Community College Faculty Perspective On Changing Online Course Management Systems: A Phenomenological Inquiry

Kathleen Eitzmann

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COMMUNITY COLLEGE FACULTY PERSPECTIVE ON CHANGING
ONLINE COURSE MANAGEMENT SYSTEMS: A PHENOMENOLOGICAL
INQUIRY

by

Kathleen Eitzmann

A DISSERTATION

Presented to the Faculty of
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COMMUNITY COLLEGE FACULTY PERSPECTIVE ON CHANGING
ONLINE COURSE MANAGEMENT SYSTEMS: A PHENOMENOLOGICAL
INQUIRY

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University of Nebraska, 2011

Advisors: James King and Allen Steckelberg

This is a phenomenological research study about a college that is changing course management systems for online courses and the experiences that the full-time faculty go through during the transition from one course management system (CMS) to another. The reason this method was chosen was to capture the experiences of the faculty and gain an understanding of the phenomena they experience.

Colleges are seeing a student enrollment shift away from the traditional classroom toward the online environment. In 2008 there was a 17% increase in online enrollments, accounting for 4.6 million online students. Total enrollments were only up 1.2% (Allen & Seaman, 2010). This demand in online learning means colleges have to offer more online courses, train more faculty, and support the technological requirements of online learning. Many colleges purchase a course management system to support their online courses. The CMS provides a consistent format and look for the faculty and the students while also providing instructional tools such as discussion boards, testing, assignment drop boxes, and grade books. When a college changes the course management system then faculty must learn a new system and transition their courses into the new online software.
The research question was: What are the experiences of online faculty as they transition from one course management system to another? Sixteen interviews were conducted with full-time faculty and from the interviews, three themes emerged. The themes related to training, technology, and workload.

The essence of the study was that this transition was an emotional change process for faculty. From the results of the study a process chart is developed and the recommendations include methods to reduce the emotional impact on faculty members.

Currently, there is little research about the effects of changing course management systems. More studies need to be done both with faculty and students. Other future research topics could include a cost study to determine the overall cost including both direct and indirect costs. Another angle would be to research the companies who provide the course management systems and learn what they do to meet the needs of the schools they support.
Dedication

This is dedicated to my family:

Jeff, Derek, and Connor.

Thank you for supporting me during this journey.
Acknowledgements

I would like to thank my advisors, Dr. Jim King and Dr. Allen Steckelberg for meeting with me along the way providing the encouragement and direction needed to keep me moving towards my goal. Dr. King thanks for the continued advising and mentoring even after your retirement. Thank you to Dr. Margaret Latta for being one of my first instructors when I returned to school. Your class provided challenges and motivation to continue along a lifelong journey of learning. Thanks to Dr. Gina Matkin for providing feedback, encouragement, and advice for my proposal.

I would like to thank my family for supporting me during this journey. My son Connor does not even realize that I will now have more time with him because I have been working on this degree since he was two years old. I hope that he will see a difference in the amount of time Mom can spend with him!

I want to thank the participants who gave up their time to be interviewed. This was a very busy time of transition for them and without participants there would be no research study.
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Chapter One

Introduction

Statement of the Problem

Online education provides the flexibility needed by today’s student. Online courses provide students the opportunity to do coursework from home while still working full-time jobs, raising children, and dealing with the day to day demands of their time. Students want online courses. The shift to the online environment has far exceeded the actual overall enrollment increase. In 2007 online enrollments increased 12%, accounting for 3.9 million online students. In 2008 there was a 17% increase in online enrollments, accounting for 4.6 million online students. Overall enrollment was up 1.2% for both 2007 and 2008 so the bigger increase was the actual shift to online courses versus traditional face-to-face courses. Over half of the students in 2008 took at least one online course at a community college (Allen & Seaman, 2010). The demand of online education opportunities means that colleges must add more online faculty and more online courses.

This fast moving adoption of online courses has certainly changed the way in which faculty teach. Eighty percent of colleges surveyed provide some sort of training for faculty teaching online. The types of training varied and included internal training, mentoring, and external training (Allen & Seaman, 2010).

Development of online courses is integrally tied to various software tools and technology systems used to deliver the instruction. Most institutions use a course management system (CMS), sometimes called a learning management system (LMS). For this study, the term course management system is used. A CMS is a web-based software system, specifically designed with both asynchronous and synchronous tools.
and marketed for faculty and students to use in teaching and learning. The longer faculty use a course management system the more they learn about it. They load more and more teaching material and learn more and more functions, growing their teaching “toolbox”. Faculty can access their courses via the internet. They do not have to be on campus or logged into the school’s network. Loading teaching tools, files, etc. in a course management system makes accessing them convenient. Just as the saying goes, “Nothing stays the same,” the question becomes, “What happens to faculty when the college changes the course management system?”

Changing course management systems jerks the independent variable, the course management system, out from under faculty and they are left with materials in electronic formats that may or may not transition into the new course management system. The faculty now also have to learn a new system. Faculty have to spend time converting and revising their courses in the new course management system. Faculty will have to answer many questions from students about the new system once it is live. This transition is a big process and takes time. The amount of time varies from instructor to instructor depending on how many courses and how much content each instructor has in each course, the type of files, and the instructor’s technology savvy. This paper describes the experiences full-time community college faculty who teach online go through when they are required to change to a new course management system. The study took place at a middle-sized community college in the Midwest with an online enrollment around 6,000 students. This accounts for about 300 online course sections from 12 online academic program areas.

There is little research about changing course management systems even though many colleges have transitioned from one course management system to another. In
2003, the North Dakota University System (NDUS), due to maintenance and cost, wanted to transition from nine different course management systems to one. They found that other colleges including the State University System of New York (SUNY), University of Notre Dame, and Minnesota State Colleges were also looking to change course management systems (Smart & Meyer, 2005).

North Dakota University System (NDUS) was transitioning from nine different course management systems to one. Each company they researched had their own “conversion” software that would actually take all the course content of each course from the old course management system and “convert it” into the new course management system. Many providers said their conversion software worked well but none had research proof to back up their claims. As NDUS continued to research course management software they discovered that most CMS providers could not specifically determine the amount of content from each course that would convert properly with their proprietary “conversion” software, the amount that would need to be moved, nor the amount of content that would need to be rewritten. Neither NDUS instructional designers nor other college staff could adequately estimate the time and effort faculty would need to commit to the conversion. The CMS provider could only estimate how much of the content would convert; partially because faculty use different software tools, different computer languages, different test bank software, and the fact that there were nine different course management systems being transitioned into one new CMS.

The North Dakota State University System eventually chose Desire2Learn as their course management system. Desire2Learn seemed to have the best features needed by the school. Desire2Learn did a research sample course conversion to see how well courses
would convert. NDUS asked ten faculty to review the converted course. The course converted was a training course originally developed in Blackboard using all the options and features available in Blackboard. The NDUS Center for Instructional and Learning Technologies had created the course. Comments from the ten faculty were mixed but all agreed that the converted course still needed a lot of work to be comparable to the original form. These findings indicate that institutions should consider the time and effort on the part of faculty when changing from one CMS to another. NDUS identified the need for further investigation into conversion software tools by CMS providers. The promises of conversion completeness simply did not deliver at the level the faculty in the study expected as they converted their courses.

**Purpose**

With today’s educational scramble to keep up with student demand for online courses, colleges look for technology tools for their faculty. One of those tools for the online environment is the Course Management System (CMS). There are many options including Blackboard, Angel, Moodle, Sakai, and eCollege among others. Decisions about selecting a CMS are not taken lightly. Institutions look at many factors including cost, functionality requirements, available support, and compatibility with other college systems such as registration and billing, and reliability (“Marist College, 2009”) (“The Transition to Moodle, 2010”). So what happens when a currently used CMS does not meet the needs of the college, thus causing a change in the course management system?

Changing course management systems is not a simple process. Each course management system is proprietary software with differing features. Changing does not mean that the instructor’s course can be “uploaded” and will automatically work in the
new course management system. The purpose of this phenomenological study is to understand the common experiences of full-time faculty at a Midwest community college as they change course management systems. The process of changing course management systems is defined as a mandatory change by college administration to migrate online courses from an existing course management system to a different course management system.

**Significance**

This phenomenology study is significant to college administrators, information technology departments (IT), instructional developers, instructional designers, and faculty, who are considering a course management system change. The study helps these groups to better understand the faculty reaction and experiences of changing course management systems. If administrators, IT, instructional developers, and instructional designers understand the faculty experience when a CMS change is made, they can provide a more positive transition into a new course management system. The reason it is important to understand the faculty experience is that from a teaching aspect, faculty initially most affected by changing the course management system. The main purpose of a course management system is to support teaching and learning. Faculty are the ones using the CMS software so it is vital to understand faculty experiences as they go through the transitional process to a new CMS.

This study describes the experiences of full-time community college faculty who teach online go through when they are required to change to a new course management system.
Research Questions

The central research question was “What are the experiences of online faculty as they transition from one course management system to another?”

Sub questions

What process(es) in the overall transition were implemented that the faculty felt helped in the conversion?

What challenges did faculty face when forced to change course management systems?

Will the experiences of faculty support redefining workload when it comes to online teaching?

This research looked at the term “transition” to mean the full process including the selection of the new course management system by the college, the training of faculty, the actual conversion of each course, and the faculty finalizing their courses in preparation to go live with students. The term “conversion” refers to the process or processes involved in actually converting the courses to the new CMS. Most CMS providers have their own “conversion” software to assist moving the courses into the new CMS.

Limitations and Delimitations

This study provides data about faculty who have changed course management systems at least once prior to this change. The study does not include data from new faculty who are going through their first course management system change. The reason these faculty were not included was that the purpose of this study is to find the essence of the transition experience. Faculty who have changed course management systems before already have knowledge of the time commitment required for a conversion process. Their preparation may differ from faculty going through their first conversion. Faculty who
have been through a course management change before also may have more courses
developed and more course material tied into the current CMS. One potential limitation
could be that faculty are not completely honest about their experience. The timing of the
interviews may make a difference too. Each instructor will have their own timeline within
the college’s timeline. If one instructor is ahead of another in converting their material
they may not have gone through as much of the conversion process as another instructor.
Not every instructor will have the same type of files to convert. For example, some may
have videos and some may not. The types of files and how they convert may appear as
differences between instructors. As the researcher, I tried to time the interviews at
approximately the same period of time during the conversion, however because of
material and course subjects, each instructor may not be at the same point in the
conversion process. I also went back and asked for feedback from the volunteers once the
themes emerged to see if they had any comments or suggestions regarding the themes.
This allowed for the participants to further contribute on the research.

Another limitation was that this is one study, which by design, was conducted at
one community college with faculty only. The conversion process was based on the needs
of this particular college. The college looked at the number of faculty who needed to go
through the conversion and the number of courses to be converted as they established
their processes to complete the conversion. More studies at other institutions, both two-
year and four-year, provided other views and information for this study and could be
important to institutions considering changing course management systems.

This study took place at a community college in the Midwest. Total enrollment at
this college was about 11,000 students per year including part-time and full-time. This is
the third course management system change for this college and the fourth overall CMS. The sixteen participants selected for the study were from ten programs from three divisions. The programs in which the participants work in have had online courses anywhere from three years to twelve years. Criterion sampling was used to select potential participants who had been through at least one course management system change. Criterion sampling is a good sampling model to use with a phenomenological study because the researcher sets the criteria to ensure the participants have all gone through the same phenomena (Creswell, 2007). The experiences of faculty who have previously gone through a CMS change may very well be different than a faculty member who has never had the experience. Feedback is beneficial to distance learning departments, administrators, instructional designers, instructional developers, and faculty thinking about making a change. The sample selected had to meet the criteria of going through a course management system change at least once. This college had 236 total course management system trainees to train in the CMS selected, Moodle. Sixty-three, or 27%, of those instructors, met the criteria specified above. The rest of the faculty were going through their first CMS change or were adjunct instructors. A list of faculty who met the criteria was provided by the Director of Online Learning. Solicitations for participants went out to faculty who meet the criteria (Appendix D).
**Definition of Terms**

Contact hour—an educational activity consisting of sixty minutes minus break time and required time to change classes. (Retrieved from http://www.ncca.state.ne.us/ncss/stateaidguidelines.htm#terms)

Conversion—a physical, structural, or design change or transformation from one state or condition to another (Retrieved from http://dictionary.reference.com/browse/conversion)

Course management system—a software system that is specifically designed and marketed for faculty and students to use in teaching and learning. Common course management systems include but are not limited to BlackBoard, eCollege, Moodle, and Sakai, and Desire2Learn. Sometimes referred to as a learning management system (LMS) (Retrieved from http://www.wordiq.com).

Datatel Colleague is Enterprise Resource Planning Solution software designed for higher education. Datatel Colleague works with virtually any database platform, operating system, portal, and CMS, allowing institutions using Datatel Colleague to customize to their needs -(n.d. para 1, Retrieved from http://www.datatel.com/products/products_a-z/colleague-erp.cfm).

Distance education—a system and a process that connects learners with distributed learning resources (Sullivan and Rocco, 1996, p. 1).

Full-time equivalent (FTE)—full-time equivalent is a way to designate or estimate full-time status of employees and student enrollment (Retrieved from http://www.csuohio.edu/offices/iraa/articles/090503.html).
MAXQDA-text analysis software used by qualitative researchers
(http://www.maxqda.com/products/maxqda)

Online education-a process by which students and teachers communicate with one another and interact with course content via Internet-based technologies (Curran, 2008, p 27).

Processes- Sequence of interdependent and linked procedures which, at every stage, consume one or more resources (employee time, energy, machines, money) to convert inputs (data, material, parts, etc.) into outputs. These outputs then serve as inputs for the next stage until a known goal or end result is reached (Retrieved from http://www.businessdictionary.com/definition/process.html).

Sakai-Sakai is the name given to a community source software development project founded by the University of Michigan, Indiana University, MIT, Stanford, the uPortal Consortium, and the Open Knowledge Initiative (OKI). The purpose of the project was to produce open source Collaboration and Learning Environment (CLE) software. Sakai uses the Educational Community License, which is an approved Open Source Initiative license (https://www.indiana.edu/~sakaikb/display.cgi?docid=anei).

Test Generator (Test Gen)-A third party testing and assessment software sold by Tamarack Software (http://www.tamarack-software.com/products).

Transition-a process or period in which something undergoes a change and passes from one state to another. Example: We want to have a smooth transition when the new owner of the company takes over. (Retrieved from http://www.merriam-webster.com/dictionary/transition)
Chapter Two

Literature Review

Distance learning seems to be a recent phenomenon while in fact some form of distance education has existed since the mid 1800’s. First there were correspondence courses. Satellite technology became available for education in the 1960’s and fiber optic systems became available in the 1980’s (Bower and Hardy, 2004). Online learning via the internet is the latest mode available to students and has become very popular. More students than ever are working and attending college so online courses have become an educational option for those students. Students with a postsecondary degree will earn an average of 50% more than their counterparts who have only a high school diploma.

Online learning has also hit the K-12 sector too. It is estimated that over one million K-12 students took an online course in the 2007-08 fiscal year (Picciano and Seaman, 2007). Once exposed to online learning, students often desire that delivery method for higher education too. In the fall of 2008, over 4.6 million students in higher education were taking at least one online course. That is a 17% increase over the fall 2007 enrollments of 3.9 million students. (Allen & Seaman, 2010). Actual increases in overall enrollment in higher education were only 1.2% respectively both in 2007 and 2008. This shows there is a shift by students to the online environment as their preferred delivery method. The focus of this paper will be online courses only. Online education is defined as a process by which students and teachers communicate with one another and interact with course content via Internet-based technologies (Curran, 2008).

Over the past ten years, a significant increase in courses and programs taught via distance has occurred. Online enrollments have been growing by double digits yearly for more than 6 years (Allen and Seaman, 2007). The growth generally is a good outcome for most
colleges. As colleges started to move toward the distance education arena institutions quickly found that there were many details to work out. Developing a strategic plan was important. Policies needed development, money needed to be dedicated to the cost of implementation, and the stakeholders including faculty needed to buy into the idea of online education. Figure 1 shows the interaction of the many stakeholders at an institution offering online courses. In order for distance learning to be successful these stakeholders must all buy into the idea.

Figure 1. Stakeholders to Consider When Developing Distance Learning

Source: Chaney, Chaney, & Eddy, (2010) p. 2

This literature review looks at the stakeholders and requirements for setting up a distance program at a college. There is discussion about course management systems
which generally are used to support the online environment. The information in the literature review sets the stage for the study to follow.

