – we have quite a few people who live in (the local community), who take online classes but who are not fully online students. So they're in a mix of online and traditional face-to-face.

International students are another source of highly motivated enrollees. Students enroll for the prestige of attending an American university. A faculty member reports that:

> Then we have students who are scattered throughout the world. I have one in Egypt, one in Germany, one in Argentina. One in Japan this summer and one in France this summer, and one in China, … Almost all of them are full-time students. Almost all of them have children and families.

The question is whether students are both mentally and intellectually prepared to take a distance program. The question of verifying the capabilities of students in the technological preparation area is not being used to ensure student success. Some effort has been made to ascertain that qualification, as indicated by one distance program administrator:

> We do not have guidelines at this point for taking a distance class. And recommendations along that line – they need to be computer literate. We have that on the web site. We have a small self-assessment quiz, a little ten pointer, that asks them some questions. The result comes back and says, you might want to think about this based on your answers. And we've talked about – that there should be more rigid gating process.

But as was echoed by about 30% of faculty members, there is a concern among practitioners that more needed to be done to assure student success:

> I would say it's something that should be addressed. I really think there should be. I've hear of other schools where they have to come in for one day. They at least have to go through an online training to be an online student. And that's not something that Montana – I've taken classes from Bozeman, online. I was actually getting concerned – being the concerned student here in my bachelor's days.

Each of the fourteen participants indicated that student characteristics such as maturity and preparedness to work in the technology were important indicators of student

success. While this was true, only one participant reported awareness of an effort to evaluate whether a distance program was appropriate for the individual student.

Support for Students and Faculty

In addition to selecting students who have characteristics predictive of success in the online environment, orienting and supporting students as they engage in a program is recognized as vital to student success. Attempts to ensure that students are prepared for distance-delivered programs are in their early stages in the MUS. Every participant in this study commented about institutional support provided to students engaged in distance delivered coursework and programs. At a major university, the distance education administrator reports that:

> That's all about student preparation – setting students expectations appropriately, including what online learning is. You don't go into that or make that choice with the simplistic view that it's easier or that it doesn't take time. It's neither. It really takes time. It may be flexible time, but there's a danger with flexible time with some kinds of students. We are putting together a big initiative for the coming year, where we have a comprehensive kind of student- I guess it's sort of an orientation, a preparation, a plan. Part of it is better education for students up front for their choices.

Some attempts, though not standard even within one institution, have been made to help students prepare for online instruction through delivering formal instruction on that mode of learning. A faculty member at another school indicated that:

> What we have done as a college and that's helped I think, is we've developed a preparatory course that students take online. And I try to encourage as many to take that as possible. To go into that class before they take many online classes. We have a sort of test that they can take to (show) they have the technology (to get through the program.)

And at another school, a formal instruction process is available though not mandatory for online or potential online students, as reported by an online faculty member:

> ECollege has some built-in tricks and we actually have a class called COMT 201 – technology for communication. And it actually teaches them, in some way … the Microsoft Office package and some basic critical analysis of using the web. How (are students able) to find the best source. It's pretty much an information technology class with come critical app location. And that's a good class because we find people who really need help. It was required for all our degrees – we just took it out because we're finding fewer and fewer students need the class. But we're keeping it in our curriculum and will teach it every other year for students who (need it).

Though not an exclusively technology or online delivery course, some programs require an on-campus course as part of the program, that introduces students to the faculty and helps prepare them for what is expected as part of the degree program. An administrator in an online medical program reported that:

> We have a campus required course. It is a one week intense course between spring semester and summer semester they squeeze it in. Three credits and that's rural health in a global context. And it's taught by one of our political science faculty members.
>
> We call it an orientation, but is more of a mini conference – would be a better way of putting it. We have speakers and research awards. We have faculty and student research awards. And in addition to that we have our student training. The goal is to get students together – it takes place on campus for one day, at the very beginning.

With only a single program reporting the on-campus experience as part of the program, faculty members in the distance program report that they attempt to engage the students in the social context of a program using threaded discussions or group assignments. Otherwise this form of program orientation is left to personal communications between faculty and students – either email or telephone.

Another assessment criterion for online programs identified in the assessment model developed by Lockhart and Lacy is technical support for faculty. Support of faculty in course development, implementation of the course using the delivery mode, and technical support throughout the course design, implementation and delivery is an important feature of successful distance programs in Montana. While technical support for the course management system (CMS) was present at each campus, only two campuses reported any degree of design, implementation and delivery support.

Training in the use of the technology was identified as an important feature, and excellent models of a successful approach is indicated by a distance education administrator:

> What we have is a semester long class that we started a few years ago that we call Facilitating Online Learning – fifteen week. … By the end of the two years that we taught it we had a total of about forty that had been involved of the about fifty that taught with us. … Now we offer it every fall, if someone is new with us we try to get them into it. (It is) A major victory for us to have that in place. ... We feel pretty good about that – it looked really good in the eyes of the accreditors.

At another campus, the need for faculty training and support is recognized though the approach has differed, as reported by that campuses distance education administrator, speaking about the support provided:

> … this has been a major focus for us. Frankly, when I arrived, I felt that was an area that needed development. So we have an instructional design team, that and a process that all new – all faculty members who are willing to put a course where we design a course to put online that will go through us. … We've been able to enhance that and people are starting to recognize that.

Both technical course delivery mechanisms as well as pedagogical training are important to successful programs. The same administrator indicated that:

> We think it's very important to meld technical training with the pedagogical training. Then you have a context that makes sense. We still do sort of short technical workshops. But that's not as effective as learning about the tool that supports what you're trying to do, in the context your trying to do it.

And at a much smaller institution, the need is recognized and some efforts are reported by this online instructor:

> We have an instructional technologist, and there is a prior course that we have to take, in order to put a class online it goes through the platform, goes to converting from face to face to all online.

This level of attention to training is not universal throughout the MUS however. Even on campuses with successful programs, there is not a standard of training preparation for instructors. One instructor reported that:

> There were some classes that were offered here and there – there was nothing – it was more if you wanted to get it, it was there. If you are a proactive teacher…

And from the perspective of the faculty at one of these schools:

> We have a good distance education department, but it's pretty understaffed … they help with the tech side of things. We're just changing from WebCT to Desire To Learn and they help with the tech part of it. But we don't really have a lot of people who have done directly anything for online learning. We do have a course what was developed and that course helps the faculty with both the technical and the course curriculum design for online learning.

The evolution, though in the initial stages of development, has already received attention as noted by another faculty member:

> When I first got here, no. The entire training was, how do you logon and set up eCollege? So there was no pedagogical – in fact the guy who was here … didn't have the support. … But the university has made a huge commitment in hiring (the current staff), I think it's spectacular.

And another perspective at the same institution by a faculty member in another department:

> We're pretty much unsupported – I just got into it because I got senior and to remain viable I needed to catch this training and ride it as far as it could go. … You know, I went to the workshops provided long ago. But you know you visit with your peers and you get good ideas in the network.)
>
> It would be nice to have more support instead of having to do it all myself. There's one class online about the environment of communication how you can manipulate environments to create the correct atmosphere, encourage certain kind of interpretations.

Once the course is designed and online, the ongoing support of both the instructor and the student was identified as an important feature of successful campus programs. Support of students takes the form of both a technical 'help desk' sort of support, as well as resource support as expected by accreditation requirements. Again, each campus provided some level of this support. An online program administrator reports that:

> For instance, one of them was – How are you going to make sure that library resources are adequate for the students at a distance. And so we have that capability, but we just needed to specify that we've got all of our electronic databases, if there happens to be a physical book on our shelf that somebody needs, we will ship that book to that person.

And a faculty member at another university reported that:

> We had a task force and we did an evaluation and we said we need to have an operation center. And [the institution] was good enough and put together our learning operations center… If the students have issues, if the faculty have issues – that kind of thing.

The administrator for distance programs at that school reported that:

> Right, if we had the resource we could do [faculty support and training]. All we've done … we have faculty mentors. Faculty that we've identified as leaders and we pay them a stipend. And they get a little extra training, and they take on the responsibility of working with their colleagues… at least in their office, of how to [answer] Desire to Learn question. The

> halfway point of having an instructional designer in every office is the faculty mentor.