**Planning for Distance Education**

A strategic plan of implementation with stakeholder support is very important. Gellman-Danley and Fetzner (1998) developed seven areas of policy development for colleges to follow as they enter the world of distance education. These areas best serve the institution when they are reviewed and policies developed prior to initiating a distance education program. The seven areas are listed in Table 1.

Table 1

*Policy Areas for Distance Education*

<table>
<thead>
<tr>
<th>Policy Area</th>
<th>Topics within Policy</th>
</tr>
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<tbody>
<tr>
<td>Academic</td>
<td>Calendar, transcripts, accreditation, curriculum approval</td>
</tr>
<tr>
<td>Fiscal</td>
<td>Technology fees, tuition rates</td>
</tr>
<tr>
<td>Geographic</td>
<td>Service area limitations, consortiums, out of state tuition</td>
</tr>
<tr>
<td>Governance</td>
<td>Staffing, interior program or exterior to the current university, Board control</td>
</tr>
<tr>
<td>Labor-Management</td>
<td>Compensation and workload, intellectual property, faculty training, development incentives</td>
</tr>
<tr>
<td>Legal</td>
<td>Copyright, fair use, liability for faculty, students and university</td>
</tr>
<tr>
<td>Student Support Services</td>
<td>Library access, delivery of materials, student training, proctoring of tests, registration, financial aid.</td>
</tr>
</tbody>
</table>


These areas are all very important to the structure and success of any distance learning program. As these areas are developed and implemented the entire culture of the college could change. The college administration must lead this change and get buy-in from the staff, faculty, board of governors, and students. This can be a long process and one that requires constant support to all the stakeholders.
The policy research by Gellman-Danley and Fetzner (1998) covers topics in five of the six stakeholder groups from Figure 1. These stakeholders include the learners, faculty, profession, university, and purchaser. The sixth stakeholder, technology, should be looked at after the policy areas are developed.

**Challenges of Implementation**

As with any change there are challenges. Addressing the policy areas recommended by Gellman-Danley and Fetzner (1998) in Table 1 creates challenges. The policy areas to be addressed are very important but will take time to work through. To get buy-in from all the stakeholders is a challenge. Even as distance education was becoming popular each college that decided to go down the path of online education needed to address the challenges. Issues that have become apparent include stakeholder support, faculty acceptance, and high costs (Allen & Seaman, 2007). The following sections will examine these areas in more detail.

**Stakeholder Support**

When technology is involved many “hot” technologies are compared to the fashion industry. The hot fashion trend this year will not last long. Another design or style takes over and the old fashion is remembered merely as a fad. With technology use chat rooms as an example. Ten or more years ago everyone was signing up for a chat room account and joining in online chats. Today, even though chat rooms are still used they have fallen to the wayside in popularity to text messaging and social media sites such as Facebook and Twitter. With online education, some stakeholders also felt that this too was a trend that would come to pass. Some Boards of Governors would not
support monies spent on distance education. There were also faculty and college administrators who also did not buy into the hype of online education.

**Faculty Acceptance**

Not all faculty have bought into the idea of distance education. Instructors often perceive that online courses take more time than traditional classes. That is one reason faculty turn away from teaching online. Many faculty feel that the extra time will take away from related duties such as research. Another reason is that many universities do not include online teaching as a priority when considering tenure (Lorenzetti, 2004). Faculty members want to follow the path to tenure. If that does not include distance education then those faculty members are not eager to teach online classes. The end result can be a smaller pool of instructors to teach online courses.

Other barriers mentioned by faculty include less face-to-face time with students, lack of planning time to deliver an online course, and lack of support and assistance to plan and deliver an online course (McKenzie, Mims, Bennett, & Waugh, 2000).

For faculty who did buy into the concept, they learned online courses cannot be taught in the same way that instructors teach in the classroom. In the classroom the instructor is the center of attention. In the online environment, the instructor becomes a facilitator of learning, directing the student in the right direction. Mellon, stated, “For technology-based learning to be effective, teachers must select materials that help meet carefully defined instructional objectives and integrate them into learning experiences that motivate and excite learners” (p. 34). The online environment may not be the best arena of teaching for all faculty. Not only is the method of online teaching different but student assessment, interaction, and communication methods with students also change.
With all these changes it is only natural that some faculty have reservations and time must be spent training the faculty to adapt to new pedagogies of learning. Faculty development programs are very important to the success of online courses. The faculty are teaching the courses and if they do not feel comfortable or develop quality courses it affects the entire distance learning program. Developing faculty and working with them to be good online instructors is a key to success (Van Der Velde & Rawl, 2000; Wolf, 2006).

Ryan, Hodson-Carlton, and Ali, (2005) used the outcomes from a 2004 study and developed a new questionnaire for another research study. The questionnaire developed was 20 questions divided into 3 parts. Part one assessed the level of perceived expertise of faculty in online teaching. Faculty ranked themselves in the following way: (1) novice, (2) advanced beginner, (3) competent, (4) proficient, and (5) expert. There were six categories assessed from the first study (see Table 2). Part two asked faculty to rank the order of potential continuing education sessions for faculty, and part three of the survey was an open-ended question about other potential continuing education sessions that faculty may need (Ali, N., et al., 2005). Outcomes of part one showed that faculty who did not teach online felt they were for the most part a novice in the seven categories. Faculty who had taught online felt they were advanced beginners or at the competent level. Table 2 shows the seven categories as ranked highest to lowest in potential continuing education topics.
Table 2

*Categories of Potential Training Topics for Online Faculty*

<table>
<thead>
<tr>
<th>Category/ranked in order highest to lowest</th>
<th>Topics</th>
</tr>
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<tbody>
<tr>
<td>Redesigning/rethinking faculty roles</td>
<td>Developing teaching strategies, online faculty roles</td>
</tr>
<tr>
<td>Communication processes</td>
<td>Using new media, building an online community</td>
</tr>
<tr>
<td>Technology Issues</td>
<td>Hardware, software, developing new technologies</td>
</tr>
<tr>
<td>Faculty Role issues</td>
<td>Knowledge about online support systems, online policies, and technology</td>
</tr>
<tr>
<td>Time</td>
<td>Managing time for online teaching, adjusting assignments for the online environment</td>
</tr>
<tr>
<td>Research</td>
<td>Conducting research for online learning and familiarity of online research</td>
</tr>
<tr>
<td>Partnerships</td>
<td>Working with faculty groups, design consultants, and technology specialists</td>
</tr>
</tbody>
</table>


Part three of the survey asked for open responses and only returned one reply.

That reply was a request for additional training in pedagogical topics.

**Cost of Distance Education**

Both institutions and faculty have faced barriers to moving to an online environment. The biggest hurdle for institutions is funding. Colleges cannot get the funding fast enough to keep up. Two of the strategies colleges are using without using up their entire capital budgets year after year are to create a for-profit sector of the college or to create a nonprofit business separate from the university but keep this nonprofit under the control of the university by retaining the rights of selecting the board. There are many reasons institutions look at these strategies. One of those reasons is the high setup cost and the replacement cycle of technology, which may be just a few years. Colleges can go after new sources of funds which may not be available to them under the nonprofit sector of their business because no one owns a nonprofit and tax laws prohibit anyone from
benefiting from raising capital under a nonprofit. Colleges could deplete their budgets just trying to get into the distance education area (Goldstein, 2000). By having a for-profit sector, a traditional college can compete with the private world. Some nonprofits, such as National Technological University (NTU), University of Maryland (UMUC), and New York University (NYU) have created the for-profit sectors for their distance education programs.

Colleges that do not want to pursue for-profit sectors can create an additional nonprofit subsidiary within the overseeing university system and keep these nonprofits separate but retain full decision-making rights. These structures may be more acceptable for some colleges and may be put into place more quickly. There are a few drawbacks that universities need to think about prior to engaging in the world of distance education by setting up a new nonprofit subsidiary. This nonprofit still has to follow nonprofit rules so there is no capital access such as selling stocks. A nonprofit cannot distribute a profit among the owners but can send profits back to the college’s general fund. It cannot sell any equity interest to those who donate to the nonprofit but can sell an interest in intangible property. A nonprofit also cannot suddenly turn itself into a for-profit entity (Goldstein, 2000). So each postsecondary institution must look at all options and make the best choice for their institution based on many factors including the conservativeness of the board, the mission of the college system, the initial investment needed, and the long-range plan.

Course Development

Reviewing the literature map on page 155 (Appendix L), there are four main categories in which topics of online learning fall. They are how to design a course,
assessment, student issues, and administration. This research study about experiences of changing course management systems relates to two of the four literature map categories (Appendix L). The two categories are administration and the design of online courses.

**Structural Development of an Online Course**

The structure for developing an online course has different steps than the development of a traditional classroom course. First, instructors must develop and build the course within the course management system, such as Blackboard, Moodle, or Sakai. This often requires training in the CMS prior to development of the course. Second, instructors must learn how to become a facilitator of learning and not just a conveyor of information. Instructors must learn how to provide interaction and discussion between students. This may be included in the course management system training or done separately through professional development training. Unfortunately, this component of course development is often missing due to the fact that schools often focus on the technology training itself and not training the faculty in how to create an interactive course (Moon, Michelich, & McKinnon, 2005). Third, the course itself will require more dedicated personal time to students versus the traditional classroom setting. Questions which may be asked in the classroom and answered once may now be asked several times throughout the course and answered several times individually. This written communication takes longer than oral communication would.

**New Faculty Roles**

Faculty expectations are generally broken into categories of teaching, research and professional development, and service to the college. Teaching gets the highest percentage of faculty time with formulas ranging from a split of 40-40-20 to an 80-5-15
split (Mancing, 1991). Faculty teaching online may spend up to 14% more time with teaching duties including teaching the courses and advising online students. The amount of research and professional development time also goes up due to the additional professional requirements of learning new technologies and updating current software skills (Tomei, 2006).

These new responsibilities as an online instructor changes faculty roles. New roles include additional course development time and additional time learning to become facilitators versus a lecturer in the traditional classroom. Studies have shown faculty also take on new roles as instructional designers, working in teams with faculty and staff designing the courses and curriculum (Pagliari, Batts, & McFadden, 2009). The role of subject matter expert will grow because faculty will need to know how to organize the resources for students to access as independent study material and become an intermediary for the students. Faculty need to become experts in the use of technology in designing the learning environment (Moon, et al, 2005). The design of the course materials may need to be designed for adaptation to different forms of distance education. In order for faculty to stay with the latest and the most efficient technology based on the audience, they must spend more time attending staff development activities.

The British Columbia Open Learning Agency in Vancouver uses three different contracts for faculty based on changing roles of faculty.

- Content Experts and instructional designers have annual contracts and goals
- Instructors have traditional course load contracts
- Mentors and tutors are paid based on the students they serve
Classroom Facilitation

It is important for faculty to be comfortable with the technology and adapt their curriculum and learning environment from instructor-centered to student-centered. Students are more interested in discussing topics with other students than with the instructor but the instructor must still monitor those discussions interjecting as needed to guide the learning process (Shea, Picket, & Li 2005). Technology should be secondary to the content of the course. Instructors must create the learning environment, set learning goals, and set the sequence to the learning. This changes the instructor role to more of a mentor and facilitator in an online classroom. This change in roles can be a challenge and distance education programs need to provide the professional development opportunities to assist faculty with the transition.

With all these role changes for faculty in mind, Parker (2003) conducted a literature review of 102 articles looking for incentives that appeared as motivators for faculty to teach distance education courses. As distance education becomes more popular, institutions need to use these motivators to entice faculty to move courses into online formats. As she researched articles, Dr. Parker made note of the number of times both intrinsic and extrinsic motivators appeared. Table 3 shows her top findings.
Table 3

**Motivators for Online Instructors**

<table>
<thead>
<tr>
<th>Intrinsic Motivator</th>
<th>Frequency (appearance in the articles)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-satisfaction</td>
<td>90</td>
</tr>
<tr>
<td>Flexible Scheduling</td>
<td>81</td>
</tr>
<tr>
<td>Wider Audience-less chance of cancellation</td>
<td>79</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Extrinsic Motivator</th>
<th>Frequency (appearance in the articles)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monetary Stipends</td>
<td>98</td>
</tr>
<tr>
<td>Decreased Workload</td>
<td>95</td>
</tr>
<tr>
<td>Release time to develop and teach</td>
<td>86</td>
</tr>
</tbody>
</table>

Note. Adapted from “Motivation and Incentives for Distance Faculty,” by A. Parker, 2003, *Online Journal of Distance Learning Administration*, 6, p. 2.

Even though stipends were the highest extrinsic motivator listed, Parker (2003) found that stipends are supported at less than half the nation’s colleges. A recent study by the National Education Association (NEA) found that approximately 63% of distance education instructors develop and teach with no extra compensation. The NEA report also shows that most colleges see development time of distance education courses as standard workload.

Another study reviewed four different studies on reward systems for distance education breaking out the extrinsic and intrinsic motivators. The review examined three studies prior to 2003 (Shifter, 2002; Beggs, 2000; Betts, 1998) and also looked at one study done in 2003 (Gannon-Cook, 2003). These four studies were chosen for comparison because they used the same or a similar self-reporting instrument. The purpose of these studies was to determine what factors were identified by faculty members as influencing their participation or nonparticipation in distance education courses (Cook, Ley, Crawford, & Warner, 2009). The outcomes of this research followed other studies done prior to 2001 indicating that early adopters of distance education were satisfied with intrinsic rewards such as the ability to reach more students, personal
motivation, and the opportunity to develop new ideas. They perceived distance education as a method for students to attend classes. Late adopters are more influenced by extrinsic tangible awards such as stipends, course releases, technology training, administrative support and recognition of their effort (Cook, et al, 2009). Extrinsic rewards also had a slight edge in Parker’s literature review from 2003. Using principles components analysis of the four studies the top rewards and inhibitors to using distance education were created. These can be seen in Table 4.

Table 4

*Top Rewards and Inhibitors to using Distance Education*

<table>
<thead>
<tr>
<th>Motivator</th>
<th>Rank</th>
<th>Inhibitor</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional Staff Service</td>
<td>1</td>
<td>Insufficient rewards</td>
<td>1</td>
</tr>
<tr>
<td>Money</td>
<td>2</td>
<td>Technical and admin support</td>
<td>2</td>
</tr>
<tr>
<td>Job Advancement</td>
<td>3</td>
<td>Professional Quality</td>
<td>3</td>
</tr>
<tr>
<td>Professional and Personal Prestige</td>
<td>4</td>
<td>Bad Press about DE</td>
<td>4</td>
</tr>
<tr>
<td>Personal Benefit</td>
<td>5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


Two of the extrinsic rewards from Parker’s study are seldom used: decreased workload and release time. The NEA report shows that 84% of faculty have similar workloads regardless of type of delivery method. Release time is the other extrinsic motivator less used by colleges today. Although development time is nearly double that of traditional classes, colleges are supplying course designers and developers to assist with course development and not allowing release time. If colleges are not offering many of the extrinsic rewards then faculty are continuing to join distance education opportunities for the intrinsic rewards.
The late adapters have also expressed concern over technical support for their courses and the increased time necessary for distance education courses (Cook, et al, 2009).

**Workload Studies**

Integration of technology in the academic workplace has changed faculty roles and led to questions about faculty workload (Schuster & Finkelstein, 2006). When studying workload, the NCE (National Center for Educational Statistics, 2002) found that on average teaching load was higher for faculty teaching distance education courses than those who did not. On average, full-time faculty taught five classes or sections and those not teaching distance education taught 3.6 classes or sections. Full-time faculty at two-year institutions were more likely to teach distance courses. Part-time faculty who taught online also averaged more classes than their counterparts; 3.5 classes or sections to 2.5 classes or sections. Distance education faculty also have more course preps than other faculty (3.1 course preps to 2.5 course preps). Average class size for full-time faculty regardless of course delivery method averaged 30 students and part-time faculty averaged 25 students.

When the NCE analyzed compensation for full-time faculty, the average base salary was $55,000 whether online courses were taught or not. One note regarding that study was that the category Other Income was $1,720 higher for instructors teaching distance education than it was for other faculty. Other income included teaching summer sessions, administrative work, course overloads, and coaching duties. It was inconclusive if part of this additional income was from contractual agreements for teaching distance education or from any of the areas listed above.
Results from another workload study done by Thompson (2004) at Penn State World Campus found that faculty felt that the actual workload was slightly less in the online classroom compared to a traditional classroom. The way the work was divided and the extra time needed for one-on-one interaction with students is where they felt the extra time came in. In a traditional class, the instructor has some control of when they work with students outside of the classroom. Often instructors will have time before or after class, and can determine set office hours when they will work with students. With online students the form of communication is often e-mail which can be sent at anytime and on any day. The faculty member must spend more time answering these e-mails which results in lots of small chunks of time which not only add up but take away from doing other tasks. Faculty members from Thompson’s study became fascinated with the results and started to look for solutions to better manage the time demands of online learning. Penn State World Campus now has on their website a report with suggestions of good online teaching practices.

Cavanaugh (2005) asked an economics instructor who taught both an online section of 15 students and a classroom section with 40 students to track his time spent for both classes. There were four activities that were measured as shown in Table 5.

Table 5

<table>
<thead>
<tr>
<th>Activity</th>
<th>Online (hours)</th>
<th>In-class (hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparation</td>
<td>35</td>
<td>3</td>
</tr>
<tr>
<td>Teaching</td>
<td>73</td>
<td>27</td>
</tr>
<tr>
<td>Office Hours</td>
<td>44</td>
<td>32</td>
</tr>
<tr>
<td>Final Tasks</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>155</td>
<td>62</td>
</tr>
</tbody>
</table>

Note. Adapted from “Teaching Online, A Time Comparison,” J. Cavanaugh, 2005, Online Journal of Distance Learning Administration, 8, p. 5.
All activities for online were reported to require more hours than in-class. Preparation hours included updating the course files, contacting students, and getting students started. Often students would call to find out how to log in or ask technically difficult questions. Teaching hours included answering e-mails, discussion questions, chat room time, and phone conversations. The in-class section only included actual hours spent in the classroom. Office hours included scheduled office hours. Some online students were also enrolled in traditional courses so they would often drop by with questions when they were on campus, which wasn’t always during regular office hours. Final tasks included administrative work to the online class such as resetting the class for the next term and downloading course evaluations.

Although this was one study and one class, clearly there are more hours spent preparing the class and end-of-term cleanup of the class for online instructors. Also, the one-on-one attention to students adds up over the course of the term.

As presented above, there are many questions relating to online teaching and workload to be answered. The most difficult challenge will be coming to agreement between college divisions, faculty groups, and administration.

Class size is also an issue in determining workload. Distance education instructors and administrators cannot agree on a satisfactory class size for distance education courses. One option would be a sliding scale of stipends based on class sizes above 25 (McKenzie, et al, 2000).

**Faculty Compensation**

Schifter (2002), from Temple University, conducted two distance education surveys dealing with salary, workload and tenure. She wanted to know if distance
education instructors received more compensation for courses, if they were allowed enough time for their courses, and was distance education above and beyond their normal duties when making tenure decisions? She surveyed university distance education administrators in 1999 and then again in 2002. Her results show that in 1999 colleges paid between zero and $15,000, with an average of $4,790 more for distance education instructors. In her 2002 survey, the range was between $800 and $7,500 with an average of only $2,790. She also found that universities were more likely to pay more for development of a course than for teaching the course. Currently, many institutions view the requirements of being a distance education instructor as extra duties and compensate for these services as extra pay or use other incentives such as time off for course development. Schifter, is not sure why the average pay has decreased but assumes that because distance education is becoming more mainstream and technology has improved there is a perception that it is easier to develop an online course today then in 1999.

Research done by the National Center for Education Statistics in 1997 found that two-year schools were more likely to provide training for faculty. Two-year schools were also more likely to pay more for teaching an online course and offer compensation for development.

An example of a college that has taken a stand in the role of compensation for distance education is the University of Sioux Falls in South Dakota. The university has acknowledged that online instruction takes more time and pays both full-time and adjunct faculty 25% more to teach an online course (Distance Education Report, September 15, 2002). The university pays for distance education under a separate contract so that the cost of the distance education courses can be more easily tracked.
Obligations of the Colleges

College support, both monetary and training, is crucial to the success of a distance learning program (Wolf, 2006). Not only is the content important, but the presentation and organization of the content. Material that was easy to present in a traditional classroom may not be so easy in an online format. Slides and overheads may need to be changed to different formats to be uploaded into the online course. The sizes of the files need to be considered for students with dial-up internet access.

Online instructors must design the course in an easy to follow manner. Yet, the course must also increase learner’s cognitive skills rather than transfer data to them (Meyer, 2004). The instructor needs to know how to be a facilitator to guide discussions and involve online interaction between students. Online technology changes the learning environment and instructors need to know how to work in this new environment.

Colleges must not only address workload and compensation but also assessment methods online, instructional methods in an online environment, and the pedagogical changes associated with online learning before online programs will be successful with high levels of student learning outcomes.

Changing Course Management Systems

Course management systems are often the software support system for the online courses. Today, many institutions not only use the CMS for the online courses but make course shells available for all faculty to use as an accessory to their traditional classroom courses. The CMS may also be used for providing resources that would otherwise be unavailable to online students.
Even after creating all the policies, getting the stakeholders to buy-in to online education, getting faculty to put courses into online formats, and finding the money for a distance education program there will still be changes as technology develops. Most colleges use a course management system to support their online learning environment. Course management system providers change their software or may sell their company. When this happens institutions will have to upgrade the software to the latest version or maybe look at another CMS provider.

There is a little research available relating to changing course management systems. In North Dakota, eleven institutions make up the North Dakota University System (NDUS). In 1997, there were nine different course management systems being used, including one locally grown system. In 2003, NDUS put together a team of faculty, technical staff, and Chief Instructional Officers (CIO’s) from all eleven campuses to evaluate moving to one course management system. The study was a small exploratory study but found some areas for institutions to consider when converting from one course management system to another. One area is the time and effort faculty will need to fully convert the course over. Course management systems generally convert some of the material correctly but not 100% of the material. What doesn’t convert or doesn’t convert properly will need to be corrected by faculty. Institutions need to evaluate the conversion tools by picking sample courses to convert and measure the outcome prior to selecting a new course management system. NDUS also felt that companies providing course management software should find ways to improve their conversion software.

Middle State Tennessee University (MTSU) was another institution that transitioned from one CMS to another. MTSU selected a CMS in the late 1990’s. Then in
2000, the Tennessee Board of Regents (TBR), which governs 47 colleges across Tennessee, approved a Regents Online Degree Program (RODP). Any course offered as part of the RODP was developed and taught on the Tennessee Board of Regents chosen course management system, which was not the same one as MTSU was currently using. Middle Tennessee State University determined that this was not going to work for students or IT staff, so they also converted to the same CMS as the RODP courses. Faculty had to make the change in one semester. Faculty were not happy about the change. This new CMS was in place until the contract with the Tennessee Board of Regents expired in 2006. Due to state legislation, a bidding process was needed to secure a new CMS. Three vendors were selected by a statewide selection team and were allowed to make presentations to faculty committees from the 47 colleges. During this bidding time, the current CMS contract was extended for one year. Once a new CMS was chosen, each school was allowed to develop their own transition plan. The timeline was basically one year for the colleges. The extended contract was to end December 2007. Schools had until that time to get courses into the new CMS (Draude, Clayton, & Brinthaupt, 2009).

MTSU’s transition team consisted of IT staff, the president of the faculty senate, one faculty member from each of the five colleges at the university, continuing education and distance learning, disabled student services, and library staff. The team decided to have faculty rebuild their courses rather than doing a mass “conversion” into the new CMS.

Technical issues associated with the conversion included timeouts while faculty were trying to upload large files into the new CMS and files that were not compatible with the new CMS would not display properly. Faculty issues included disgruntled
faculty who were not compensated for the extra time required, faculty who did not understand instructional design and struggled to redesign their courses, and faculty who did not anticipate the amount of time required to rebuild their courses and scrambled at the end to finish.

Some of the lessons learned by MTSU included developing a “best practices” document for online courses, increasing lines of communication, increasing training for resources that do not work the same in the new CMS as they did in the old, and creating an online learning community for faculty.

**Examples**

Even though I was only able to find a few research articles about changing course management systems, I was able to find other colleges who have or are changing course management systems. I have included some information about these schools and their CMS transitions.

The University of Alberta used WebCT from 1998 until 2006 when Blackboard purchased WebCT. The University of Alberta then went to Blackboard Vista, the WebCT replacement. In the summer of 2009, Blackboard announced that they would no longer support Blackboard Vista starting in January of 2013. The University had the option of going to the new version of Blackboard called Learn or look at other CMS options. As stated on their website, “Blackboard Learn is a completely different product than Vista and so this is not a simple upgrade” (“Transition Background”, n.d., para. 2). The University of Alberta spent five months studying options with a team from the college, including faculty, and narrowed down the CMS choices to Blackboard Learn or Moodle. In the end, it was determined that pedagogically there was no difference between the two.
Training would cost money no matter which CMS was chosen but Moodle would provide an overall savings to the University. Moodle was the chosen course management system.

Table 6 is the transition timeline for the University of Alberta.

Table 6

Transition Timeline for University of Alberta

<table>
<thead>
<tr>
<th>Stage</th>
<th>Time Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Research &amp; Evaluation</td>
<td>Fall 2010</td>
</tr>
<tr>
<td>2. Pilot-answers many questions and develop training</td>
<td>Winter 2011</td>
</tr>
<tr>
<td>3. Extended Pilot-provide additional information, start training for pilot courses</td>
<td>Spring 2011</td>
</tr>
<tr>
<td>4. Early Adopters-first set of pilot courses on Moodle</td>
<td>Summer 2011</td>
</tr>
<tr>
<td>5. Continued Migration</td>
<td>Fall 2011</td>
</tr>
<tr>
<td>6. Decommissioning of Blackboard Vista</td>
<td>Winter 2012</td>
</tr>
<tr>
<td></td>
<td>2012</td>
</tr>
<tr>
<td></td>
<td>2013</td>
</tr>
<tr>
<td></td>
<td>January 2013</td>
</tr>
</tbody>
</table>


The University of Alberta, established a 2.5 year transition time for changing course management systems. This includes 5,000 classes and is being done as a continued migration of courses from the fall of 2011 until January 2013 when all courses will be ready to go in Moodle.

Another example is the University of North Carolina (UNC) at Charlotte. In 2008, the Provost established a committee to evaluate the satisfaction of Blackboard Vista and to evaluate the need for exploring CMS alternatives. The current Blackboard contract would expire in 2011. This was an opportunity for UNC to consider other alternatives or renew the contract with Blackboard.

In the fall of 2008, a pilot study at UNC-Charlotte was conducted using Moodle with 10 faculty and 23 courses. Student enrollments in these courses was 674. In the spring, the pilot had expanded to 39 faculty, 117 courses, and 2,639 students. Throughout
the pilot, surveys were done by both faculty and students. The results were positive that Moodle could be an option for the UNC-Charlotte campus. UNC-Charlotte ensured that Moodle met the disability compliance requirements, took in consideration the feedback from faculty and students, and looked at the cost comparison between Blackboard and Moodle. In the end, the determination was to go with Moodle. UNC at Charlotte had from the fall of 2009 until the end of the spring term in 2011 to finish converting all courses over to Moodle. This was four semesters of conversions over approximately 22 months. This would allow for 450 faculty to be trained and over 1,500 courses to be converted (Croy, Smelser, & McAlpin, 2009).

**Conclusion**

This literature review covered three areas of distance education. The first was the difficulty and requirements of colleges preparing and initiating a distance education department. Referring back to Table 1, there are seven policy areas, noted that need to be addressed before instituting distance education at a college (Gellman-Danley et al, 1998). Table 2 addresses the stakeholders and the need for colleges trying to start a distance education program getting buy-in from those stakeholders.

The second part of establishing a distance program is getting faculty trained and teaching them the differences between teaching in a traditional classroom and in an online environment. Once online courses are up and running at some point changes occur affecting the course management system in which the online courses are stored and taught. There are many reasons a course management system could change. Some of the reasons are technology upgrades, companies buying out companies, contract renewals,
cost factors, and even state legislation affecting the bidding process of a course
management system. When the change occurs, the faculty will be affected.

The third area of this literature review discussed how teaching online courses has
changed faculty roles. The areas of workload and compensation for distance learning are
still very vague with many institutions trying various methods to encourage participation
and compensate faculty teaching in distance education. From the research conducted one
thing stands out. Workload is hard to define and the ways of looking at workload will
need to change as distance education becomes more mainstream. Institutions have found
that many college policies don’t flow into distance education departments without
tweaking; neither will the definition of workload. As the world of distance education
grows and the technology related to distance education changes more research needs to
be done. This study looks at faculty experiences as they change course management
systems in the online environment. The results of any workload analysis outcomes will be
discussed in Chapter Five.

Providing stakeholder support and training for any distance program is vital to the
success of distance learning. This study indicates the importance of these areas during the
interviews.

The information gathered from other colleges that have data on their own
experiences changing course management systems will provide detail and data for this
study. The colleges listed in the literature review have dealt with conversion issues,
various timelines, and the piloting of courses. All these areas are a factor in the current
study and will be discussed in more detail in the findings and recommendations sections
of this study.
Chapter Three

Research Methodology

This chapter describes the research approach used in this qualitative study. The intent of the study was to capture the experiences of the faculty and gain an understanding of the phenomena they experienced as they transitioned from one course management system to another.

Assumptions and Rationale for a Qualitative Study

Qualitative research is an inquiry process of understanding that explores a social or human problem. The researcher is an observer and key instrument in the study. They collect data in natural settings and use inductive reasoning to establish patterns or themes. The final report uses the voices of the participants, the reflexivity of the researcher, a description or interpretation of the problem, and recommendations or a call for action (Creswell, 2007). The rationale for choosing a qualitative study was to use an exploratory method to examine the phenomena. According to Creswell (2007) there are five main approaches to qualitative studies. He chose the five based on the types of qualitative studies that he has been involved with and most frequently sees in social, behavioral, and health science literature. Creswell also likes the fact that each of the five has a systematic procedure for conducting the research. The approaches and a brief description of each are in Table 7.
Table 7

*Types of Qualitative Approaches*

<table>
<thead>
<tr>
<th>Type of Qualitative Approach</th>
<th>Major Attributes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Narrative</td>
<td>Mode of inquiry with a specific focus on the stories of an individual</td>
</tr>
<tr>
<td>Phenomenology</td>
<td>Mode of inquiry that describes what all participants have in common as they experience a phenomenon</td>
</tr>
<tr>
<td>Grounded Theory</td>
<td>Mode of inquiry that moves beyond description and generates a theory of a process</td>
</tr>
<tr>
<td>Ethnography</td>
<td>Mode of inquiry in which the researcher describes and interprets the shared and learned patterns of a culture sharing group</td>
</tr>
<tr>
<td>Case Study</td>
<td>Mode of inquiry that provides an in depth understanding of a case or cases</td>
</tr>
</tbody>
</table>


Exploring the issue of what faculty experience as they transition from one course management system to another is the purpose of this study and makes it a candidate for a qualitative study.

**Rationale for a Phenomenological Study**

The reason a qualitative study was chosen was that there needs to be a better understanding of what faculty go through when a course management system change is made at their college. There is little research about the process of changing course management systems. Faculty are one of the stakeholders in a CMS change and this qualitative study explored their experiences in the change process. The setting and the participants are appropriate for a qualitative study. One of the reasons for doing a qualitative study is to better understand a topic (Maxwell, 2005, & Creswell, 2007).
This study, through the interview process, provided the opportunity to better understand what faculty experience as they go through a course management system change.

The type of problem best suited to a phenomenological study is one that it is important to understand several individual’s shared experiences (Creswell, 2007). In this study it was important to understand the experiences that faculty go through when they are forced to change from one course management system to another. Having a better understanding of faculty experiences will help distance learning departments, administrators, instructional designers, and instructional developers, to properly support faculty as the transition happens. For all those involved, if they can better understand faculty experiences then they can prepare a smooth transition process for faculty. They will better understand what faculty go through, may need help with, how the process can be worked in a timely fashion, and understand what faculty as one of the stakeholders need for a smooth transition. The importance of this understanding is why phenomenological approach was chosen.

Since there is little research on the experiences of changing a course management system, this study provides data for distance learning departments, administrators, instructional designers, instructional developers, and faculty thinking about making a course management change. Exploratory studies seek to describe a behavior. The fieldwork done by a researcher in an exploratory study is to look at a process and derive meaning from the observation and data collected (Merriam, 1988).

The term phenomenology was used as early as 1765, but it was Hegel who defined phenomenology as knowledge as it appears to consciousness, the science of
describing what one perceives, senses, and knows in one’s immediate awareness and experience. The process leads to an unfolding of phenomenal consciousness through science and philosophy “toward the absolute knowledge of the absolute” (Kockelmans, 1967, p. 24).

The word phenomenon is constructed from the greek word *phaino* and means to bring to light, to become evident, and to appear. Thus the experience in a phenomenology should become evident during the process and become the basis for acknowledging the experience and understanding the phenomena experienced. Edward Husserl, the founder of phenomenology, saw it as a technique to examine the essences that serve consciousness itself (Moustakas, 1994).