Successful distance-delivered programs within the MUS system have addressed several aspects of program assessment from the very beginning of the process of designing the program. Most successful programs had fully developed program student learning outcomes, and integrated the program assessment activities with a campus-wide assessment program. Almost 80% of programs are responding to the demands of accrediting bodies or national standards to provide measureable program objectives. Campus-based assessment plans are also contributing to the development of program assessment for distance delivered programs. Successful programs are also cognizant of the characteristics of their students and have support mechanisms for both students and faculty as they engage within the program. The next section reports on the second main theme from the data analysis: evaluation of the end product.

Evaluation of the End Product

In addition to considering program assessment during the design of the program, a number of successful programs were implementing some form of summative evaluation of either the students or the program. Well over half of the programs that participated in the study specifically reported that steps were taken to have the program or graduates evaluated to demonstrate whether designed learner outcomes were met by the online program. These methods included:

- Peer evaluation of the online program (Quality Matters)
- Licensure or certification process for graduates

- Evaluation of Student success
  - A project or capstone course
  - Class performance in specific courses
  - A graded internship as part of the online program
  - Performance on a licensure examination

Peer Evaluation of the
Online Program (Quality Matters)

Peer review is a recognized and powerful assessment tool. A program that includes peer review of online course quality called 'Quality Matters' was referenced on each of the four participant campuses, though no campus had fully implemented the Quality Matters protocol Several participants also described "home-grown" procedures for systematic peer review that were being developed locally. One technique calls for teachers who have demonstrated success as online instructors to evaluate other online courses and instructors. This evaluation tends to be general rather than discipline specific and based on an established standard or rubric.

As described by the Quality Matters organization itself; "Quality Matters is a faculty-centered, peer review process that is designed to certify the quality of online and blended courses." The Quality Matters (QM) organization provides a rubric for assessment of the quality of online courses, by examining the design and features of an online course to rate the quality of the course based on these standards. The QM approach uses other faculty members to evaluate an institutions' courses using this rubric. The rubric calls for the examination of the overall course presentation of introductory

material to the course, learning objectives, the method of assessing students, the resources provided to students, methods of engaging students, the technology used in the course, learner support, and accessibility of the course. These course components are evaluated and assigned a point value, which in turn provides a rating for the course. It is significant to recognize that this process provides a course level assessment rather than a program level assessment of quality (Quality Matters, 2010.) While course level assessments can add to the program assessment, they are not sufficient for program assessment and must at some point blend with other assessment methods.

It is being used on some Montana campuses, but will continue to require development. As reported by one online administrator:

> (It is) Just that I have a couple of program directors. They're getting their program faculty to do it but we haven't even done the formal process that I'd really like to do. What I was hoping to do this year is start something like that of a peer review process and get involved and sign up for it and have a little funding behind it and stuff, but … no excuses, it just didn't happen

A faculty member at another school indicated that while he would welcome the collegial approach to program assessment, he felt it did not currently exist:

> Our online work does not get reviewed by other people that I know of. At least I don't believe [that online work is getting external review]. It would be nice – I would love to have more transfer where people are evaluating each other. At least we've been talking. … where we would go through on to math people and we would get together and talk about the different math, what we're doing in 106 and 122 and how that fits with the chain of classes.

A faculty member at one school indicated that:

> We developed a peer review process. … I had put a course through Quality Matters to see what its all about then we had one person take the training for Quality Matters. The we all kind of met and decided – did we

> want to go with Quality Matters or did we want to design our own sort of peer review process. We decided to design our own peer review process, and only just finished that – the classes and guidelines last semester. So now we're trying to put it in place but with the training, and then they changed (the CMS) to Desire to Learn, so it's been put on hold a little bit. We're hoping to build a peer review process into our online programs as well. I think that will be a really good thing. I found that Quality Matters, when they evaluated my course, gave me really helpful feedback. So once we get that built in between that and the class we'll give to new faculty, I think more of the pieces will be in place to help with curriculum design and not just the technology side.

An online program instructor/administrator from another institution who participated in this study indicated that:

> We're going to move to Quality Matters. It is basically a set of standards to use before you start teaching – before you start delivering a course online. There are some things that need to be in place. Your syllabus, course outcomes, your objectives – those kinds of things. Deliverables, schedules and so forth. And then it goes in and looks at some grades and some various things throughout the course. We're just going to move into that in the spring. … We got caught up in our D2L conversions anyway, but will be using Quality Matters at the graduate level to do some course by course assessment.

While participants indicated that they had examined this program of review, they felt that their institutions were unable to participate due to the cost of the QM program. Based on this peer review structure, however, several MUS campuses are using the peer review and rubric approach to improve program design and through that improve program quality. A distance program administrator reported that:

> I don't know anyone who does it really well. It's sometimes drawn as the three legged stool of Quality and quality design is one leg, with the output and then faculty support and training on the other end. The other thing we're looking at, from our end, is that formative (part). What I really wanted to do with the Quality Matters piece is that formative, informed redesign and support it from what I can control which is course design. My leg (of the assessment stool) is the course design and working with the faculty on the design standards for the course.

Another online program administrator reported that:

> I'm very familiar with quality matters. In fact, we built our principles of quality with a great deal of borrowing from the quality matters rubric and approach. We have a peer review process as part of any new course going online. They get to talk to each other about what they're doing and offer each other suggestions.

In another interview the administrator of distance programs reported that:

> We have a distance Ed Task force group – each one of the departments have [an] experienced online faculty [on the task force]. We went through the Quality Matters stuff… We had a course reviewed and then we all did peer review. We've taken [a] grid that we've created [and used it to evaluate online courses]. It's good to have that sort of level of feedback to inform them as an online course using the technology and pedagogy and the tools that allow different things that go into that Quality Matters rubric."

Licensure or Certification

Process for Graduates

Specialized accreditations often lead to certification exams that can be used for assessment. Certification examinations differ from licensure in that they are developed and administered by corporate entities or not-for-profit groups, seeking to set standards in an industry. Licensure is typically a government supervised function that has the force of law behind it to regulate a profession. The credential received adds to a student's employability, but is often a one-time certification rather than a license, which must be renewed and usually includes continued study in the field.

A faculty member/administrator in a health related program indicated that

> … we are fortunate that at the end of the program, the students have to take a certified medical transcriptionist exam. That pretty much tells us everything and where our weaknesses are. And that exam is given

> independently of us. So we don't have anything to do with it, we know what the topics are, but we don't know exactly what will be on the exam.

Programs that lead to professional certifications for graduates provide a source of standards and accreditations for other programs being offered at a distance. A faculty member in a technical program stated about assessment of student capabilities:

> … the other way is if they happen to pass their certifications. And all of these courses that we offer aim toward NCC and CCNP certification, CompTIA certification, Network Plus (certification), etc. So there are a fair number of certifications they can take. The problem is we can't require it, because it's an outside thing. And we can't ask for scores because it's not ours – it doesn't belong to us. All that we can do is, if they are willing, (is ask) if they passed it. They can tell us whether they passed or not and that's about all we've got. It's very limited that way, unfortunately.

For some programs, professional certification, licensure, or accreditation of the individual graduate provides an excellent tool for assessment. Five programs, representing each of the four campuses reported this method of determine graduate learning. One faculty member in a health related field reported that:

> Once they complete the program, they are eligible to sit for a national certification exam. To become an RHIT, but I do get some that have not worked in the field, so they just have an interest in health care, but don't necessarily want to do hands on … And when they're completed with the program, they're able to sit for their national exams. I carefully monitor results on the exam and that also helps me to assess the program.

In addition to nationally normalized certification examinations, some employers have a testing requirement that may provide feedback to the program for use as an assessment tool. An instructor in an online mathematics support course indicated that:

> We had input from the field that said, we never use that math, so they didn't cover it. Then we had four of five of our graduates not pass the

> math section to work for Exxon-Conoco. We had a couple not pass the math section for the first time in six years or whatever. Well, we heard about that. Then we pretty much were able to point out what why [this occurred and why math was needed].

For over 60% of programs within the MUS system, licensure, certification and employer-based examinations of their graduates provide summative feedback about the strengths and weaknesses of their distance-delivered programs. For programs that do not prepare students for external testing, a number of other summative evaluative procedures had been put in place to assess overall program quality.

Evaluation of Student Success

Project or Capstone Course. As with traditional face-to-face programs, the use of a capstone course or course that includes a comprehensive project or outcome that demonstrates that the student has accomplished the desired learning outcomes for the program is often used. These comprehensive courses can serve as a vehicle for outcomes assessment. Capstone course assessment was reported by over 75% of the participants in this study. A faculty member in a health-care field reported that:

> There is also a capstone course in the program. So that is basically a review of the entire program. I go through all of the domains that are covered in the RHIT exam, and review. There's a multitude of questions to help prepare them for that certification exam, and that's another tool I can use to assess.

A faculty member in a graduate online program reported that:

> We have a 100% online masters in curriculum studies and if they want to take face-to-face we kick them out of that program and make them take the other one – which can be online or face-to-face. They have to choose. There [are] fewer credits in the online program, and there's no comprehensive exam, but there is a 3-credit mini-thesis. There is a

> comprehensive exam in the face-to-face program. In our traditional program, we rely on that comprehensive exam as the exit requirement, and in our online program we do not have that so what we've done is in the first semester of the program we share with the students what they're expected to do in the culminating mini-thesis class and advise them on beginning to work on that during their entire program. That course is called professional project – is three credits – is the means that we're using to assess the program.

Similarly, a faculty member/administrator for a communications program reported that:

> … we have an outcomes course which is required for the … degrees, whether you do online or on campus. They write a program analysis for us, they tell us which classes were helpful and which classes were useless for them. Just because of the differences in possibilities in assignments depending on the (method of) delivery. So we have that (capstone) class, which is called applied research. And in its students do essentially an internship or they can do a research project. And at the end of [the internship] we do both employer [interviews] and I interview students – the student [also] writes a paper [detailing the internship experience].

One method of evaluating student learning in a degree program is to evaluate a collection of artifacts presented by the student. Creation of a portfolio during a student's program of study allows a comprehensive evaluation of student learning over, potentially, a student's entire program of study. Portfolios created as a part of a capstone course are in place at several schools for the programs included in this study. Roughly 70% of the programs studied included a portfolio to evaluate student learning. A distanced education administrator reported that; "… I can see a range of places or programs that I would consider a more broad-based view of assessment through the use of portfolios, combined with some quantitative test assessment data as well."

Similarly, an administrator in a health-related field reported that; “They do have a public defense of their portfolio with a review that they’ve done in their courses and are evaluated.”

And some distance programs report that they are moving in that direction – as indicated by another distance education administrator.

> We were going to use ePortfolios. Now the new Desire to Learn will support that. It’s pretty easy to map them and they have a record. [And the Desire to Learn system is] keeping it for you, so all I have to do is run a report. Because it was more manual and intimidating, faculty buy-in has been very difficult, for that particular concept. How do you map it out and go back and track it?

Class Performance in Specific Courses. Faculty members often use coursework as a method to determine program effectiveness. Course grades earned by students are a simple, readily available metric to measure student success. In addition to overall course grades, more definitive information may be obtained from overall student performance in a particular assignment that addresses a desired student learning outcome. Similarly, performance on a portion of an examination that seeks to examine student learning of a specific knowledge or skill element that is a program goal. (Goldstein, G.S., Spring 2007) An example from a communications program at a four-year campus reports that:

> …they are telling me about the movie. When they do their second write-ups, they’re using theories – they come up with a hypothesis. They explain the different roles and tactics used so, another way that I do this is I go through the objectives for the class. And so when I give a final exam those goals and objectives are on the exam. So they have to answer, when it says, what is case management? – they have to be able to say, what is case management?…
>
> And I think this is getting to what we’re to talk about. Course by course it’s relatively easy to do assessment. And I even do internal assessment in my online course per course. For instance I’m teaching a

> law class and at the beginning I'm asking them 'What do you know about the law?' and at the end I say 'what do you know about the law now?' [it is] about the change and that information gives me a really nice report.

Another faculty member in that program reports that:

> We have … four [aspects]. One is the student's understanding of the cognitive material. In the case studies their ability to apply the theory to practice and on campus we do speaking – online it's harder to do. We look at chats and discussion threads and then finally writing convincing prose would be the four major things we look at.

A Graded Internship as Part of the Program. Work experiences like internships or cooperative education work opportunities provide another important assessment tool for online programs. A relatively small number (there are four programs included in this study) reported using internships as part of the program and of the assessment process. The challenges with coordinating these opportunities, some potentially at a great distance from the host campus and the instructor, pose particular challenges.

Opportunities for students to enter the work environment on cooperative education or internship experiences provide significant input from both the student and the employer on how preparation of the potential graduate is progressing. As reported by one faculty member in an online medical program:

> [Students] go do internships as the last piece of their (program). All of my programs have internships built in, so the last semester that they're in the program when they've had all their coursework, which we feel has prepared them to do their specific job, then they go to an internship in a facility similar to the facility that they might work in. And I get an evaluation of the student. And when they do their internship they have some very specific things they need to do and be evaluated upon, pieces of the job. So when they go for medical transcription internship, they sit there and do transcriptions just like any other professional. They have some other parts they may do as students, but I get very specific feedback from the employer.

This program uses employer surveys as an evaluation tool. Coordination for internships for the online program poses additional challenges of coordination. Many of the students participating in the online program may be located in other states and potentially other countries, but are viewed as a very important part of the program assessment effort.

And a faculty member/administrator with another online medically related program indicated that, "… but our students are required to do an internship. And we do an evaluation of the internship sites to see (if) our students are prepared, what they did that worked well."

The challenges associated with students at widely disbursed student populations are met and addressed at another program:

> We have an international student. We did that through email, but the phone conference is the best. Because the way we do it face to face is that the faculty advisor, the student, and the employer are all in the room. It's really simple – What are the strengths of the student in the internship? Where could the student improve? What skills? And we ask the student, what could this internship have done that would have enhanced your experience?

Survey instruments are used to determine student opinions of the internship experience and to determine the opinion of employers or internship supervisors regarding the preparation of student interns as demonstrated during the internship. Both student surveys and employer surveys provide valuable insights to the preparation provided by the academic program. An instructor in an online medical program reports that, "The surveys I get from internships are all electronically done." While surveys are used as a tool to provide feedback for internship experiences, they are also used extensively in

course and program assessment. The frequency of discussions regarding surveys as a component of program assessment led to the decision to include it as a separate theme.

Surveys

Only five of the programs in this study included collection of student graduate or employer survey information. While this information provides only self reported opinion, it can serve as valuable feedback for program improvement.

Course-level Evaluation

Evaluating student satisfaction with the course and student opinion as to the quality and value of the distance program is accomplished most often using the same survey techniques used to evaluate non-distance instructional modes. These student evaluations can and are used to determine student opinion of individual courses, complete programs and of the overall performance of the offering institution.

Course evaluations are often blended with and identical to instruments used for institutional assessment of all courses. For example, an online program administrator reported that:

> The thing we do every semester is the course evaluation. Our course evaluation happens at the end of every semester in every class. It's an online survey tool or instrument that's put out there with a link that students … The faculty put it in the class, students take part in it. It's the standard eval that all classes go through

And another reported that, "Right now online for sure, and even most of our on-campus courses, it's assessed one time. The student survey at the end of the course. And I don't even get that back until April."

A faculty member with considerable experience in the delivery of online instruction indicated that, “We have evaluation instruments too and we get feedback about what’s going well and poorly – that kind of thing and we use that kind of information”

And a faculty member/administrator in one of the medical related programs reported that, “We of course do course level surveys every semester for every class. Our distance Ed department sets those up and those are all done anonymously and electronically – through distance Ed.”