The four processes of phenomenology are listed in Table 8.

**Table 8**

*Four Processes of Phenomenology*

<table>
<thead>
<tr>
<th>Processes</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Epoche</td>
<td>The researcher must eliminate suppositions and the raising of knowledge about every doubt. The researcher should practice Cartesian doubt in regards to commonsensical beliefs and the researcher should put them along with all things of the natural empirical work in “brackets” suspending them in transcendental suspension. There is a “suspension of judgment” by the researcher. The researcher must let go of preconceptions and prejudices and be receptive of consciousness unbiased.</td>
</tr>
<tr>
<td>Phenomenological Reduction</td>
<td>Now the researcher must describe what one sees in text not only externally but internally, the experience between the phenomena and the self. The researcher must look and describe repeatedly referencing the textual qualities, focusing on the object itself allowing our consciousness to direct us meaningfully toward something. Phenomenological reduction includes prereflection, reflection, and reduction aimed at explicating the essential nature of the phenomenon.</td>
</tr>
<tr>
<td>Imaginative Variation</td>
<td>Describing the essential structures of a phenomenon is the major task of Imaginative Variation. Any perspective can be allowed into the consciousness. Imaginative Variation seeks meaning through the utilization of imagination, varying frames of reference, approaches from different perspectives, and different roles and functions. The goal is to arrive at a structural description of an experience answering the question, “How did the experience of the phenomenon come to be what it is?”</td>
</tr>
<tr>
<td>Processes</td>
<td>Description</td>
</tr>
<tr>
<td>-----------</td>
<td>-------------</td>
</tr>
<tr>
<td>Synthesis</td>
<td>This is the final step in a phenomenological study. The researcher intuitively integrates the textual and structural descriptions into a statement of the essence of the experience as a whole.</td>
</tr>
</tbody>
</table>


Following these processes allowed this study to bring to life the experiences of full-time faculty going through the course management change and pull from their stories the essence of the phenomena.

**Research Questions**

The central question of this study was “What are the experiences of online faculty as they transition from one course management system to another?”

**Sub questions**

What process(es) in the overall transition were implemented that the faculty felt helped in the conversion?

What challenges did faculty face when forced to change course management systems?

Will the experiences of faculty support redefining workload when it comes to online teaching?

**Research Participants**

The sixteen participants were full-time faculty who teach at least part of their course load online at a medium-sized Midwest community college with about 11,000 students enrolled either part-time or full-time.

The faculty who were selected had changed course management systems at least once prior to this change. Criterion sampling ensured that the online faculty selected did not include faculty who had not been through a course management change. Faculty who had previously changed course management systems had some knowledge of the time commitment and process. Their preparation made their experience different than faculty who were going through this experience for the first time. Their descriptions of the
process they went through were richer in detail. Faculty at this school had been through Lotus Notes, WebCT, Angel, and now Moodle. Comments were abundant in comparing these CMS’s amongst themselves and specifically to Moodle, the new CMS. Bill stated, “I think first of all, like anything, there seems to be things you like in Angel that you don’t like in Moodle, things you like maybe in Moodle you don’t like in Angel. For me, the mail messages don’t seem to be as nice in Moodle as Angel.” Tabitha compared Moodle to WebCT saying, “The thing that I am happy about is Moodle reminds me a lot of WebCT and so once I started taking a look at it from WebCT standpoint, it got easier.” Participants also compared the change process itself to other change processes. The participants compared Moodle to WebCT and Angel. Each had their preferred CMS. The areas most compared were the training and the timeline. Beth said, “I didn’t really feel like I learned anything in the training. It wasn’t like the training we did for Angel where we sat in the classroom and worked on our course. So it was a different, you know this one was more individualized.”

Faculty selected came from the Arts and Sciences Division, Health Sciences Division, and Community Services and Resources Division. The sixteen participants represented ten different programs. These programs have had online courses for as few as four years and as many as twelve years.

Data Collection Procedures

The researcher followed qualitative phenomenological steps for this study.

In a phenomenological interview the process is informal and interactive with open ended questions and comments. The phenomenological interview may begin with social questions or discussion to get the participant to feel comfortable and more willing to open
up freely (Moustakas, 1994). Interview questions are designed to allow faculty to talk about their experiences and the process of changing course management systems. Probing questions will be used as needed to gather more detail and keep the interview on track.

The interview questions were piloted on two different individuals who experienced CMS changes in the past. One of the volunteers for the pilot is a former Health Sciences Division faculty member who taught online health courses for ten years. She is now an administrator at the college being studied and still teaches online as an adjunct instructor. The second volunteer is a faculty member from the Business Division and has taught online for five years. The Business Division will not be involved in the study because the researcher works in the Business Division. The purpose of the pilot interviews was to ensure the participant’s interpretation of the interview questions paralleled the researcher’s interpretation. Modifications were made to the questions as needed for better participant interpretation. This also gave the researcher a chance to practice the interview process.

The interviews were recorded and then transcribed verbatim. All interviews were conducted face-to-face on one of three campuses. An interview protocol was used to keep the interview process the same. The list of participants came from the Director of Distance Learning. The list was verified by the Program Chairs of the departments on the list to ensure accuracy. Once the final list of potential participants was collected, an e-mail invitation (Appendix D) was sent to all potential participants asking them to volunteer for the study. There were sixty-one possible participants who met the criteria. A phenomenological study should include interviews with between 5 to 25 participants (Polkinghorne, 1989)(Moustakas, 1994). This study consisted of 16 participants.
Other data collection methods included a timeline of the transition period for faculty from Angel to Moodle (Appendix A). There may also be some observations of some of the participant’s courses to better understand the new course management system, Moodle. Any additional data collected will be identified in this study.

Table 9 is a representation of the Moustakas methodology of conducting a phenomenological study followed by this researcher.

Table 9

*Moustakas Tradition of Phenomenology*

<table>
<thead>
<tr>
<th>Moustakas Preparing to Collect Data Model</th>
<th>Researcher Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formulate the Question</td>
<td>Questions about the participants experience will be developed and will help to narrow down the central research question (Creswell, 2007). Two pilot interviews will be done to test the interview questions.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Moustakas Preparing to Collect Data Model</th>
<th>Researcher Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Develop Participant Criteria</td>
<td>The researcher chose criterion sampling. All participants were full-time faculty who had gone through at least one other course management change in the past. The criteria of who would be a possible participant were approved through both the Institution (Appendix B) and the IRB (Appendix C) granting permission to do the study.</td>
</tr>
<tr>
<td>Develop instructions and guiding questions for the interview</td>
<td>A script was developed for the researcher to follow as each interview began. The interview questions developed were piloted on a former faculty person who had been through other course management system changes and a faculty member who worked in the Business Division but would not be a part of the study. Revisions were made based off the results of those pilot interviews.</td>
</tr>
<tr>
<td>Moustakas Collecting Data Model</td>
<td>Researcher Actions</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>--------------------</td>
</tr>
<tr>
<td>Engage in the Epoche process to assist in creating an atmosphere and developing rapport for conducting the interview</td>
<td>The researcher took about 10-15 minutes prior to each interview and relaxed. During that time the researcher reviewed the Moustakas book to get mentally into the mode of conducting the interviews.</td>
</tr>
</tbody>
</table>

| Bracket the question | Since the researcher works at the college where the study took place, the researcher was conscientious not to answer any questions or volunteer personal comments. The focus was on the interviews and the faculty experiences. This is discussed in the reflexivity section. |

| Conduct qualitative interview | Interviews were conducted and prompting questions were asked as needed to hear the faculty experiences. |

<table>
<thead>
<tr>
<th>Moustakas Organizing, Analyzing and Synthesizing Data Model</th>
<th>Researcher Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Develop individualized textural and structural descriptions</td>
<td>The researcher started with significant statements, coded them and grouped them into themes. Each theme has quotes to support the participant’s experiences.</td>
</tr>
</tbody>
</table>

| Essence | Faculty involvement is the essence of this study. Faculty should be represented in all phases of a CMS transition: the selection, the timeline development, the training, the actual transition, and any follow-up analysis after the transition. |

<table>
<thead>
<tr>
<th>Moustakas Summary, Implications and Outcomes Data Model</th>
<th>Researcher Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summary of Study</td>
<td>The research suggests three themes. First, instructors want their own course to practice in, not just a training course. They want the ability to apply what they have learned immediately. Second, technology issues occur. There is not perfect software to do a course conversion. The third theme was changing a CMS affects the workload of the faculty, albeit temporarily. A CMS change needs to have an appropriate timeline based on the changes required.</td>
</tr>
<tr>
<td>Moustakas Summary, Implications and Outcomes Data Model</td>
<td>Researcher Actions</td>
</tr>
<tr>
<td>--------------------------------------------------------</td>
<td>--------------------</td>
</tr>
<tr>
<td>Relate study findings to and differentiate from findings of literature review</td>
<td>Very little existing research is currently available. There were several other colleges who have or are currently going through CMS changes. These colleges include the North Dakota University System who converted from nine different CMS’s to one, and the University of Alberta who is currently going through a CMS change affecting 5,000 classes over 2.5 years. The University of North Carolina at Charlotte converted over four semesters after the pilot study was done. Middle State Tennessee University did two different conversions. One in one semester for faculty not using the current CMS and the other was over a one year period. Study supports keeping stakeholders informed and part of the process, especially faculty, the college, including the overseeing Board, and students.</td>
</tr>
<tr>
<td>Moustakas Summary, Implications and Outcomes Data Model</td>
<td>Researcher Actions</td>
</tr>
<tr>
<td>Relate study to personal/professional outcomes</td>
<td>Changing course management systems affects me both as an adjunct instructor and as a college administrator. As an adjunct, I have to recreate my online course every time a CMS change is made if I want to continue to teach online. As a college administrator, whenever a CMS change is made, I must adjust the time and number of projects that faculty are working on to allow them as much time as possible to finish their course conversions. After the conversions, there is still a learning curve once the new CMS goes “live” as faculty fix errors, make modifications, and learn more about the system and its functions.</td>
</tr>
<tr>
<td>Researcher’s future direction and goals</td>
<td>As an instructor and administrator I will continue to have an interest in the online world of education. I truly believe my children, ages 8 and 12, will be affected by online learning throughout their K-12 education and certainly more so into college. I want to better understand online learning. I want to discover ways to make it better, find ways to make transitions easier, and ensure that students continue to learn along the way while meeting the goals and objectives of their courses. I expect to continue working in higher education throughout my career. I want to continue working in online education as an instructor.</td>
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</tbody>
</table>

Data Analysis Procedures

Once the interviews were conducted, the researcher will move into Moustakas’s organizing, analyzing, and synthesizing the data. The method used will be a modified version of the Stevick-Colaizzi-Keen method. This method is recommended by both Moustakas (1994) and Creswell (2007). The researcher used MAXQDA (What is MAXQDA?, n.d., para.1) to analyze the transcripts. MAXQDA is text analysis software designed for qualitative data analysis. MAXQDA provides a systematic way to code and interpret transcripts.

The steps in the modified Stevick-Colaizzi-Keen method are listed in Table 10.

Table 10

Modified Data Analysis Procedure of Stevick-Colaizzi-Keen

<table>
<thead>
<tr>
<th>Method of Data Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. First describe personal experiences with the phenomenon. This is to help get the</td>
</tr>
<tr>
<td>researchers personal experiences set aside and then focus on the participants stories.</td>
</tr>
<tr>
<td>2. Develop a list of significant statements (horizontalization of the data).</td>
</tr>
<tr>
<td>3. Group significant statements into larger units called “themes”.</td>
</tr>
<tr>
<td>4. Write a description of what the participants experienced in the phenomena (textural</td>
</tr>
<tr>
<td>description).</td>
</tr>
<tr>
<td>5. Write a description of “how” the experience happened. This is a structural description</td>
</tr>
<tr>
<td>and should include the setting and context in which the phenomenon was experienced.</td>
</tr>
<tr>
<td>6. Write a composite description of the phenomena incorporating both the textual and</td>
</tr>
<tr>
<td>structural descriptions. This passage is the essence of the experience.</td>
</tr>
</tbody>
</table>

Note. Adapted from “Qualitative Inquiry and Research Design, Choosing Among Five Approaches,” (2007), by J. Creswell, p. 159

Validation

Creswell (2007) recommends at least two validation strategies be used for qualitative research studies. This phenomenological study used various forms of validation. Included was member checking, triangulation, and rich thick descriptions. Once the themes were extracted from the data, I sent the themes pages back to the participants to get their feedback on the outcomes. Four participants responded. One did
not feel she had been quoted, but I sent more pages to her showing she had been quoted several times. Another said it looked fine. One participant said she thought she knew who she was in the quotes. She picked someone else, not herself, so she and the other participant must have had similar experiences. The last person to respond had the longest response to the themes. Shelly stated, “Oh the flashback you created, almost like a form of Post-Traumatic Stress Disorder. Your research represents very well the Moodle training most people experienced and the themes you reported are highly appropriate.” This feedback was a tool I used to see if I was interpreting the data appropriately.

I also used triangulation by collecting more data than just the interviews. The appendices include course requirements of a Moodle course at this institution (Appendix H) and a Blooms Form which was also required to be submitted by all instructors (appendix I). Other data included is a Moodle Course Evaluation Sheet (Appendix J). All courses were evaluated using this evaluation sheet. Any noted changes were to be done by the instructor and then the course resubmitted and reevaluated until the course was completely approved. The last piece of data included was a screen shot of the Instructor Resource Center (Appendix K). This other data helped me as the researcher to better understand the interviews.

**Role of the Researcher**

The researcher is both an administrator in the Business Division and an online adjunct instructor at the community college being studied and has been through two previous course management system changes. The researcher is also a PhD student in Educational Studies with an interest in Internet-based Education. As a graduate student, the researcher has taken eight online courses.
The researcher did not interview any of the faculty in the Business Division even though two degrees within the division are completely offered online. The role of the researcher in the Business Division transition was to ensure that all courses were ready to go by the deadline set by the distance learning department. Business Division Program Chairs worked directly with faculty during the transition process. The Program Chairs kept the researcher informed as needed during the process. The researcher’s input during the transition was minimal.

The researcher also went through the CMS transition with one online business course. Teaching this course has been done outside of the normal work hours so all work on converting the business course will also be done outside of normal work hours.

During both the interviews and analysis of the data, the researcher set aside any preconceived ideas about online learning and changing course management systems. One way this was done during the interview process was to refrain from making personal comments as the interviewee described their experience. This kept the interview focused on what the interviewee said and did not lead the participant in one particular direction.

The second step was done during the analysis stage when the researcher started by describing their own personal experiences with the phenomena. This self-analysis allowed the researcher to see their personal experiences openly and then continue on through the analysis of the data with an open mind.
Chapter Four

Presenting the Data

This chapter presents an in-depth look at the outcomes of the research. Included is information about the research site, the participants, and how this college came to the decision to change course management systems. There is discussion about how the conversion process was set up. The last part of the chapter goes into the themes of the study and explains with quotes emotions the participants went through as they converted their courses to a new CMS. The chapter ends with the essence of the study.

The purpose of this phenomenological study is to understand the common experiences of full-time faculty at a Midwest community college as they change course management systems. At this stage in the research, the process of changing course management systems is defined as a mandatory change by college administration to migrate online courses from an existing course management system to a different course management system. Through the process of interviews, the experiences of the full-time faculty going through this change was recorded. This chapter will review the outcomes of those interviews in the form of themes following the process of a phenomenological study.

Background on Site

The institution where the study took place is a middle-sized community college in the Midwest with enrollments around 11,000 students. There are approximately 3,000 students enrolled in the online environment. This institution is no stranger to course management system changes. Online education began in 1998 with one business course using Lotus Notes as the course management system. In 2003, the college converted to
WebCT. In 2009, the college converted to Angel and in 2011, the college began to use Moodle Joule, generally referred to as Moodle.

Faculty at this community college have different workload assignments depending on what program they work in. In the Arts and Sciences Division, faculty workload is between 18-20 contact hours per week in the classroom. In the Health Sciences Division the workload is 22 contact hours per week in the classroom. In the Community Service and Resource Division, the workload is 22 contact hours per week for the Long Term Care Administration Program. All faculty are required to be on campus a minimum of 35 hours per week. Time not spent in the classroom is divided among office hours, prepping for courses, grading papers, advising, professional development, and service to the college via being on various college teams, committees, or other projects as assigned.