These class level surveys are difficult to use consistently in a program level assessment however. Course evaluations may be controlled or effected by faculty collective bargaining agreements. As an online program administrator stated:

> … the collective bargaining agreement impacts this. But the students have to do it right near the end and it comes up in eCollege. And they don’t go on until they complete the survey . I get a good response that way. The bad news is, and this probably came up with other folks, … it doesn’t go to the Chair. It doesn’t go anywhere. It only goes to the faculty (member). And that’s a technical issue, but we are working that out. … So yes, we have an assessment, but it doesn’t go past the faculty. I don’t know how effective it is . … That will change for us as we move to D2L.

In addition, response rate tends to be low unless drastic measures are taken. Another online program administrator reported that:

> … and the feedback. The time that it took administration to send those out, and send reminders to collect them. To include self-addressed envelopes. (response rate) is down from what the on-campus would be. For sure, because you’ve got a captive audience when you go into the classroom and collect them all. [a return rate of] 35% to 40% is about what we get. It’s not bad, it’s not great, but it’s (in place).

And from another institution at a program level, a faculty member reported that:

> … we used course evaluations from students to help us determine who is to be teaching and who is not. We encourage students to fill those things out because it does make a difference. While that's an individual course, of course eleven courses make up the program so they have to be well taught and relevant and meaningful.

Program-level Evaluation

And survey information as to how the overall online experience was supported and delivered to provide useful information for online program administration. As reported by one administrator:

> One of the things I did this spring was survey students to determine how the school was doing as a whole. That includes administratively, advising, would they recommend our programs to someone they know, how they found out about our programs. Just getting a little more information on that.

Survey implementation which is integrated with regular institutional practice may go beyond what programs do themselves. As reported by one online instructor,

> The same folks do it and it happens as a matter of course. We're given the data back from student services when they have those. They do graduate surveys and employer surveys. She gives us the numbers for each program so we have that feedback from student services.

In addition to course evaluations, student surveys asking about online course administration and support may provide additional valuable information about the overall service provision of the distance program. As indicated by a distance program administrator:

> I ask a total of 30, 35 to 40 questions and I have to use that in my accreditation report. That's the one that tells me that 98.5% of our students every semester got the technical support they needed or said it was not applicable to get them online and through their classes. 99% of them said that they had access to the bookstore …

Additional Work Needed

Essentially all of the participants expressed some dissatisfaction with the assessment process and indicated that additional work was desired by the faculty and administrators involved. To some extent this is typical of academic professionals who continually seek optimum performance in their academic programs, but for some this expression was a genuine belief that the current efforts were not adequate or that they could be improved.

Although the programs included in the study were identified as being successful, most also indicated that they had additional work to accomplish in the area of assessment. A senior faculty member at one institution reported that:

> I wouldn't say we have a perfect system – I really value the student's input on how to evaluate the program and constantly working to do that. It's still new enough that we're willing to change our assessment system if we see reasons to change.
>
> [Our administration] is excellent at leading the distance education program on our campus and hiring people who are good at providing in service workshops and learning for online instructors. The negative piece is that no one is required to take them… That's a frustration.

A faculty member/administrator at another school indicated that:

> The thing that keeps popping up that bugs me is we still don't have this competency-based and how we do measurements on it when they're finished. I just started development of an alumni survey. We have not been good at tracking where alums are so that's our biggest challenge, is developing a database to go to alums.

At another school, a faculty member indicated that:

> We do have a lot of embedded assessment. But what we don't have and what I know we need to work toward is a more systematic process. We do informally ask our students, and we don't have a way to, again, my big

> word is systematically do this. So we're doing pieces, but we just don't have the flow. We don't have a flowchart of assessment.
>
> The online program administrator at that school indicated that,
>
> … One good thing that (we) did right when we got started was focused on programs – not individual courses. And after all, we offer programs we don't offer courses really, as a University, but the assessment measures aren't in place.
>
> … assessment kind of happened haphazardly as did the whole program. But now, as we know, we need to coalesce and move forward. Assessment is really a big part of it. We're not as far along with that as we'd like to be, as I would like to be, but it's absolutely something that – it's at the top of the list.

Clearly, these successful programs have taken important steps toward creating a viable program assessment process, but participants are also aware that the elements need to fit together in a system that can use the feedback from assessment to continually improve the program's quality.

Summary

The results from these interviews have provided a fair insight into the current state of assessment of online programs in Montana. Given that the participants were drawn from institutions of vastly different sizes and missions, these interviews provide the basis for a number of recommendations addressing concerns voiced by the participants or addressing issues that emerged as potential problems in the delivery of distance-programs. Chapter 5 summarized the results of this study and discusses the implications of the research for research and practice.

CHAPTER 5

CONCLUSIONS

Introduction

This study seeks to answer the question of how faculty and administrators in the Montana University System assess online degree programs and how they expect to implement program assessment when the maturity of the program reaches a level that enables them to do so. The purpose of this comparative case study is to examine models of distance-delivered program assessment as they exist in successful programs within the Montana University System. The focus of this qualitative case study was program level rather than course level assessment processes. This study also examines, to a limited extent, how program assessment of distance-delivered programs are influenced by the on-campus program assessment which is currently in place within the selected institutions.

The early writers on assessment in higher education, Catherine Palomba and Trudy Banta define assessment:

> Assessment is the systematic collection, review, and use of information about educational programs undertaken for the purpose of improving student learning and development. (Polomba, C.A. & Banta, T.W. 1999c)

Polomba and Banta go on the say that, "To ensure that assessment is a faculty driven activity, faculty must have responsibility for carrying it out" (Polomba, C.A. & Banta, T.W. 1999d).

The assessment of academic programs for the purpose of maintaining program quality is therefore generally accepted as being the responsibility of the faculty members

in the program and the administrators charged with supervising the delivery of programs and of the program faculty. (Comeaux, P. 2005). Therefore, members of these groups from selected units of the Montana University System were interviewed. These interviews were transcribed and analyzed for common themes. From these common themes several recommendations emerged.

Generally, program assessment consists of three aspects: design of the program to provide a clear intended outcome for students and to provide a delivery mechanism to accomplish these goals; performing some type of measurement to determine progress toward or meeting those program goals; and finally a review of the data with recommendation for needed program changes in order to address shortcomings in accomplishing program objectives. This study has examined how these aspects of program assessment are accomplished in a cross-section of institution types throughout the Montana University System.

This study intended to answer three questions;

1. How are current program faculty members/administrators assessing instruction in their online programs and how would they like to assess instruction in these programs if time and resources allow?
2. How are current program faculty members/administrators assessing student learning in their online and distance programs? Again, how would the assess student learning if/when resources allow?

3. How are faculty members in distance and online program delivery supported in developing their courses and programs? Further, how are faculty members enhancing their own skills to deliver distance and online programs?

Assessing Online Programs/Instruction

A majority of the programs identified for this study were able to use external criteria for establishing program goals. Each of the programs that were designed to meet the needs of the medical service community was able to use objectives identified by national organizations. These goals are related to a certification or accreditation of the academic program based on compliance with the criteria set by these organizations. Although none of the distance programs included in this study had been accredited at the time of this study, many program leaders expressed the intent to complete the accreditation process. Most of these accreditations require much more than simply meeting program objectives, but the quality of the accredited programs is largely measured by accomplishing these program objectives.

Some of the programs included in this study, notably the communications, education and general education programs rely on local or state-level groups to identify the program goals. Since these program goals were developed by the institutional experts in these fields, many are based on nationally recognized standards for the disciplines. This faculty-based objective identification is consistent with the normally implemented assessment plans for all MUS programs, regardless of delivery modality.

A single technical program used both curriculum and objectives developed by a major corporation that is viewed as a leader in the technical field. This approach

separates faculty from the need and ability to directly control what is taught and how it is delivered to students. This off-the-shelf method of creating and delivering a program curriculum is considered very effective in delivering a consistently high-quality graduate to the industry (CISCO Network Academy, 2010.)

The groups of people who actually use the data collected in the assessment process are typically either the faculty members in the program or an external industry advisory board. In any event such external advisory boards appear to be a part of every program examined in this study and are actively involved in the review of the results if not in the creation of the assessment report itself. These program advisory groups serve to provide external professional credence to the results and ensure constituent needs are being met by the distance programs.