Participants

An e-mail asking for participants went out and 21 out of 63 (33%) replied back that they would be willing to participate. Of the 21 one wanted to write her responses and upon further discussion with my dissertation advisor, the recommendation was to take that person out of the pool. Another instructor, reported that she creates the classes but do not teach the classes. This participant was also taken out of the pool. A third participant from the math department said he would volunteer but he really only use the course management system for discussions. The bulk of his course is actually done on the publisher’s companion website which accompanies the required textbook. This instructor was also taken out of the participant pool because he really only had a few changes to make since most of their course was taught through the publishers website. The fourth
instructor dropped from the pool of participants also uses a separate website for the bulk of his courses due to the size of the course files and the limitations in the course management system to handle such files. The fifth and last instructor dropped from the study was dropped only because she never replied back as to when she could set up an interview time. I contacted that instructor twice with no response and after that felt she had probably changed her mind about volunteering for the study.

There were sixteen total participants; ten female and six male. Eight of the participants had been through one prior course management change, meaning they had used three different CMS systems including the one they were currently going to. Eight participants had been through two previous course management changes, making this their third change or fourth CMS. Seven of the participants came from the Health Sciences Division. These faculty teach in Medical Assisting, Radiology, and the Surgical Technology programs. Eight of the participants came from the Arts and Sciences Division. These faculty teach in the English, Science, Math, Social Science, and History departments. One participant came from the Community Services and Resources Division and the Long-Term Care Administration program. Each participant was asked if they had a pseudonym name they would like to have used during the research. Some selected a name and others did not have a preference. All names used in this research are pseudonym names and correspond to the same sex as the participant. Table 11 summarizes the participants of the study.
News of a New Course Management System

Prior to faculty actually starting the process of conversion, they were asked in the interview about their initial thoughts upon learning that they would be going to a new CMS after the public announcement in May 2009 that Blackboard was purchasing Angel. For the most part, faculty were not surprised. Alicia stated, “I don’t think it really fazed me that much. When you are on your fourth one, you know there is a learning curve but it didn’t get me too worked up.” John said, “Well once we started seeing the outcome that Angel was either bought up or it wasn’t going to be supported – I knew that shift was coming and the shift did come.”

Others felt that the time with Angel was short-lived. Angel was purchased by Blackboard in May of 2009. Faculty had just converted their WebCT courses to Angel
and had not even gone “live” with students in those courses yet, when the buyout happened. That was scheduled to happen in July 2009. Faculty had not yet had a chance to get used to Angel when they learned that something would be changing again at some point. Beth stated, “I felt like the time in Angel was very short. I felt like I was just starting to get a handle in using Angel and now we’re switching to something else.” Patty commented, “I kind of had a disconnect to my desire to learn Angel to a mastery level. I really don’t feel I got into a mastery level with Angel.”

In May 2010, when faculty were notified via e-mail that Moodle was the chosen course management system for the college, they started to brace for the actual change process. A timetable was sent to all faculty in October of 2010 which included training information (Appendix A). According to this timeline, training for faculty would start in February of 2010 except for the pilot group. As it turned out, in December, a detailed spreadsheet came out with dates of training for each individual faculty member. That spreadsheet listed names of faculty and when they would start their two week training. Many had been moved up to January and not February as previously thought. The Distance Learning staff went alphabetically by division to do the training. The first division was Arts and Sciences, the second the Business Division, etc. The only exception was the pilot group from the Health Sciences Division. Those faculty in the pilot Radiology Program were also in the January training group. All faculty would be trained in either January, February, or March of 2011. All faculty going through training were required to fill out a Bloom’s Taxonomy form (Appendix I) prior to their training date. The Bloom’s Taxonomy form was submitted to the faculty’s Program Chair. The Program Chair reviewed the form and either sent back recommendations for changes or
forwarded on the form to the Distance Learning staff. Submitting the Blooms form in the training shell was one of the first assignments each instructor did when they started training. There were a total of five training sessions. The first training session was January 10 through January 22. The last training session was March 7 through March 18. Deadline for completion was May 6. The distance learning staff reviewed the courses and either approved the courses (Appendix J) or made suggestions for modifications by May 31.

**Selection Process**

This community college is no stranger to either the online environment or changing course management systems. Starting with Lotus Notes and one business course back in 1998, this college has grown to over 300 online courses and is now beginning their fourth course management system. The school went to WebCT in 2003 which lasted about five years. In 2005, Blackboard bought WebCT and in 2007 the college was notified that WebCT would be going away. The college looked at other course management systems and chose to go with Angel. Courses were converted from WebCT to Angel. In May 2009, all courses were ready to go in Angel. Faculty were paid a $200 stipend. Angel would go live in July of 2009. On May 9 of 2009, a news release reported that Angel had been purchased by Blackboard. With the acquisition of Angel, the college knew there would be changes coming at some point soon. By the fall of 2009, a team was put together to start looking at new course management systems. Discussions with Blackboard resulted in a timeline including three separate mini-conversions and at the end of those conversions Angel would cease to exist and the cost for the Blackboard platform would triple in cost. The combination of the number of conversions and the
ultimate cost made it clear that this Midwestern community college needed to evaluate other course management systems before signing a new contract. The team began their research in early 2010 and narrowed the CMS choices down to Blackboard and Moodle.

Moodle at the time of the study was an open source course management system. Open source did not mean all services are free. An example of one fee is Moodle hosting the course management system on their server and taking care of server issues, updates, and other technical aspects. There is a fee for that service. Part of the selection process was to bring in representatives from both companies to discuss options for the community college. Each company presented their proposals to the college team. This included the steps, timeline, cost, hosting services, and any other advantages such as a direct link into the student service software system. Company representatives also tried to answer as many questions that the team could bring to them. Blackboard had several transitions as they phased out the Angel course management system and continued to update the Blackboard system. Blackboard was much more expensive then the Moodle product cost, and Moodle was willing to do the hosting which would save the college IT department time, effort, and money with server upkeep.

Both CMS systems offered similar pedagogical tools such as discussion boards, testing options, assignment areas, announcements, e-mail, and a grade book. So the decision to be made by the team was to determine what would be best for the college and the students. Some of the factors included in the decision were ease of use, hosting options (either in-house or external), communication with Datatel (a student service software), cost, number of upgrades, and adaptability to future technology changes. Moodle was the chosen CMS.
The Angel contract would end June 30, 2011. Time was of the essence. The Distance Learning staff started Moodle training and working with Moodle consultants so they could learn the software. There was some delay in gaining access to a full version of Moodle due to the fact that the college wanted to sign the contract and pay the bill July 1, 2010, a new fiscal year. In the meantime, the staff had a free version and started learning what they could. Once the contract was established, more training opportunities were available for the Distance Learning staff. The staff at that time consisted of one director, one behind-the-scenes technical person dealing with the networks, servers, and backups, and three instructional designers. In January of 2011, an assistant director was also added to oversee some administrative duties and assist the instructional designers.

**Conversion Process**

When the training started, every two-week training session had four course sections. The three instructional designers and the assistant director served as instructors, each taking one section. Sections consisted of twenty students (faculty) each. In all, there were 236 instructors, both full-time and adjuncts to be trained in Moodle. The training schedule came out in December of 2010. The distance staff started with the pilot programs and the Arts and Sciences Division. Faculty, both fulltime and adjunct from each program were trained together. Once training was complete, the course or courses the instructor was going to teach in the summer quarter starting in July was released to the instructor. This took between one to two weeks. At that point, the instructors could start working to create their Moodle course. Instructors had the choice of either having their course in Angel converted into Moodle or they could start with a blank course shell and build their course completely. Two of the participants for this study started from
scratch; the rest had their courses converted. Reasons for starting with a blank shell included changing books, changing syllabi, and for some instructors, they just wanted to rebuild and refresh their course. When the course was converted, it came over into Moodle in one section. Nora described it as, “It was as though I had packed up my home in a bunch of little boxes – you know you pack up your kitchen, you pack up your bathroom, you pack up your living room, you pack up the bedrooms – and the truck came and got them and then dumped everything in the same room. And so you had to figure out which boxes went where and then you had to kind of – sometimes you had to open the box to remember what went where or how it looked – some of the stuff didn’t match your new home so you had to start over.”

Instructors then had from the time they received their course shell until May 6 to complete their course. Instructors followed a self-checklist to ensure they had all required components available in their course (Appendix H). When the instructor felt the course was done, they submitted a second Bloom’s form (Appendix I) to the distance learning team and then the distance learning team would review the course. The Distance Learning staff asked Program Chairs to first review the instructor’s course. This was to help speed up the approval of the courses. The Program Chair would hopefully help catch any errors prior to the distance team going through the course. The Program Chairs used the same Moodle requirements checklist (Appendix H) and the same final course evaluation sheet (Appendix J) that was provided by the distance team for instructors to use. So each course was cross-referenced with the checklist three times: once by the instructor, once by the Program Chair, and once by the distance learning team.
If courses were missing requirements, the course approval checklist was e-mailed back to the instructor and the Program Chair with the noted required changes. The instructor could then make the changes and resubmit the course for approval again.

Instructors who submitted early received quick feedback. As the May 6 deadline approached, turnaround time for feedback from the Distance Learning staff was longer. Patty, who went through training in March, commented, “I was three weeks ahead of my deadline with my submission. So I was okay, but when the deadline hit is when she (distance team evaluator) stopped giving me quick responses.” They had more and more initial courses to review along with second submissions and even third submissions for courses that required further changes.

As it turned out, courses were still be submitted on June 10, which was the day faculty left for summer break. The main issue for this late submission was a discovery that two currently used pieces of testing software would not work with Moodle. One was Exam View. ExamView is testing software. Summative or formative assessments can be created and managed by instructors. Reporting tools are available for student assessment purposes. There are more than 8,000 books from over 65 publishers that use ExamView. Some of the publishers who use ExamView for some of their products include Pearson Publishing, Cengage Learning, and McGraw Hill. The other was Test Generator. Test Generator is testing software sold by Tamarack Software and used by publishers such as Pearson.

The solution was to buy different third-party testing software called Respondus, which does work with Moodle. Respondus 4.0 (“Assessment Tools for Learning Systems”, n.d.) is software for creating exams that can be printed or electronically
published directly to Blackboard, Desire2Learn, eCollege, Moodle, and other course management systems.

Some people could not finish their course until the Respondus test bank software and the instructor’s book and test bank were available on the Respondus website. All in all about 70% of the courses were approved prior to the faculty leaving for break. The remaining courses (about 70) were being worked on during the summer break. Many of these were at the second submission stage, so for the most part required only minor changes. However a few faculty had not even completed the first submission. This meant reminders and phone calls to instructors from not only the Distance Learning staff, but Program Chairs to discuss the course and to determine if it would even be able to be offered to students in July. In the end, all courses were ready by July 12, just one day prior to the start of the quarter.

**Analysis**

As I conducted the interviews, I kept a journal of notes about the interview. This allowed me to record details about the participants, their emotions, and any commonalities I would see from one interview to the next. Journals can be used to reflect upon the work of the researcher including their behavior, thoughts, and the phenomenon they are studying (Watt, 2007). Journals should be practiced with qualitative research. As the researcher learns more about conducting research they also learn more about keeping journals. I am sure I will improve on the use of a journal as I continue to use them. The journal for this study consisted of brief notes about each interview. The interviews were transcribed verbatim and uploaded to MAXQDA. From the transcripts, I selected significant statements relevant to the experience. Next, I collapsed the significant
statements into groups of meaning units and further into themes. From the themes and significant statements, I used textural and structural descriptions of the participant’s experiences of changing course management systems to construct a description of the essence of their experiences.

As the participants were asked to describe their experiences of changing course management systems, there were three main themes dealing with the conversion process itself. The first theme dealt with the training, the second theme dealt with the technology, and the third dealt with faculty workload while the conversion was taking place. Table 12 shows the themes and subthemes with quotes relating to each one. Following the table is discussion about each theme.

Table 12

**Themes, Subthemes, and Supporting Quotes**

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<thead>
<tr>
<th>Themes</th>
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<tr>
<td>Training Themes</td>
<td>Include Various Pedagogies</td>
<td>“The face-to-face ones (trainings) almost seemed like an afterthought.”</td>
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<tr>
<td>Technology</td>
<td>Conversion Issues</td>
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<td>“The grade book on this, once you figure it out it seems relatively easy, but trying to figure out all the settings there is just a barrage of settings in here. Figuring out which ones you need for you class is a nightmare, you go back and read the module on grade book and that really doesn’t clarify it much. Some of those things I think maybe would have been better suited for a face to face session.”</td>
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<td>New Tools</td>
<td>“I think it is going to enable us to create a better product for our students because, one thing we are continually told, is that working on it instead of this training course: I had to put things in and do whatever I think that would have been a lot better scenario if I could have worked on my own course – and everybody could have just worked on their own course for just 2 weeks. That would have been my idea of a better training method.”</td>
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"One class I have has four exams. Exams two and four did not make it over in the conversion. So I had to rebuild those exams and to understand that process the first time you do it, is overwhelming, very overwhelming.”

"In the old version of Exam View, tests came over better. I had the new version of Exam View. Mine came over in one jumbled messed up – some questions were missing – created a huge large file that you had to draw from and that just took forever to try to organize. And sometimes I just wondered if it was easier just to write the whole test from scratch again?"

"The grade book on this, once you figure it out it seems relatively easy, but trying to figure out all the settings there is just a barrage of settings in here. Figuring out which ones you need for you class is a nightmare, you go back and read the module on grade book and that really doesn’t clarify it much. Some of those things I think maybe would have been better suited for a face to face session.”

"The tests came over, my tests came over fine to look at, but to connect them to the grade book – then there was a lot of work you had to do to – basically you had to redo your questions and make sure they got into the grade book so that was a big problem.”

"I think it is going to enable us to create a better product for our students because, one thing we are continually told, is that working on it instead of this training course: I had to put things in and do whatever I think that would have been a lot better scenario if I could have worked on my own course – and everybody could have just worked on their own course for just 2 weeks. That would have been my idea of a better training method.”
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<td>“I want to get the gaming and I want to get the iTouch activities. I want to have podcasts that are very current, because our surgeries change all the time and I don’t want things to be old and I don’t want things to be stale. And I think Moodle may be able to do that.”</td>
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<td>“When I have time and when I can figure out where to fit it into the curriculum, I will probably have a module where students look up some terms and build a glossary, which is new in Moodle. Collaboratively, because I think that could be a really useful activity. And that is something that that technology, the LMS, allows me to do that really wasn’t possible in the last one. So those are the ways in which I see my teaching changing – taking advantage of some of the things it can do to achieve the same goals that I have always had for the course.”</td>
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<tr>
<td>Workload Themes</td>
<td>Teaching Assignments Affected</td>
<td>“While I have taught in every class I don’t think I have spent as much time as I normally would, preparing. I mean I am prepared, but I like to be more prepared and so I think the change to Moodle has taken away somewhat from my teaching.”</td>
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|           |                    | “I did not study or prep for a lab class experience that I had and it was horrible last quarter. I showed up thinking well, geeze, I have taught this lab for 9 years I will be fine, and literally was not
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<tr>
<td>Professional</td>
<td>Increased</td>
<td>prepared because I had not sat down and done my regular studies because I was engaged in other things.”</td>
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<tr>
<td>Development</td>
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<td>Increase view: “I think that Professional Development definitely increased because I was taking that time just teaching myself how to use this new technology and new system.”</td>
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<td>Decreased</td>
<td>“Professional Development – I kind of feel like I was feeding that category – because again I am actually working towards more technology advancements.”</td>
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<td>Decrease View: “Well, definitely professional development suffered because you had to put that on the back burner.”</td>
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<td>“Professional Development as far as safety and those other things, they have been on the back burner, I have paid no attention to that really.”</td>
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<tr>
<td>Appropriate</td>
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<td>“I don’t think we were given enough time for the change.”</td>
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<td>Timeline</td>
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<td>“From March 30 to June 1 was a very short amount of time for people to try to get courses done. I don’t know I just feel like everybody has been so rushed and the time frame has just been very, it just hasn’t allowed for the course to be as good as they possibly could be.”</td>
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<td></td>
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<td>(Referring to the instructors who went through the online training in March.)</td>
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**Training Theme**

Faculty provided good information about what they wanted in a training course.

With this group of faculty having gone through a CMS change before, there were comparisons made to other conversion processes. Two subthemes of training emerged.

One dealt with pedagogies and the other with the instructor’s personal course they would be converting.
Training should include various pedagogies

This CMS conversion was set up for faculty to receive online training only. There was no book or handouts distributed ahead of time. Everything was done online in the training course. The distance learning team determined who went through training and when. A list was sent out to all online faculty in November 2010 indicating the training dates. Training started January 5. The instructor would be enrolled in a two-week online course. There were assignments due, quizzes, and tests. If the instructor could not pass the training course with an 80% overall grade and a 100% on the comprehensive test, they were required to attend a five-hour face-to-face class at the end of March 2011. Several participants asked, “Why was there only online training?” No handbook given out at the beginning of the training was mentioned by a few participants too. When the college changed from WebCT to Angel there was a manual that was given to the faculty. Linette, who was part of the pilot program and started teaching in Moodle one term prior to the rest of the college said, “When I first started trying to transition back in January, the instructor reference center was not near as good as it is now and there was no manual to choose from, so that’s probably my biggest, that was my biggest anxiety about this transition, was nothing to read.” “I was running blind and making notes as I could and asking the design team, could you create, is there a way to do this?” There were no scheduled face-to-face trainings at the beginning. A few face-to-face trainings were added after the end of the online training. According to the participants interviewed, this late addition of face-to-face trainings was due to people complaining. Olaf commented, “The face-to-face ones (trainings) almost seemed like an afterthought.” Shelly stated, “I think a face to face element would be beneficial. I think maybe a blended version would
have been best.” Other comments about wanting face-to-face training mentioned learning styles of students. Shelly stated, “We are supposed to consider our students learning styles, and yet it seems like when we have to learn anything around here there isn’t any consideration of that.” Nora said, “I really had hoped that we would have some face-to-face instruction simply because it is easier. If you see a face and you know you can ask that question, your frustration level goes down.” These instructors clearly wanted more training options than just an online class. In all, there were six participants who talked about wanting more face-to-face training as they were going through the training and converting their own course.

Since this is the fourth CMS for this college, I am not sure why there was such a drastic change in the training. WebCT and Angel both had face-to-face training sessions and both had manuals for instructors. Possibly because of the rush to online, e-books, and number of faculty involved in this conversion, the distance staff felt that a new process was due. Unfortunately, some of the faculty were not prepared for that kind of change.

**Provide Instructor’s Course**

Another strong suggestion from many participants was that they wanted their courses available while they were going through training so they could work on them at the same time as they were going through the training course. This would compare to a student taking a research class who is writing their paper as they are learning how to conduct research. As they learn they can update and apply what they learn to their own project. If the student had to go through the course before they could select their topic and start writing, the student would find themselves constantly going back to their notes and asking questions versus being able to learn and then immediately apply those skills as
they learn. Alicia recommended making that change. “I guess as to the training, I felt like if we had been given our course to work on at the start, I could go in there and just start working on it instead of this training course: I had to put things in and do whatever I think that would have been a lot better scenario if I could have worked on my own course – and everybody could have just worked on their own course for just two weeks. That would have been my idea of a better training method.”

Some faculty said they got their course quickly after they completed the training course but others said it was a couple of weeks. Beth felt that she was only going through the motions during the training course submitting assignments, etc. Beth said, “Maybe it would have been more helpful to be actually working in our own course rather than a fictional course.”

Training was continually updated. The test requirements lowered from a 100% to a 90% and the comprehensive final which was 125 questions was broken into five separate shorter tests of 25 questions each. Faculty only had to retake the modules in which their score was less than 90%. The first group of faculty had to retake the entire comprehensive test when their score was lower than 100% which was frustrating and time consuming for faculty.

As the training went on during January, February, and March the distance learning team added lots of resources to the Instructor Resource Center (Appendix K). There were documents and videos for faculty to refer to. HTML code was included for inserting banners so faculty did not need to write the code. These resources became better and better as the team learned more about Moodle and learned from the faculty the topics which were asked about the most. Amy stated, “The distance staff had put in videos of
how to do things. Those were helpful. They also had documents so a lot of times the information was written in different ways so you could compare and contrast.”

Face-to-face training was also added at the end. Offerings in March and April were available either face-to-face or via a webinar for faculty on other campuses who did not want to drive to a different campus.

Linette, at the end of her interview, mentioned the following comment as one thing she would change in the future for any additional CMS changes. “The only thing I would have liked to have done differently is to actually, when I went through the Moodle training, I would have rather built a part of my own class and known that I used all of the tools and navigation (things that they wanted me to learn about) but I had an end product that was useful to me, not a mock class that I had just created that would be of no use in the end.”

The literature review points out that college support is very important to the success of a distance learning program (Wolf, 2006). One very important aspect of this support is training of faculty. This support should carry on from starting an online program to converting an online program. Instructors know that not all students are going to be successful in online and the college needs to realize that not all faculty are going to be successful in strictly online training either.

**Technology Theme**

Referencing back to both the North Dakota State and Middle Tennessee State University conversion study in which some materials did not come across in the conversion, there were similar issues with this conversion from Angel to Moodle. Amy who had been through one previous CMS change stated, “When they (distance staff)
came to us and said that they were going to convert our courses over for us, to me that meant okay you are going to have minimal changes that you’re going to have to do. But that was not the case at all. You basically had to recreate all of your tests. The things that converted over converted over funny and you had to go in and change everything.”

**Conversion Issues**

The big conversion technology issue was with the exam tool in Moodle. There were several issues that arose relating to exams and quizzes. One issue brought up by a participant in the Radiology department pilot group stated secondhand, “One glitch, which I have not had but colleagues have had, is with question pools. If individual questions were not named specifically as Chapter 5, Question 26, Anatomy, but were named Question 26, Anatomy, then all the questions were dumped into one pool and could not be separated by chapter.” Since most instructors test over specific chapters, the questions in the question pools had to be renamed for separation purposes. This process was very time consuming for instructors who want to continue to use question pools. This participant mentioned that an instructor found a faster way to fix this, but by the time the remedy was shared, many instructors had already redone their test banks. Tabitha also had exam issues with the conversion process. Tabitha stated, “One class I have has four exams. Exams two and four did not make it over in the conversion. So I had to rebuild those my exams and to understand that process the first time you do it, is overwhelming, very overwhelming.” Beth also had issues with converted tests. Beth explained, “They converted over the entire course and everything came but when the tests came, there was no way that you could link them to your grade book. They couldn’t be a graded item, so you would have to go back into your tests. Okay, my final exam had 50 multiple choice
questions on it. Well, when it converted it over – it converted it over in three question sets – one that had 43 questions, one that had seven and one that had nine. How you got 50 questions out of those I had no idea and there were duplicates of things in there. So I spent a lot of time going over what questions were there. Then you had to recreate the test itself since you could not link it to the grade book.”

The other problem with exams was that there are two pieces of testing software that do not work with Moodle. One is ExamView, which is used by several health instructors and had been used with two previous course management systems at the college, WebCT and Angel. Lynn commented about her experience with converting ExamView tests in her course. “In the old version of ExamView, tests came over better. I had the new version of ExamView. Mine came over in one jumbled messed up – some questions were missing – created a huge large file that you had to draw from and that just took forever to try to organize. And sometimes I just wondered if it was easier just to write the whole test from scratch again?”

The other software is called Test Generator or Test Gen. Test Gen is proprietary software used by Pearson Publishing. Pearson sells textbooks under the Pearson and Prentice Hall labels. The Arts and Sciences and Business Division both use many Pearson books. Once it was discovered that these two pieces of software would not work with Moodle, the IT department and the distance learning team met to discuss options. One option was a software product called Respondus which does work with Moodle. This is third party assessment software for course management systems. Book publishers send test banks to Respondus. Respondus converts the test banks to work with many different course management systems. These include Blackboard, Angel, Desire2Learn, and
Moodle. Schools buy subscriptions to Respondus. Once purchased, Respondus can be used by faculty both on and off campus.

This community college has a technology team that reviews and approves software for the entire college. The team is made up of IT personnel, the Vice President of Administrative Services/Resource Development, the Vice President of Technology, library staff, student services staff, an instructional dean, and faculty. The team scheduled a meeting in early May 2010 to approve the Respondus software. Courses were due to be completed by May 6. This exam software issue created a delay in meeting the course conversion deadline for some faculty. The software was approved and the college had the subscription paid for by the middle of May. After paying the subscription, instructions soon followed in the Moodle Instructor Resource Center and on the new college intranet as to how to access and use Respondus. For instructors, many textbooks were already available on Respondus but some had to wait for their specific book to become available. Faculty who were missing test banks in Respondus worked with the book representatives to ensure the test banks were sent to Respondus. This again delayed the submission date for some faculty who had already missed the May 6 deadline. Faculty were required to submit an online form and submit to Respondus who then sent the form onto the book publisher to ensure the person making the request to access the test bank was actually an instructor. A good security measure, but for faculty who were getting ready to go on summer break by the middle of June, this was poor timing.
Course Management System Differences

The other technology concern by the faculty was the grade book in Moodle. This did not relate to any conversion issue because instructors have to rebuild their grade books in a new course management system.

The issue was with the functionality of the Moodle grade book and how that would affect student assignments. The grade book does not calculate any single assignment grade over 100 points in one entry. For example, a term paper worth 200 points cannot be calculated in the grade book as one entry. The term paper grade has to be broken into two separate entries of 100 points each. This can be confusing to students who may expect one grade book entry for a term paper, not two. Instructors expect at least some confusion by students.

Also with the grade book, there was some confusion as to what settings to use when setting up the grade book. In February, instructors were given a set of instructions depending on if they were using a points-based or percentage-based grade book. It was not until March, that the Distance Learning team realized the instructions were incorrect for the points-based grade book and sent out new instructions. Olaf mentioned that the grade book was a lot different than the one in Angel. Olaf said, “The grade book on this, once you figure it out it seems relatively easy, but trying to figure out all the settings there is just a barrage of settings in here. Figuring out which ones you need for your class is a nightmare. You go back and read the module on grade book and that really doesn’t clarify it much. Some of those things I think maybe would have been better suited for a face to face session.” Concern over the grade book issue prompted some face-to-face
grade book sessions which were offered to help instructors understand the grade book changes and answer questions.

A couple participants wanted more help on how to tie the course work into the grade book. Graded work needs to be associated with the grade book. Associating the work and grade is an important part for instructors to know as they are creating their courses. Betty commented about her grade book experience, “The tests came over, my tests came over fine to look at, but to connect them to the grade book – then there was a lot of work you had to do to – basically you had to redo your questions and make sure they got into the grade book so that was a big problem.” Tabitha talked about understanding the relationship of the grade book too, with instructors knowing the differences and selecting between a regular discussion forum and an advanced discussion forum. “The advanced forum goes straight into the grade book, and your regular forum, you would have to enter everything manually. So you would have to be keeping a lot of notes. So in the long run, it saves you time to do the advanced forum.”

These issues, one being different functionality of the new CMS with the grade book and the other being conversion of tests and then the use of particular testing software, are two examples to show that conversions from one course management system to another are not perfect and certainly are not 100% compatible.

New Tools

As the participants worked more and more with Moodle, positive excitement was created for this new CMS. One participant liked the fact that they now know another course management system. Linette stated, “I did my Master’s degree through Blackboard. I have also operated WebCT and Angel. Now I can use Moodle. To me it’s
just an advancement of understanding how many learning management systems that you can actually get and they all speak the same thing. I mean a car has different buttons but we all know how to start it and we all know how to drive it.”

Several faculty were excited about new tools in Moodle that had not been available in Angel. They wanted to incorporate those tools, but several of the participants said they really only wanted to get the course going and then go back later and add new features. Amy stated in relation to teaching with Moodle, “There are lots of resources with Moodle, lots of tools that if you use them, they are great study tools for your students.” Patty mentioned some of the tools she wants to eventually incorporate in her health courses. “I want to get the gaming and I want to get the iTouch activities. I want to have podcasts that are very current, because our surgeries change all the time and I don’t want things to be old and I don’t want things to be stale. And I think Moodle may be able to do that.”

After Annie had been through Moodle training and was working on her course conversion she made this comment. “I think it is going to enable us to create a better product for our students because, one thing we are continually told, is that online classes are to mirror as much as possible our face to face classes and in the past we have tried unsuccessfully to imbed video segments from some of our textbook videos and they are just too lengthy. Moodle has apparently taken care of some of that. Our students online should be able to view the same video clips, video segments, even an hour long video that someone would show in a classroom.”
Even though instructors were not real excited about converting their courses to a new CMS, upon starting work with the new CMS they could see new ideas and uses for the CMS in their teaching.

Nora commented, “When I have time and when I can figure out where to fit it into the curriculum, I will probably have a module where students look up some terms and build a glossary, which is new in Moodle. Collaboratively, because I think that could be a really useful activity and that is something that that technology, the LMS, allows me to do that really wasn’t possible in the last one. So those are the ways in which I see my teaching changing – taking advantage of some of the things it can do to achieve the same goals that I have always had for the course.”

These technology subthemes hit on positives such as new tools, negatives such as conversion issues, and training needs in the areas that differ between course management software. Some of the colleges who have been through CMS changes have tried to implement processes dealing with the change in technology and effects on faculty. Florida International University (FIU) conducted a pilot study of both Moodle and Sakai. This allowed for FIU to see the resources and features of both as a live product. They also researched the developer communities of both and ease of use. This pilot was done as part of the selection process. That certainly helps FIU to get direct feedback about the interface and features of the software from the faculty perspective. The University of North Carolina at Charlotte, knowing that the contract with Blackboard was going to expire started three years in advance looking for comparative products. This school also did a pilot of some courses in Moodle that faculty taught “live” prior to actually selecting the next CMS. Running pilot courses could help schools to not only select the
best product but to also get a head start on specific areas that will need training for any product selected such as the grade book, which seemed to need extensive training in Moodle for this study.

**Workload Theme**

Chapter Two discussed what some colleges are doing to encourage faculty to teach online. Most colleges have not changed workload requirements but some have found incentives that are appealing to faculty such as flexible scheduling, release time, and occasional monetary stipends. Once faculty are trained to teach online and a course management system change occurs, they have to go through many of the steps they followed when they were first trained. They must go through training again because the CMS is different. Faculty must recreate their classes which may or may not take as much time as the initial online course setup, but can still be time consuming. They will spend more time tweaking the course and correcting items that they find need to be changed. They can anticipate more office hour time the first time or two the course is taught to help students and answer questions about the new CMS. Nora said, “It’s not until you start working with it, that you kind of figure out—okay, I had it organized this way here, it would probably be nicer here, or here is a thing I can use that I hadn’t thought about.”

Rodney also talked about how learning Moodle affected his teaching load. Rodney felt that training in Moodle was part of his service to the college. If he put learning Moodle in that category he felt he put in a lot of service hours. He said, “I spent whole weekends doing this for a month and at night and trying to fit it in around everything else. Which meant that I was very busy at the beginning of the spring quarter when was this due. In April, I got very backed up on grading. I felt I wasn’t getting my
work back to my students in the timely fashion I am used to getting them back – they finally got it, but I was kind of absent from grading in certain kinds of ways. My online class, especially suffered, because, you know you don’t have to stand up in front of them and develop a lesson plan. And so I felt I was playing catch up a lot more in that aspect of it.”

Faculty will get the work done to move to a new CMS. Whether or not they are paid more money, given release time, or find that they must give up some personal time, they will get the job done. In the North Dakota State University study, one of the conclusions was that for faculty to restore their course content that does not convert properly increases faculty workload resolving those issues (Smart, et al., 2005). Olaf summed up his role as a faculty member and the steps he must take to move to a new CMS. He stated, “I tried to prioritize as much as possible and work on the transition, a couple of hours in the morning and then work on, you know I’m part of the Higher Learning Commissions (Steering) Team, so I had to work on that stuff too and then making sure that my students still know that I’m available, I’m still making my clinical visits and my lab times, I’m still in the lab when I’m supposed to be, and in the classroom. So I don’t really think that any of that really suffered for me in this transition. One thing that you will hear is that it came on the cuff of all these other things. You had Higher Learning Commission stuff at the end of the quarter, 21st Century Skills – you know all of these other things that are requirements that the college is asking us to do and so you are going to hear complaints about that but I don’t think it cut into our workload any more than any other thing that we have had to deal with in this college.” Even though
there can be times of frustration and heavy workload, Olaf knows the transition process is part of the job of being a faculty member.

**Teaching assignments affected**

Faculty stating their current courses were suffering due to the demands of converting their online course(s) was a surprise theme to me. I had made an assumption that instructors probably didn’t need to prep much if they had taught the same class many times. Linette said she didn’t prep as much for her existing courses, thinking that because she had taught the courses many times, she could get by. Her comment about one lab class was, “I did not study or prep for a lab class experience that I had and it was horrible last quarter. I showed up thinking well, geeze, I have taught this lab for nine years I will be fine, and literally was not prepared because I had not sat down and done my regular studies because I was engaged in other things.” Betty said, “While I have taught in every class I don’t think I have spent as much time as I normally would, preparing. I mean I am prepared, but I like to be more prepared and so I think the change to Moodle has taken away somewhat from my teaching.”