Assessing Student Learning

A variety of methods are used in the system to document students' ability to meet the objectives of the program. A very effective method is through the use of a nationally normalized certification or credentialing examination. Both the medical programs and the network technician programs use the results of this type of examination to document graduate success – although the actual results of the examinations are typically reported to the institution as a simple pass/fail result. This information is not routinely available to the institutions due to privacy concerns and often must be requested from graduates on a voluntary basis.

Capstone courses resulting in either a research project or a report from a field experience is the next most prevalent method of determining program outcomes. Since

these courses are offered/required as part of the program of instruction, the program faculty members are typically actively involved in the development of tools used to determine student quality and in the examination and evaluation of the result of these reports.

Support for Faculty/Faculty Development

Technical support for both teachers and students was a priority for each of the campuses included in this study. Structured training was provided by the institution to ensure that the faculty member delivering instruction was able to use the Course Management System used in delivery of instruction. At one campus significant inducements and a very structured training was considered mandatory for online instructors, at the other campuses the training was very structured, but was considered voluntary after an initial drive to kick start distance programs had been completed.

Preparation and support of students to participate in online or distance instruction was less structured, and, as indicated in recommendations, both preparation and ongoing support poses a significant challenge to the delivery and success of online programs.

Other Assessment Aspects

Other aspects of the assessment process as it occurs on college campuses were discovered as well as the direct assessments above. Included are the uses of course level student survey results to assess the quality of the courses that make up the program. The use of an input-quality assessment tool like the Quality Matters program may ensure

overall program success by ensuring that critical components of the online course are up to a standard level and thoroughly considered in the discussion of program quality.

In each case of the programs studied, alignment of the online course assessment as part of the overall campus assessment plan existed. Due primarily to the campus accreditation requirements, all four campuses indicated that the online program assessment was incorporated into an integral part of the campus-wide assessment plan and reporting program.

Limitations

Some limitations of this research study are due to the limited numbers of campuses and programs included in the research. The method of selection of participant campuses relied on expert advice from Dr. Thomas Gibson who consulted with the research committee. While this resulted in an excellent cross-section of the programs and campuses within the Montana University System, it was not exhaustive, and did not include many of the active players in distance education in Montana. Due to time and resource limitations, not every campus and every program were included in the study.

Within these participant institutions, the selection method of participants for interview was limited to those faculty and administrators who volunteered to participate. This self-selection process resulted in a group of very motivated professionals who were willing to take the time out of very busy schedules to participate. But as a result, a broad statement of distance program assessment activity cannot be made.

Furthermore, the interview process itself was a limiting factor in this study. While the interview process was adapted to some extent to more fully explore the topic, consistency in the research process dictated that a significant modification of the questions was avoided. As the process proceeded, the question of where and how documentation of these assessment results was being accomplished and how a longitudinal study of program quality and progress was facilitated arose. A follow-up study to determine some of these answers may be of value.

In general, this researcher found that among these successful online programs and institutions, assessment is an integral part of the program design and is being accomplished as a routine part of program delivery and maintenance. The methods used to implement this assessment reflect those typically used in these types of programs, regardless of delivery methodology. Some methods of program assessment are particularly difficult for students at a distance, but in general these challenges can be overcome by increasing the resource commitment in personnel time to work with distance students. For example, telephone and email communications with internship supervisors at far distance sites are used to replace on-site visits and personal interviews with employers.

Recommendations

Several general recommendations for the continued success of distance programs in the state were identified during the conduct of this research project. These

recommendations were developed as a result of the overall research and from participants in this study.

Design from Standards

In moving forward with additional online program offerings, it is clearly a successful strategy to design a new program based on establish, preferably nationally recognized standards for program and student learning outcomes. Faculty who are in the process of developing a new online program should begin the process of program design with assessment and perhaps accreditation in mind. Assessment of the program and of students in the program accomplishing the desired goals of the program should be considered from the outset, with generally recognized program and student outcomes. This may have the advantage in terms of assessment in that licensure or other performance measures established by the discipline or by industry can provide assessment measures as the students or graduates attain the other credentials necessary for their chosen profession.

Ascertain Student Readiness for Online Instruction

As indicated in chapter 4 of this study, a key factor in the success of students in an online or distance program may be identified prior to the beginning of an online degree program and will provide a means to advise students who may be underprepared for success. In particular, an assessment of a student's general technological preparedness to deal with the distance delivery technologies is vitally important. This extends beyond the ability to navigate a specific Course Management System (CMS), since the available

products are continually evolving and decisions by the institution offering the online instruction may result in a complete change of CMS during a student's career, the ability to deal with a new system may be critical to a student's success. In addition, student characteristics such as self-motivation, self-direction, and time management skills should be clearly identified as prerequisites and an effort to both determine a student's abilities or to provide training to aid in student success is important. Only a single program of those included in this study provided an on-campus experience as a prelude to embarking into a substantially distance mode of instruction. A single or perhaps multiple of such experiences can provide a method to connect students and faculty and the institution as part of the learning process.

While one institution included in this study had an available optional online quiz to identify some requisite knowledge, skill, and dispositions to aid students in self-selecting an online program, this is a voluntary measure and decidedly not standard among program providers in the state. A method of evaluating potential distance program students should be developed and enforced as a threshold for entry into an online program. This will serve to limit expense to both the student and to the system, and help reduce the level of frustration in dealing with the technology needed for distance delivery and help advise students who may be unprepared to succeed in the online programs or who lack the maturity and self-directed characteristics needed to be successful.

Faculty Support

Another aspect of successful programs is the level and availability of support to faculty starting from the design of an online program and continuing to the on-going technical and administrative support needed in offering online instruction. Faculty members offering distance instruction may or may not be able to provide their own technical support, but having the availability of a technical advisor in both the curriculum and course design but also in use of technology to aid in the delivery of the instruction is an important commitment from an institution to the success of distance programs. Training is often offered, but the importance of ongoing technical support cannot be understated. In addition, routine administrative functions are often left to the faculty member in addition to the need to deliver content, provide routine feedback to the students and to perform grading. In providing administrative or even simple clerical support would allow faculty members to focus on their areas of expertise.

Peer Review

During interviews at least one standard of a peer review mechanism 'Quality Matters' was identified. While this service provides valuable standardization of course delivery quality, it represents a significant expense to undertake on an Institution by Institution level. Considering the depth of experience and wealth of knowledge within the university system, a Montana University System quality group could be developed to take advantage of resources already in the system in order to develop and implement a standard of course review and quality assurance.

Participant Recommendations

Participants in this study often specifically discussed their ideas for improving the assessment of distance delivered programs throughout the MUS system. Through the process of combining comments and suggestions from multiple participants, I distilled a number of recommendations to address the broadest number of participant concerns possible.

Ensuring Student Success

Student Support

Due to the nature of distance-delivered programs, and the fact that each institution must provide student services ranging from financial aid services to student support and tutoring, as well as library and tech support services, an economy of scale might be achieved by centralizing each of these services. In essence, they would provide seamless support for all distance education students in the state. These services would not necessarily require new personnel housed in the Montana Office of the Commissioner for Higher Education, but might be distributed to institutions who already have these services available to their own students, but which now struggle to provide these services to the online community, as well. For example, financial aid services for Montana University System distance students might be centralized at one institution, with technical support at another, and tutoring at another. Thus, each institution need only excel at delivering distance services in one area, relying on other institutions to meet other student needs.

This could be a cost-effective approach to service delivery around the clock, every day of the week, without duplicated effort.

Faculty Curriculum/Technical Support

Included in comments among participants was the recognition that teaching and using distance technology requires different course design and delivery methodologies than traditional face-to-face courses. Many of those skilled academics in traditional course design and delivery are facing new challenges in the online and distance world. Since resources abound within the Montana University System in expertise – both in curriculum and teaching as well as in technical areas - the need for individual institutions to either provide these specialized resources in-house or to contract with outside organizations or institutions seems wasteful. By providing coordination and funding, the Montana University System might leverage these resources to provide system-wide training and support in the development of a robust online presence.

Learning Object Library

Another common statement by participants regarded the desire for, and the development of, a resource for instructors to use. While efforts are being made by single institutions, a coordinated effort to collect and provide high-quality resources for institutions throughout the state is in order.

Additional Research

Additional research is recommended, both to increase the scope and participant pool, and also to account for the longitudinal changes in the distance delivery community within the Montana University System. Resources to accomplish this expanded research are modest, but potential gains still seem to be large.

Repeat this Study

A repeat of the study conducted as part of this research could provide information first – on the changes that may have occurred since the original research was conducted that may inform the recommendations above. Secondly, it could expand the scope of the research to include all Montana University System institutions that engage in distance-program delivery. As a result, a more complete understanding of the value of the recommendations may emerge.

Quantitative Study

Many of the issues that emerged in this study will be amplified and expanded by a quantitative component. The value and need of the recommendations included above will be clarified for decision makers by survey information and data collection from distance programs in the MUS.

Survey of State Demand

A survey of the Montana population may aid in determining the degree to which the need for distance programs are being met and the need for expanding distance

delivery options. A second part of that study may include a series of questions to aid in determining the type and level of programs that are viewed as required or desired by the statewide student population.

Researching the Compensation Model

Most institutions provide a compensation model for instructors in distance programs based on existing traditional bargaining agreements. The amount of compensation as well as the number of students allowed in an online section varies throughout the state. Research into the compensation practices of institutions as well as the policies on course loads could serve to standardize and improve the overall quality of programs by providing adequate compensation and a reasonable workload for instructors.

Summary

This study indentified the methods of assessment being conducted at a cross-section of programs and institutions within the Montana University System. Although results cannot be generalized, they serve as a good starting point to determine best-practices within the system.

Chapter Summary

This chapter reviewed the results of the qualitative research study and identified the most common themes and methods of assessment being practiced at four of the institutions within the Montana University System.

REFERENCES

Allen, I.E., & Seaman, J. (2006, November). *Making the Grade - Online Education in the United States, 2006*. Retrieved March 14, 2008, from The Sloan Consortium Web site: http://www.sloan-c.org/publications/index.asp

Allen, I.E., & Seaman, J. (2007, October). *Online Nation - Five Years of Growth in Online Learning*. Retrieved March 14, 2008, from The Sloan Consortium Web site: http://www.sloan-c.org/publications/survey/index.asp

Allen, I.E., & Seaman, J. (2010, November). *Class Difference$ – Online Education in the United States – 2010*, Retrieved November 16, 2010, from The Sloan Consortium Web site: http://sloanconsortium.org/sites/default/files/class_differences.pdf

Allen, M. J. (2004a). Assessing Educational Outcomes. In *Assessing Academic Programs in Higher Education*. Bolton, Massachusetts: Ankar Publishing Company.

Allen, M. J. (2004b). Direct Assessment Techniques. In *Assessing Education Programs in Higher Education*. Bolton, Massachusetts: Ankar Publishing Company.

Allen, M.J. (2004c). Indirect Assessment Techniques. In *Assessing Education Programs in Higher Education.* Bolton, MA: Ankar Publishing Company

Astleitner, H. (2002). Teaching Critical Thinking Online. *Journal of Instructional Psychology*, *29* (2), 53-75.

Beaudoin, M. F. (1986). Distance Education Does Work. *The Education Digest*, *51*, 56-57.

Belfur, K. (2002). An Evaluation Framework for the Development Process of an Online Curriculum. *E-Learn 2002 World Conference on E-Learning in Corporate, Government, Healthcare, & Higher Education*, *1*.

Bernard, R. M., et al. (2004, fall). How Does Distance Education Compare With Classroom Instruction? A Meta-Analysis of the Empirical Literature. *Review of Educational Research*, *74* (3), 379-439.

Bernard, R.M., Abrami, P.C., Lou, Y., & Borokhovski, E. (2004). A Methodological Morass? How we can improve quantitative research in distance education. *Distance Education*, *25* (2), 175-198.

Bers, T. (1999). The Impact of Distance Education on Institutional Research. *New Direction for Institutional Research*, (103), 61-78.

Blignaut, A.S, & Trollip, S.R. (2003). Measuring Faculty Participation in Asynchronous Discussion Forums. *Journal of Education for Business*.

Carnevale, D. (2001, April 13). Assessment Takes Center Stage in Online Learning. *The Chronicle of Higher Education*, *47*.

Chang, F.C. (2002). Intelligent assessment of distance learning. *Information Sciences*, *140* (1), 105-125.

CISCO Network Academy (2010). *About Network Academy*, retrieve online November 24, 2010 at http://www.cisco.com/web/learning/netacad/academy/index.html.

Coe, J.R., & Elliott, D. (1999, fall). An Evaluation of Teaching Direct Practice Courses in a Distance Education Program for Rural Settings. *Journal of Social Work Education*, *35* (3), 353.

Collins, J., & Pascarella, E.T. (2003). Learning on Campus and Learning at a Distance: A Randomized Instructional Experiement. *Research in Higher Education, 44* (3).

Comeaux, P. (2005). Introduction. In Comeaux, P. (Ed.), *Assessing Online Learning* (pp. xix-xxiii). Boston, Massachusetts: Anker Publishing Company.

Creswell, J. W. (1998). Data Analysis and Representation. In *Qualitative Inquiry and Research Design* (pp. 139-166). Thousand Oaks, California: Sage Publications.

Danchek, M.M., & Huguet, M.P. (2004). Designing for the Changing Role of the Instructor In Blended Learning. *IEEE Transactions on Professional Communication*, *47* (3), 200-210.

Dando, P. M. (Sept/Oct 2005). First Steps in Online Learning - Creating an Environment for Instructional Support and Assessment. *Knowledge Quest, 34* (1), 23-24.

Department of Education. (2006). Computer and Internet Use by Students in 2003 - Statistical Analysis Report. *National Center for Educational Statistics Report.*

Diaz, D.P. (1999, fall). Students' Learning Styles in Two Classes. *College Teaching, 47* (4), 130.

Diaz, D.P., & Cartnel, R.B. (1999, fall). Student's Learning Styles in Two Classes. *College Teaching*, *47* (4).

Dyrli, O. E. (2000). The 'Webification' of College Courses: Choosing a Management System. *Matrix, 1* (2), 23-26.

Dyrud, M. A. (2000). The Third Wave: A Position Paper. *Business Communication Quarterly, 63* (3), 81-103.

Edwards, C., & Fritz, J.H. (1997, April). *Evaluation of Three Educational Online Delivery Approaches*. Retrieved from Mid-South instructional Technology Conference Web site: http://www.mtsu.edu/~itconf/proceed97/online_3.html

Eisinger, J. (2000). Education Evolution. *Association Management*, 52-59.

Ewell, P. T. (2002). An Emerging Scholarship: A Brief History of Assessment. In Banta, T.W. (Ed.), *Building a Scholarship of Assessment*. San Francisco, California: Bass.

Freddolino, P.P., & Sutherland, C.A. (2000, winter). Assessing the Comparability of Classroom Environments in Graduate Social Work Education Delivered via Interative Instructional Television. *Journal of Social Work Education, 36* (1), 115.

Gaide, S. (2006). ePortfolios Supercharge Performance-Based Student Assessment. *Distance Education Report, 10* (5), 4-6.

Garcia, J. A., & Floyd, C. E. (2002, fall). Addressing evaluative standards related to program assessment. *Journal of Social Work Education, 38*, p369 (14).

Gay, L.R., & Airasian, P. (2003). Introduction. In *Educational Research - Competencies for Analysis and Applications* [7e]. New Jersey: Pearson Education, Inc.

Geerts, G.L., Waddington, B.A., & White, C.E. (2002, spring). Stevie: A Dynamic, Between-Instructor Collaborative Internet Tool for Learning Cardinalities. *Journal of Information Systems, 16* (1), 75-89.