**Professional Development**

The other area that the participants felt changed between teaching, professional development, and service to the college during the CMS transition was the amount of time spent on professional development. At this college, full-time faculty must participate annually in at least three safety activities, three diversity activities, and three professional development activities. Many of the participants felt that Moodle training was part of their professional development as an instructor so there were several comments that time spent on professional development increased. Beth said, “I think that professional
development definitely increased because I was taking that time just teaching myself how to use this new technology and new system.” Linette also felt that she was spending more time on professional development with the transition. She said, “Professional development, I kind of feel like I was feeding that category, because again I am actually working towards more technology advancements.”

For some instructors who did not feel that the Moodle transition was part of professional development, they commented that traditional professional development activities suffered. Lynn, from the Health Sciences Division agreed that her time spent on professional development activities suffered. “Well, definitely professional development suffered because you had to put that on the back burner.” Another health instructor, Betty, agreed. “Professional development, as far as safety and those other things, they have been on the back burner, I have paid no attention to that really.”

Another factor affecting faculty workload was that the Moodle conversion was taking place at the same time as the college’s Higher Learning Commission self-study reaccreditation process. There was also a college-wide project called 21st Century Skills in which all faculty were required to take six tests in various Microsoft software to prove efficiency and knowledge. The deadline to have the 21st Century Skills testing finished was May 1, the same week as the Moodle courses were due. The 21st Century Skills testing was initially launched in September 2010 so some faculty had completed the tests prior to Moodle training. These “other” projects that were going on at the college just added to the workload of the faculty.
Create an Appropriate Timeline

Participants expressed concern about the quick conversion timeline. Frank said, “I don’t think we were given enough time for the change.” The Angel contract ended June 30, 2011 and there would no longer be access to Angel. For the pilot group, training started in January and they were going live at the end of March for the spring quarter. The training for all other faculty started in January and all courses were to be done by May 6 (Appendix A). Some faculty went through training in January, some in February, and some in March. So the later the training occurred, the less time faculty had to get the course(s) ready. Referring to the faculty training sessions in March, Beth said, “From March 30 to June 1 was a very short amount of time for people to try to get courses done. I don’t know, I just feel like everybody has been so rushed and the time frame has just been very, it just hasn’t allowed for the course to be as good as they possibly could be.” Courses would be taught using Moodle in July 2011. Moodle was also being introduced and tied to the college’s new intranet system which allowed students a one-stop place to log in and get news, check accounts, look at their schedules, register for classes, and pay bills. This intranet system was introduced in January to faculty and was released to students in March.

Olaf, who was part of the pilot, said in relation to the transition, “One thing that I really noticed that stuck out about this one in contrast to the others that we have had so far, this one was much faster paced. From the time that we first heard about it to suddenly now we’re running our pilot groups, honestly it may have been a year, but I was thinking less than a year from the time we first heard about it til where we are today. And that is the shortest time that we have had in a transition that I can recall.”
Beth, who went through the online Moodle training in March said, “I spent my entire break re-doing my course, because this quarter for me was insane. There was no way I was going to be able to get it done by May 6. And so I spent my entire spring break doing my Moodle course. And so I think I submitted it a couple of days before we came back and it was approved before we came back from spring break.”

The instructors understood that with the short transition time they had to adjust their schedules and get their courses ready, no matter what the timeline was. Rodney made this observation. “To me I guess what it comes down to is that possibly more preparation time, for not only training the faculty trainers but to get the conversions done, a little bit better planning should have taken place.”

Middle Tennessee State University (MTSU) made two conversions, both relatively quickly. The first was because Tennessee colleges are overseen by a Board of Regents and that Board decided in 2000, that one CMS needed to be used for what they called the Regents Online Degree Program. Any college offering any of the courses for this program was required to use their specified CMS. MTSU was not using that CMS and decided that they could not afford to support two course management systems. The new CMS was introduced to the school and faculty using the old CMS had one semester to convert. Faculty were not happy. Mainly because of the short timeline and the fact that they had spent a lot of time learning the current CMS and now needed to learn a brand new one very quickly. The second conversion happened in 2006 and 2007 when the contract was about to expire on the statewide Board of Regents selected CMS. That conversion process allowed two semesters for the conversion, which was still a short timeline. Faculty had technical issues with server timeouts while they were working on
their courses, many files were corrupted during the transfer requiring faculty to redo the files, and faculty were not compensated for their time to convert the courses over to the new CMS (Brinthaupt, et al, 2009).

Overall, many faculty were very involved in other required college projects while trying to juggle the conversion process and their duties to the college. Some faculty admitted that their current courses were not at the same standards as they normally would be. Setting an appropriate timeline should be considered for the faculty workload issue of converting to a new CMS.

**Researcher’s Reflexivity**

Each research project is unique and ultimately dependent upon the interpretation of the researcher who is the primary “instrument” of data collection and analysis. Through reflection, researchers become aware of what allows them to see and what may inhibit their seeing (Russell & Kelly, 2002). Researchers must be aware of the phenomenon and how their own assumptions and behavior may impact the inquiry. They must be able to reflect upon their own experiences and the phenomenon. Moustakas suggests the researcher must be “…completely open, receptive, and naïve in listening to and hearing research participants describe their experience of the phenomenon being investigated” (Moustakas, 1994, p. 22).

As a faculty supervisor, part of my role is to listen to faculty and find ways to assist them in their needs. I expected to recognize themes that would allow me to make suggestions to other administrators and other non-faculty personnel; the purpose of this study. I did not interview any faculty from the division I work in. I feel that was a good
recommendation by my dissertation committee and took away many biases that would have otherwise been hard to remove.

In this study I was able to interview faculty, a group that I am only associated with as an adjunct faculty member myself. My daily work is not in a faculty role. I felt I could be more open to listen to others who have a different role than I do at the college. To refer back to reflexivity, I looked at my role as an administrator and how I approached this research. I enjoyed hearing about faculty experiences. I tried to listen to them and analyze their words from the transcribed interviews. There were passages that I coded and after I went back and reread the transcript, I changed some of the codes. I was interpreting them differently the second time around.

I also kept a journal. Now that I look at the journal and have read some additional research on journaling as a part of the research process, I realize that I have more to learn about keeping a journal. My journal was probably not as complete as it could have been but it was a start. Most of my journaling was about the participants.

Other steps I took to be unbiased included not offering comments or opinions during the interviews. This was emphasized to me by Dr. John Creswell in a qualitative research class and not getting verbally caught up in the interview is easier said than done. Even with this study a couple participants asked me for clarification of dates and I had to remind them that I was just collecting the data but if they later determined they had a date wrong they could let me know.

Before my interviews, I grabbed the Phenomenological Research Methods book by Clark Moustakas (1994) and opened the book to one of my marked pages, reading
about phenomenology prior to my interviews. This helped me to get into a mode of researcher and away from whatever else had happened that day.

As I read about other colleges who were changing course management systems, looked at their process, and compared them to this school’s process, I wondered if knowing more about other college structures would make a difference in my interpretation of the data. Some schools were running more than one CMS during the transition. The college in my study did not want any students using two different course management systems at one time. That was the reason that the pilot group was exclusively composed of Radiology Program students. These students would be only using Moodle. They would not be using Angel. The college in my study would check every class shell once instructors finished them. This college had about 300 classes to check. I doubt that other colleges include that as part of their requirements. How could a college like the University of Alberta check over 5,000 courses? I tried to keep an open mind, understanding that this college is only one example and steps this college would take would not necessarily work for other schools.

Summary of Findings

The findings broke out into three overarching themes. The first theme, training, suggested that the participants wanted more options than just an online training course and along with that if they were to make a change it would be to have their own course to work in and not a training course. The faculty felt that they could learn more by applying what they learned directly to their course. Other colleges such as the University of Alberta had a pilot phase and an extended pilot phase to answer questions and develop training for faculty (see Table 6).
The second theme, technology, pointed out some of the issues that were discussed by other colleges who also had gone through a CMS change in the literature review. The conversion process is not perfect and there will be issues. In this particular conversion, the tests did not come over correctly for some faculty and some software currently used by some faculty would not work with the new CMS, Moodle. Also, there is a learning curve with a new CMS. In this case, the grade book was quite a bit different than the grade book in Angel. There were many questions about how to properly set up the grade book and some of the participants knew that they really wouldn’t know if the settings were correct until they had students in an actual course. One positive that the faculty found as they learned Moodle was that Moodle offered more tools than Angel and participants felt that they would incorporate the tools into their courses as they became more familiar with Moodle. The first goal for the instructors was to meet the deadline and get their course ready. The goal of adding new features such as a glossary, educational games, or videos would come later. North Dakota State University who had faculty test a converted course in 2003 found technical issues. Other colleges such as Florida International University and University of North Carolina at Charlotte piloted courses prior to even selecting a CMS. This pilot can point out new technologies and areas of needed training. The Blooms form was used in order to get faculty to think about how they assess student learning and if any of the new tools available can be used in student learning.

The last theme dealt with workload. No matter the timeline or amount of training, changing from one course management system to another is a lot of work. Many faculty expressed the fact that they let certain areas of their jobs slip as they were anxiously
working with Moodle and their course transition. Alicia looked at Moodle somewhat differently than others. She knew she had a deadline and put her regular teaching duties ahead of Moodle, making Moodle the extra project when she got time. She was confident that Moodle would be done on time. She appraised her experience the following way, “Probably what suffered was that I couldn’t spend more time on Moodle because of my other responsibilities. To me, the other things are the priority because I look back in my mind, okay this isn’t going live until summer, so there is still time.”

Lynn, an experienced faculty member who has been through all the conversions at this school summarized the process as this, “If you have been through it, you do it, and you get by and you just – if there are problems then you deal with them. I look for the transition to be somewhat smooth, we have our course converted and I think that it’s good that it has been approved by someone else – I think that is good, so that everybody is on the same page, I think that is easier for students too, if most of the faculty teaching online within the college is on the same page.” Lynn also commented about the overall experience, “You always say cons until you get into the system and work with it. So, wow; the left menu can be very helpful to the students. I do like that the resources button, they can click on that and see all comments that you put in about a web page or anything like that, they are all right in a row, so I think that is really helpful to the students.”

A longer timeline may have helped faculty through some of the stress and anxiety they felt as they worked to meet the May deadline. Many faculty met the May deadline but those who were waiting for the Respondus software to be approved, installed, and their text book test banks loaded couldn’t do much until that was done. As it turned out,
faculty were still submitting their courses as late as June 10, when they left for summer break.

The three themes really hit on some key aspects of changing course management systems. The themes from this study align with results from the North Dakota State study and the Middle Tennessee State University study. One of the main concerns in any conversion is determining the differences between the two course management systems and providing training and information about those differences. Faculty need to be given the correct tools and training. Colleges need to consider an appropriate timeline to allow faculty the extra time needed to get their course(s) converted in a timely manner. A stipend or release time may also be an appropriate options for college administrators to consider. Using the experiences of these faculty and building in systems to work with these themes could help other colleges create a smooth transition to a new CMS.

Essence

There is going to be a new CMS. For this school, that is a big change affecting many faculty. This study focused on online instructors but many more faculty use the CMS to support their face-to-face courses. So for the instructional division, this was a big change affecting the majority of the faculty at the college. With technology in today’s world constantly changing, most faculty were not surprised about the course management system change.

Then came the process of the actual change and with that there was a lot of frustration, apprehension, feelings of being overwhelmed, and fear. The timeline was short, the training was only offered online and had to be modified so the students could pass the comprehensive testing module, the grade book settings and instructions were
confusing, test banks did not convert properly for some faculty and two different pieces of testing software would not work in Moodle.

As the faculty worked together and with the distance learning team they did finish their courses and for that they felt satisfaction, a sense of accomplishment, and relief. Ed, when asked about how he felt when he was done said, “I felt a sense of accomplishment.” Lynn summarized her experience as frustrating at first and then she said, “I had challenges, and I like that. I look forward to challenges; I think they are kind of fun, and when I am done, I feel a sense of completion.”

The essence of this study was that this was an emotional change process. For many the emotions included frustration and then satisfaction at the end. Faculty were not surprised they were going to be changing course management systems. Change is a part of technology. They did what they needed to do and in the end they completed their assignments.

As the participants spoke in the interviews, feelings often associated with change became apparent. I noted in my journal feelings and emotions including fear, anger, frustration, laughter, relief, confidence, and stress of the participants. Almost all of the participants mentioned that they knew change would be inevitable and the course management system software will inevitably change again. Four participants felt that the college made a mistake by not going with Blackboard because in their mind, the college would someday end up going to Blackboard anyway. Olaf said, “I bet that we are going to be switching course management systems again and Blackboard is going to buy out Moodle or whoever and they will be one of the few if not the only learning platform for online learning.” Linette felt the college had something against Blackboard and would
always choose something else. “I understand the college does not want to be in the Blackboard monopoly so the college will always pick something other than Blackboard.” Considering that Blackboard purchased both WebCT and Angel while faculty were using these course management systems, it is not surprising the faculty felt this way.

Betty commented that changing course management systems was beyond the college’s choice. It was inevitable due to companies buying companies. “These companies keep buying each other out and morphing into another company. Like WebCT got bought out by Blackboard, so they keep getting bought up.” Patty commented, “I’m getting the feeling that the college is sort of not in control of this either. So I think either technology or the web issues are driving the changes. So I’m finding out that there is probably no blame. I just need to be understanding.”

I was surprised to discover this much support for Blackboard. Some of the participants had used Blackboard in their Master’s programs as students or taught at another college and used Blackboard so that previous knowledge of the CMS may have influenced their opinions of what they thought was a good CMS.

Shelly admitted, “Having sat in on a couple of those technology meetings last year, where both Moodle and Blackboard were demonstrated, my thought was I wish we had gone to Blackboard instead of Moodle.”

I noted some of the emotions and feelings of the participants in my journal. When asked about what feelings were generated by her experience, Shelly said, “Concern; frustration when there were inconsistencies in the training and the technology was not working, then relief and confidence when I was done; maybe even surprise when the courses are offered.” Organizations including colleges are faced with many demands for
change. In this study, the change is a technological change. Because technology changes so fast these changes often become the new “normal.” Change is not always easy. Employees get into their routine and often do not want to change that routine.

Looking at change from a conceptual standpoint, there are three interrelated approaches to change (Kerber & Buono, 2005). The first is directed change. This is a top-down approach and relies on authority, persuasion, and compliance. Leaders announce the change and seek ways to convince members to accept it. The second change type is planned change. Planned change is becoming more popular and may start at any level of the organization but ultimately is supported by the top of the organization. Planned change is often a three stage process. First, unfreezing the organization from the current pattern; second changing and transitioning to a new pattern; and third re-freezing into that new pattern. Planned change will provide a roadmap and create conditions for the key stakeholders to become involved in the implementation of the change. The third type of change is guided change. Guided change can start anywhere in the organization. Guided change is based on the commitment and contribution of the organizational members. This approach takes full advantage of the expertise and creativity of the members testing new methods and ideas.

As I review the information provided to me in this study, I feel that this change was more of a directed change than either of the other two options. There was some faculty involvement in the selection process which could be considered a part of planned change but after that point, the process of changing course management systems was much more of a directed change. Processes such as telling faculty when they would train
are clearly top-down processes. The college may want to review change process literature and incorporate change process steps for future technology changes.

The emotional faculty experience was determined by the selection and preparation processes that the college created. If a college wants to change the faculty experience they must change the preparation process and involve faculty. The emotions and feelings created by this CMS transition indicates that faculty involvement in a CMS change should not stop at selecting a new course management system. Each department has a key role in the preparation and conversion process of moving to a new CMS. For example, IT needs to know a lot of technical data to ensure the interface between the current hardware and software of the college will interface with the new CMS. Student Services needs to know how the new CMS affects any of their software and how will students be enrolled in online courses? Students often ask questions like this to registration staff while they are registering for the course. So Student Services needs to understand and be involved in the process. Administrators need to understand the contracts, cost, support and help with the timeline of the project. So why wouldn’t faculty be involved in the entire process? Not all faculty can be involved, but selecting key people who understand technology, who embrace change, and are not afraid to think about possible outcomes and ask appropriate questions of those outcomes would be good to have on the team.