Gibson, T.H. (2006a). *The Montana BORHE Academic & Student Affairs Committee eLearning & Distance Education Update*. Retrieved November 15, 2007, from Montana Board of Regents Web site: http://mus.edu/board/meetings/2006/06-May/5-06AgendaFullBOR.pdf , p 350-377.

Gibson, T.H. (2006b). *Appendix III&IV - Evidence of Quality in Distance Education Programs*. Retrieved March 14, 2008, from Montana Board of Regents Web site: http://mus.edu/board/meetings/2006/06-May/06-May.asp/05-06AgendaFullBOR.pdf, p 356-371.

Glesne, C. (1999). *Becoming Qualitative Researchers*. New York, New York: Addison Wesley Longman.

Greene, P. K. (2001, winter). Distance Learning: Instructional Strategies that Work. *Academic Exchange*, 122-127.

Goldstein, G S (Spring 2007). Using classroom assessment techniques in an introductory statistics class. *College Teaching*, 55, 2. p.77(6). Retrieved August 28, 2010, from Expanded Academic ASAP via Gale: http://find.galegroup.com.proxyhv.lib.montana.edu/gtx/start.do?prodId=EAIM&userGroupName=mtlib_1_989

Harrington, D. (1999, fall). Teaching Statistics: A comparison of Traditional Classroom and Programmed Instruction/Distance Learning Approaches. *Journal of Social Work Education, 35* (3), 343.

Knowlton, D. S. (2001, winter). Discussions: A Student-Centered Approach. *Academic Exchange*, 162-166.

Kuh, G. D., Gonyea, R. M., & Rodriguez, D. P. (2002). The Scholarly Assessment of Student Development. In Trudy W. Banta (Ed.), *Building a Scholarship of Assessment* (p 100-130). San Francisco, California: Bass.

Law, J., Hawkes, L., & Murphy, C. (2002, fall). Assessing the On-Line Degree Program. *New Directions for Teaching and Learning*, *91*.

Leh, A.S. (2001). Computer-Mediated Communication and Social Presence in a Distance Learning Environment. *International Journal of Educational Telecommunications, 7* (2), 109-128.

Lockee, B., Moore, M., & Burton, J. (2002). Measuring Success: Evaluation Strategies for Distance Education. *Educause Quarterly*, (1), 20-26.

Lockhart, M., & Lacy, K. (2002). An assessment model and methods for evaluating distance education programmes. *Perspectives*, *6* (4), 98-104.

Lorenzetti, J.P. (2005). Lessons Learned About Student Issues in Online Learning. *Distance Education Report, 9* (6), 2-4.

Mash, R.J., et al. (2005). Assessment of the quality of interaction in distance learning programmes utilising the Internet (WebCT) or interactive television (ITV). *Medical Education, 39,* 1093-1100.

McCarthy, S.A. & Samors, R.J. (2009). Online Learning as a strategic Asset – Volume I: A Resource for Campus Leaders. Retreived online on February 10, 2010 from the Sloan Consortium Website at http://sloanconsortium.org/sites/default/files/OnLineLearning.pdf

McFall, J.P., & Freddolino, P.P. (Spring/Summer 2000). Quality and Comparability in Distance Field Education: Lessons Learned from Comparing Three Program Sites. *Journal of Social Work Education, 36* (2), 293-307.

McGorry, S. Y. (2003a). Measuring quality in online programs. *Internet and Higher Education, 6*, 159-177.

Meiduser, D., Nachmias, R., Lahhav, O., & Oren, A. (2000). Web-Based Learning Environments: Current Pedagogical and Technological State. *Journal of Research on Computing in Education, 33* (1), 55-74.

Murphey, T. P., & Dooley, K. E. (2006). Determining E-Learning Competencies: Using Centra to Collect Focus Group Data. *The Quarterly Review of Distance Education, 7* (1), 75-82.

NCES. (2003, July). *Distance Education at Degree-Granting Postsecondary Institutions: 2000-2001*. Retrieved December 17, 2007, from National Center for Education Statistics Web site: http://nces.ed.gov/surveys/peqis/publications/2003017/

Norman, G.R. (2004). Learning in Practice. *British Medical Journal, 328*, 999-1001.

OCHE (2010). *Montana University System Distance Learning – One Pager*. Retrieved online November 18, 2010 from http://mus.edu/data/briefs/DistanceLearning-OnePager.pdf

Osika, E. (2006). Assessing Student Learning Online: It's More Than Multiple Choice. Online Classroom, 3-7. Retrieved from Academic Search Complete database.

Pace, D. (2004). An Amateur in the Operating Room: History and the Scholarship of Teaching and Learning. *merican Historical Review*, 1171-1192.

Palomba, C. A., & Banta T. W. (1999a). Using Performance Measures and Portfolios for Assessment. In *Assessment Essentials* (1st ed.). San Francisco,: Bass.

_____. (1999b). Relating Assessment to the World of Work. In *Assessment Essentials* (1st ed.). San Francisco, California: Bass.

_____. (1999c). The Essentials of Successful Assessment. In *Assessment Essentials* (1st ed.). San Francisco, California: Bass.

_____. (1999d). Encouraging Involvement in Assessment. In *Assessment Essentials* (1st ed.). San Francisco, California: Bass.

Pantazis, C. (2002, spring). Maximizing E-Learning to Train the 21st Century Workforce. *Public Personnel Management, 31* (1), 21-24.

Pearson, J., & Trinidad, S. (2005). OLES: An instrument for e-learning environments. *Journal of Computer Assisted Learning, 21* (6), 296-404.

Perreault, H., Waldman, L., & Zhao, M.A. (July/August 2002). Overcoming Barriers to Successful Delivery of Distance-Learning Courses. *Journal of Education for Business, 77* (6), 313-318.

Philips, V. (2004). Distance Degrees. *TD*, 72-74.

Phipps, R., & Merisotis, J. (1999). What's the Difference - A Review of Contemporary Research on the Effectiveness of Distance Learning in Higher Education. *The Institute for Higher Education Policy*.

_____. (2000). Quality on the line: Benchmarks for Success in Internet Based Distance Education. *The Institute for Higher Education Policy*.

Piccoli, G., Ahmad, R., & Ives, B. (2001). Web-based Virtual Learning Environments: A Research Framework and a Preliminary Assessment of Effectiveness in Basic IT Skills Training. *MIS Quarterly, 25* (4), 401-426.

Quality Matters (2010), Quality Matters Program Rubric, Retrieved August 28, 2010 from http://www.qmprogram.org/rubric.

Roberts, M. (2000). Back in the Loop. *Techniques*, 14-17.

Sankaran, S.R., Sankaran, D., & Bui, T.X. (2000a). Effect of Student Attitude to Course Format on Learning Performance: An Empirical Study in Web vs. Lecture Instruction. *Journal of Instructional Psychology, 27* (1), 66.

Schulte, A. The development of an asynchronous computer-mediated course: Observations on how to Promote Interactivity. *College Teaching, 52* (1), 6-10.

Seay, R., Rudolph, H. R., & Chamberlain, D. H. (Nov-Dec 2001). Faculty perceptions of interactive television instruction. *Journal of Education for Business, 77* (2), 99(7).

Shaeffer, J. M., & Farr, C. W. (1993). Evaluation: a key piece in the distance education puzzle. (ways of evaluating the use of distance education learning technologies). *T H E Journal (Technological Horizons In Education), 20* (9).

Shulman, L.S. (2007). COUNTING AND RECOUNTING: Assessment and the Quest for Accoutability. *Change, 39(1), 20-25*.

Spellings, M. (2006, September). *A Test of Leadership: Charting the Future of Higher Education*. Retrieved February 23, 2007, from http://www.ed.gov/about/bdscomm/list/hiedfutre/reports.html

State of Montana. (9/12/07). *Census and Economic Information Center*. Retrieved September 30, 2007, from Montana Department of Commerce Web site: http://www.ceic.mt.gov/american_comm_survey.asp

Tallent-Runnels, M., Thomas, J. A., Lan, W. Y., & Cooper, S. (2006). Teaching Courses Online: A Review of the Research. *Review of educational research*, *76* (1), 93-135.

Trigwell, K., & Shale, S. (2004). Student Learning and the scholarship of university teaching. *Studies in Higher Education*, *29* (4), 524-536.

Walker, D.A. (1999). A Model for Assessing Assessment. *College Student Journal*, *33*, 439.

Webb, L.I. (2001). An examination of adult learning style preferences and perceived effectiveness of Web-based courses, Dissertation Abstract, DAI, no. *Dissertation Abstract*, *10A*, 32-69.

Wilhem, P. & Wilde, R. Developing a university course for online delivery based on learning objects: from ideals to compromises., *Open Learning, 20 (1)*, 65-81.

Worley, R. B. (2000). The Medium is Not the Message. *Business Communication Quarterly*, *63* (3), 93-103.

APPENDICIES

APPENDIX A

MSU - FULLY ON-LINE PROGRAM DELIVERY

Table 3. Montana University System - Fully On-Line Program Delivery
Fiscal Year Ending June 30, 2005.

Campus and Programs	Total Credits	Method of Delivery	Program Partners	Number of Partner courses
UM – Missoula				
Surgical Technology	66	Online*	MSU-B	7
Library Media Endorsement	25	Online	UM-W	5
Forensic Studies	18	Online		
Customer Relations	34	Online		
Educational Curriculum	37	Online*		
Educational Leadership	36	Online		
Public Administration	36	Online		
(*Denotes on-site lab or class requirement)				
UM – MT Tech				
Industrial Hygiene	37	Online		
Project Engineering Management	30	Online		
Occupational Safety & Health*	128	Online		32
* Note: 30 cr delivered on-line by UM-Tech				
UM Western				
Library Media Endorsement	25	Online	UM-Miss	5
Elementary Education	44	Online		
MSU-Bozeman				
Family Financial Planning	42	Online	7 states	
Educational Leadership	33	Online		
NPTT Curriculum & Instruction	30	Online		
School Library Media	21	Online		
MSU-Billings				
Accounting Assistant	36	Online		
Computer Assistant	47	Online		
Human Resource Management	35	Online		
Human Resource Management “Essentials”	23	Online		
Office Assistant	37	Online		
General Education Requirements	37	Online		
Accounting Technology	69	Online		
General Studies	60	Online		
Human Res. Mgmt – General Applied Emphasis	60	Online		
HRM – College of Business Articulated Emphasis	60	Online		
Applied Science	120	Online		
Business Administration	120	Online		
Communication – Organizational	120	Online		
Communication – Mass	120	Online		
Education (BS)*	120	Online		
Health Administration	120	Online		
Public Relations	120	Online		
Liberal Studies	120	Online	GF-COT/	
Education – Interdisciplinary Studies*	36	Online		

Table 3. MontanAUniversity System - Fully On-Line Program Delivery
Fiscal Year Ending June 30, 2005 (continued).

Campus and Programs	Total Credits	Method of Delivery	Program Partners	Number of Partner courses
MSU-Billings				
Health Admin (MHA)	53	Online		
Post Bac Teaching Cert*	45	Online		
Public Relations (MSPR)	30	Online		
(* Denotes an on-site requirement as well)				
MSU-Northern				
Nursing (AS with 72 cr & BS with 48cr)	120	Online		
MSU-Great Falls COT				
General Education	60	Online	MSU-B	
General Education	60	Online	MSU-B	
Health Information Coding	46	Online		
Health Information Technology	72	Online		
Medical Billing	41	Online		
Medical Transcription	34	Online		
Medical Transcription	64	Online		
Microcomputer Applications	24	Online		
Professional Communications	21	Online		
(plus other mixed delivery programs)				

Derived from Gibson (2006)

APPENDIX B

QUESTION FRAMEWORK

Interview Protocol

Introduction:

My name is Larry Strizich, and I'm a doctoral candidate with MSU-Bozeman's program in Adult and Higher Education. I am also a full-time faculty member at Montana State University –Northern in Electronics and Computer Engineering Technology. {provide a business card} I have also got administrative duties as chair of one of the two colleges at Northern and was responsible for drafting the Northwest Accreditation self-study for last spring's visit and will be responsible for drafting our interim report for this spring.

My dissertation is related to accreditation in that I'm studying assessment. I am focusing on distance programs, and the program in _____ offered by _____ (institution) was recommended by _____ as one that is successful and 'doing things right'. I'm hoping to collect information from exemplary programs to identify some 'best practices'. The Commissioner's office uses the definition of a distance program derived by the Sloan consortium, which defines a distance program as one that is 80% or more delivered using some form of distance technology.

General Program Questions

First, in terms of background, you are currently a faculty member/administrator (pick one) in the _____program at _____. Is that right?

How long have you been a part of that program?

Do you believe your program is at least 80% delivered as a distance program?

How long has the distance delivered part of your program been in existence? How did your department decide to offer this degree via distance?

Can you give me a feel for the typical students who enroll in your program? What kinds of students are in the program?

Can you give me a sense of the flow of your degree program – how are students admitted to the program? Do they complete prerequisites before they get to you and if so, how long does the typical student do that? Once they are in, how long does it take the typical student to finish?

Program Assessment

There is quite a bit of research that has been completed on course level assessment of distance education. I'm interested in assessment that occurs at the program level.

Can you tell me what kinds of assessments are happening in your distance delivered program? Is there a history to how this assessment has been developed over time?

Could you describe the outcomes assessment process used by yourself and by the department?

Student learning is vital to the success of any program and of higher education in general. Is assessment of student learning accomplished by overall program assessments, or is there some other process which is used or should be used to ensure graduates have actually learned what is expected of them?

If student learning is not adequately addressed with the current system of assessment, how would you change it or what do you feel needs to be done to ensure students attain the skills and knowledge they need to be successful graduates.

So what about overall program quality? How do you and your colleagues make sure that your distance program is delivered in a high quality manner?

If you believe the current process is not adequate, or could be improved, what measures would you want to employ to assess program quality, if time and other resources were available to do so?

Is online course assessment integrated with the assessment plan and process for the other non-distance programs offered by _____? And if so, how is it integrated?

Do you believe this relationship with the institution as a whole is effective, or would you change either part or all of how assessment is done at _____?

Faculty Support/Training

In terms of curriculum and course design, what kind of training and support was provided to you to ensure your courses and program adapt to the new method of program delivery and what was the source of this training?

{Course management system training, specific course and curriculum design features, etc.}

Assessment in General:

As you may be aware, regional accrediting bodies, like the Northwest Commission on Colleges and Universities for Montana schools, and 'specialized' accrediting groups like those for Education, Nursing, and Engineering are basing their standards on outcomes based assessment. For many of us, that is a new

approach to the problem, since many of us were used to accreditation being based on inputs, rather than outputs.

Are you familiar with this concept/approach? Can I share an example with you?

Can you describe any training or education you have received on outcomes based program assessment?

{Any from professional organization? Internal/External? Formal Education? – note these are listed to serve as probing keys to the interview.}

Wrap-up:

Is there anything else you would care to add to the discussion of assessment of distance program quality and assessment that might help inform my study?

Could you recommend a program or individual currently in the Montana University System that you believe I should interview to make this study complete?

Thank you for taking the time to talk with me, I will prepare a transcript of our conversation and provide you with an email copy to make sure that it is accurate and complete. You can also provide any additional comments regarding distance education program assessment directly to me.

APPENDIX C

RESEARCH PROTOCOL

Research Protocol

The following steps will be used to guide data collection at each target institution. After identifying institutions and programs:

1. The administration level responsible for distance programs will be identified and contacted by letter, explaining the project and asking for institution assistance;
2. A request for exempt status will be submitted to the campus IRB;
3. Individual faculty members and administrators will be identified for the programs;
4. An interview schedule will be developed with each campus member.

An attempt to meet the participants in their office will be made in each case. During the meeting the following will occur:

1. A brief introduction to the study will be provided;
2. Permission to use a voice recorder and an explanation of the process will be provided;
3. Interview questions will guide the discussion;
4. On exit, the potential for a future contact will be made.

After the interview and transcription, analysis will begin and be used to guide future interviews.