Looking at Appendix A, the Transition Timeline, there was no faculty involvement until January 2011 when the pilot group was going to start training. The CMS conversion timeline starts in October 2010. There were no faculty activities listed from October to December. Activities that faculty could have been involved in would have been working with the distance staff and Moodlerooms. Faculty could have also
been testing and assessing the conversion courses and the training materials to ensure that they were ready to be rolled out to other faculty. These activities could have been done by a select group of faculty. Extra time requirements by the select group of faculty could be offset with course release time. Some faculty had been involved in early 2010 to consider either Moodle or Blackboard as the next CMS but after that their involvement was done until they started training in January 2011 and everyone had to have their courses converted by May. The process that this school used is shown in Figure 2 below.
In the current study, faculty were included in the selection and the conversion process but not in the preparation process. This gap where there was no faculty involvement caused some of the emotions of faculty. There were activities being done on the conversion process but without the faculty involvement some key faculty input was not there.
Any decision to change to a new CMS should involve IT staff, instructional design support personnel, and faculty advisory committees (Beatty & Ulasewicz, 2006). A key factor to consider when reviewing CMS options is if the new CMS provides additional features or the opportunity to develop new features which will improve the teaching and learning experience. I would modify the above involvement list and say that the selection and transitional team should include instructional faculty and administrators, IT staff, student services personnel, distance learning staff, and budget administrators to ensure that everyone gets to provide input into the final plan. This group should be involved in all stages: selection, preparation, and conversion.

In the next chapter, discussions of how to improve the faculty experience, an improved process model and concepts for future research studies are presented.
Chapter Five

Discussion and Conclusions

Chapter five will answer the research questions. Then there are recommendations for other colleges considering a CMS change and from this study a process model is presented. Finally, there are recommendations for future research.

Discussion of Findings

“What are the experiences of online faculty as they transition from one course management system to another?”

This study showed several themes that arose from the faculty experiences and those are listed in chapter four. Three themes emerged. They were in the areas of training, technology, and workload. Each of these themes had two or more subthemes. As the faculty experienced this transition and worked within the designated timeline established by the college, faculty expressed many emotions. There was frustration, anxiety, even feelings of relief and accomplishment as the task of converting their Angel courses over to Moodle was complete. Table 12 in chapter four has the full table of themes and quotes from the interviews. Table 13 below is a summary of Table 12 in chapter four.
### Table 13

**Summary Themes Table**

<table>
<thead>
<tr>
<th>Themes</th>
<th>Subthemes</th>
<th>Experiences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training</td>
<td>Include Various Pedagogies</td>
<td>Provide more than just online training</td>
</tr>
<tr>
<td></td>
<td>Provide the Instructors Course</td>
<td>Have course converted so faculty in training can start to use what they learn</td>
</tr>
<tr>
<td>Technology Theme</td>
<td>Conversion Issues</td>
<td>Two pieces of exam software not compatible</td>
</tr>
<tr>
<td></td>
<td>CMS Differences</td>
<td>Grade book different and required more training</td>
</tr>
<tr>
<td></td>
<td>New Teaching Tools</td>
<td>New tools available such as the glossary. Most were not implementing them until they felt more comfortable with the new CMS</td>
</tr>
<tr>
<td>Workload</td>
<td>Teaching Assignments Affected</td>
<td>Faculty felt their current classes suffered</td>
</tr>
<tr>
<td></td>
<td>Professional Development</td>
<td>Some felt professional development opportunities increased and some felt professional development opportunities decreased</td>
</tr>
<tr>
<td></td>
<td>Appropriate Timeline</td>
<td>Faculty didn’t feel there was enough time allotted.</td>
</tr>
</tbody>
</table>

*What process(es) in the overall transition were implemented that the faculty felt helped in the conversion?*

Faculty really liked the fact that the Instructor Resource Center continued to build resources to help answer their questions as they worked in Moodle. A sample view of the Instructor Resource Center is shown in Appendix K. Many videos were added, documents that included HTML code to assist with graphics on the Moodle homepage, and links to the Moodle website answering various questions. There were student resource documents developed to help answer anticipated student questions. Adding face-to-face trainings also helped faculty to have the opportunity to receive training in a
format other than online and many expressed that they preferred having more than one training option.

*What challenges did faculty face when forced to change course management systems?*

One challenge for the college in this study was the short timeline. Faculty who began training in January had to be done by May 6 yet faculty who went through training in February or March also had to be done by the 6th of May. Faculty did not get to choose when they went to training. For some instructors this short timeline left them neglecting their current teaching duties. If college administration and distance learning departments can look at timeline issues and work with faculty, maybe the “under the gun” stress felt by faculty can be alleviated.

The online training also seemed to be a challenge for some of the instructors. Many felt that only using online training was not pedagogically correct. Students typically have the option of choosing between face-to-face or online courses so instructors wanted that choice too. Having a mix of both options seemed to be the favorite choice.

The other challenge was learning the new technology. Faculty were challenged with learning a new CMS. There were several technology changes faculty had to adjust to almost all at once. The college was rolling out their new intranet portal to work with their Student Services software and Moodle was being tied into that system. The only way to access Moodle initially was through the new portal. The IT department was having server issues so many times as an instructor would try to login the login screen would hang up and never load. Even though the IT department did not want faculty to by-pass the portal site, they eventually gave in and e-mailed out the direct link to the Moodle server access.
This college is having Moodle hosted by a Moodle server so going through the college’s
server to get to the Moodle server is not required. The college really wanted both faculty
and students to start using the portal so the intentions were good; however, with the
server inconsistencies, another option was needed.

*Will the experiences of faculty support redefining workload when it comes to online
teaching?*

This study did expose the fact that the faculty were not given release time so they
could work on their Moodle courses. From the comments of the faculty, they admitted
that they did not prepare as well for the classroom as they normally do and they could
tell, once in the classroom that they weren’t prepared. This even caught one of the
instructors off guard. Betty said, “I don’t think I have spent as much time as I normally
would preparing. I like to be more prepared and so I think it’s taken away somewhat from
my teaching. Some of my grading has not gotten done as soon as it would have. There
has been a lag there and grading has taken longer than I would like it to.” Another
instructor agreed about the grading and said they did not spend as much time grading
written papers as they normally do. Lynn commented about her grading of tests, “I would
take tests and papers home and try to get them graded if I could, but I did not spend as
much time commenting on them as I would normally.”

One English instructor, Shelly, expressed concern about the next CMS transition.
She said, “My concern is, alright, when does Moodle become obsolete and we have to be
retrained again? Part of my concern as an instructor, is that I put so much time into
updating myself in technology, that sometimes I feel it cuts into my work as an
instructor.” Her comment really covers two of the themes. The first is that keeping up
with technology and learning new technology takes a lot of time. As faculty, she is expected to stay up to date in her field of study through professional development. So how much of that professional development time should be on topics relating to teaching her subject matter, English, and how much professional development time should she or other faculty be expected to spend on technology changes such as a new course management system? Many faculty use a course management system to support their face-to-face courses so the number of faculty affected by a new CMS continues to grow. If colleges are going to continue to grow distance education options, then they certainly need to consider time to update technology skills as part of their workload formula.

Olaf said, “I tried to prioritize as much as possible and work on the transition, a couple of hours in the morning and then work on, you know I’m part of the Higher Learning Commissions (Steering) Team, so I had to work on that stuff too and then making sure that my students still know that I’m available, I’m still making my clinical visits and my lab times, I’m still in the lab when I’m supposed to be, and in the classroom. So I don’t really think that any of that really suffered for me in this transition. One thing that you will hear is that it came on the cuff of all these other things. You had Higher Learning Commission stuff at the end of the quarter, 21st Century Skills – you know all of these other things that are requirements that the college is asking us to do.” His comment relates back to the split of teacher workload in the literature review into teaching, service to the college, and professional development and research. He is stating the fact that during the Moodle conversion faculty had many projects that fell into the three areas.
When looking at the overall issue of workload, this study supports that online preparation takes longer during CMS transition times and colleges need to consider a modification of workload during CMS transition times. Release time would open up time for the course conversion and lower faculty workload temporarily so they can still take care of their current students in a timely manner dedicating the appropriate time to their assigned classes. If a college system like the University of Alberta changes over 5,000 courses in 2.5 years, the cost of release time would escalate quickly (“LMS Evaluation”, 2010). Individual colleges need to look at what is best for them. If a college changes their CMS and saves money doing so then the CMS cost savings could be set aside to help offset the cost of release time.

Other incentives could include faculty stipends, which do not allow more time for the instructor to work on their course conversion, but at least covers a small amount of the time the instructors are spending at home working on their courses.

This study suggests that workload should be evaluated during a CMS change. Based in the literature, options that faculty have shown to consider incentives are stipends and a reduced workload when teaching online. Offering these incentives during a conversion of course management systems certainly would be considered appropriate by many faculty.

**Significance**

The significance of this study is that changing course management systems is a change process for many areas of the college including the academic side, the student services side, the IT department, the distance learning staff, and eventually the students completing the process. The key to making the change as smooth as possible is in the
planning process. The planning process needs to include as many stakeholders as possible as discussed in Figure 1 from the literature review. Not only should colleges get stakeholder buy-in when establishing a distance learning program, but certainly many of these stakeholders who work at the college, are part of the Board overseeing the college, the students, and the technology should be involved in a big change process such as changing the CMS platform. Everything from server upgrades, software upgrades, licensing costs, training processes, timelines, signed contracts with CMS providers, the number of courses to be converted, the number of faculty to train, the conversion process and conversion software, and other college projects will all affect the process of changing course management systems and should all be considered up front if possible. The more of these items that can be considered in the process as the transition timeline is developed the better the planning can be. Planning out the change process as mentioned earlier in this chapter will help the college to follow an appropriate process. This college seemed to use some direct change and some planned change. Sticking to one process and following the change steps in that process would make more sense.
This college and other colleges need to look at motivators and inhibitors to teaching online. Technical and administrative support and insufficient rewards are both inhibitors according to Table 4 in the literature review. Ensure that the technical support is available to the faculty as they go through the conversion process. One suggestion would be to do what the University of Montana did and have faculty liaisons for fellow faculty to contact if needed (“About the LMS Shift”, 2010). Also, consider a stipend or release time for faculty. Either may improve the amount of buy in and support from faculty as they go through the conversion process.

Limitations of the Dataset

This study is limited in that it is one school and one transition. The outcomes provide additional information to what is already limited research but there needs to be more research so that some key patterns can be developed with enough supporting research data so that guidelines or “best practices” for changing course management systems can be established. Seven schools had data on their website about going through a CMS change but only found three of those schools that did any research on changing course management systems. Those three schools were North Dakota State University System, San Francisco State University, and Middle Tennessee State University. If more schools do research during the transition process and report the findings, there will be more cases to compare and more overall recommendations that can be made.

Recommendations

Recommendations to administrators, IT departments, instructional developers, instructional designers, and faculty based on this study are listed in this section. The
themes in chapter four show areas that need to be addressed in a course management system change.

A key recommendation is to keep a key group of faculty involved in the entire process. This study revealed that two key pieces of software and their inability to work with Moodle held up the completion of many faculty courses being fully converted. Because most publishers are using software with their books, my suggestion would be to include the bookstore and faculty to get a current list of publishers supplying the textbooks and any accompanying software. How a college gathers this information may differ. A survey to faculty requesting a list of software they use could possibly work; a request to the textbook representatives requesting software lists may be another option. A list of software from the new CMS provider of what software does not work with the CMS and providing that list to faculty may be another way to catch any software issues early. The goal would be to find out if there are going to be any potential issues as the courses are converted into the new CMS. Rules for software use will vary among different colleges. Some colleges may have limitations on what software can be used and others may be more open to faculty selecting whatever software they would like to use without a guided step-by-step process. Either way, a full list of software used needs to be gathered. The two pieces of software missed by this school are both provided by textbook publishers. ExamView software can also be purchased separately.

There is information from the University of Montana website (“Learning Management System”, 2010) that suggests the college utilized faculty in the training process during the CMS change from Blackboard to Moodle by having both a technical assistant and a faculty liaison available to other faculty with questions. The University of
Montana started looking at course management systems in 2008. In the spring of 2010, the steering committee recommended Moodle as the new CMS. By the fall of 2010, a pilot group was being trained and their course content converted. In the spring of 2011, a pilot group from three of the University of Montana schools was using Moodle. Those schools were the School of Law, School of Business Administration, and College of Visual and Performing Arts. Also during this time, the rest of the courses were being converted and faculty trained. By the summer of 2011 all fully online courses were ready in Moodle. The rest of the summer was spent getting supplemental Moodle shells ready for hybrid and face-to-face courses. By the fall of 2011, all courses, online, hybrid, and face-to-face were able to use Moodle. Blackboard would end in December of 2011. Once the new course management system was selected the entire process took about 18 months to complete. (“All Faculty Memo”, 2010).

The University of Montana used technical assistants and faculty liaisons. Each of the nine college divisions within the University of Montana had both a technical assistant and a faculty liaison (“Co-Build a Course”, n.d., para 1) to assist faculty with the transition. Faculty who had questions could ask the technical assistants who were there to help design the courses but could also access a faculty member who would be able to assist with teaching questions too. These faculty members were part of what was called the LMS Advisory Committee. This committee worked with the Instructional Design and Development team and also with student assistants helping faculty get their courses transitioned and ready to go in Moodle. Any instructor transitioning their course to Moodle could contact either a technical assistant or the faculty liaison for assistance. The University of Montana brought key faculty in and made them a part of the process. I
suggest using the same method for colleges who are considering changing course management systems.

In the current study participants mentioned working as a group with other faculty in their program to answer each other’s questions. This community college should have selected some key faculty from the major divisions and kept them on the team during the preparation process and as advisors during the conversion process for other faculty in their divisions.

The next suggestion would be for the college to build an appropriate timeline. This college had a short timeline. They made the conversion and the conversion was successful but along with that was neglect by some instructors in their current courses and disgruntlement by other faculty. Middle Tennessee State University also had to make a quick change over the course of one semester for a CMS change due to the Board of Regents selecting a statewide CMS. Those faculty were also upset about no pay and the quick timeline. A positive aspect is that changing a CMS quickly can be done; however the negative may be what and who suffers from an inappropriate timeline. My suggestion would be to plan ahead as much as possible, whenever possible. One way to do that would be to keep an advisory group for distance learning. The group should include instructional personnel such as deans or department chairs, instructional designers and developers, faculty, IT staff, and Student Services staff. The role of this group would be to evaluate the current CMS, know the contract renewal date, understand any state statutes about a bidding process if that is required, and most importantly know what other options are available. What are other local colleges using? What are the secondary schools using locally and statewide? Which CMS provider is gaining market share and
why? Is the current provider meeting the college’s needs and responding to concerns in a timely manner? Course management systems change as fast as other technology changes so someone needs to watch and understand that change. Keeping a team of advisors from across the college who meet periodically to discuss current activities and potential future changes would be a benefit to the college. As online learning continues to grow, planning will need to be all the more important. College systems such as the University of Alberta with over 5,000 courses would find a short timeline to be most difficult. The University of Alberta, due to planning, was able to establish a 2.5 year timeline (“LMS Evaluation”, 2010). Planning is the key to any change. So I would recommend planning in a manner that meets the college’s needs.

A third suggestion would be to do a pilot of a course management system as soon as possible. Two schools Florida International University (FIU) (“The Transition to Moodle”, 2010) and the University of North Carolina (UNC) at Charlotte both piloted Moodle courses as part of the selection process (Croy, M. et al, 2009). UNC at Charlotte surveyed the faculty after the pilot and included those results in the Executive Summary document. FIU piloted Moodle and Sakai. FIU also conducted a faculty survey. The College of Engineering at FIU had been using Moodle for a few years so the opinion of faculty from the College of Engineering was also considered in the decision. My recommendation would be to try to get a course or group of courses piloted by faculty prior to signing a contract. This is an excellent way to involve faculty and student stakeholders (Figure 1) in the decision.

Fourth, submit an executive summary report during the selection process. Key data in this report should include the recommended CMS and a timeline of the conversion
process. This document is a way of providing communication prior to a CMS change to stakeholders. Making this document available gives stakeholders the opportunity to ask questions and search out answers to their questions. The executive summary should touch stakeholders in technology, the college, the purchaser which could include college governing Boards, the faculty, and the students (see Figure 1). These are all stakeholders who are important in the distance learning environment and should be included in decisions changing the system. Two of the schools I researched had executive summaries available. Those schools were the University of Alberta and UNC at Charlotte. The University of Alberta referenced the executive summary of UNC-Charlotte as an external report (Croy, M. et al, 2009) they used during their CMS study. Table 14 below summarizes the recommendations.

Table 14

Recommended Process Changes

<table>
<thead>
<tr>
<th>Selection Process</th>
<th>Preparation Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>If possible pilot a course while still looking at CMS options. Write and executive summary include timeline.</td>
<td>Start Pilot or continue Pilot. Train Pilot Faculty and other key faculty on team. Get list of software used by faculty.</td>
</tr>
</tbody>
</table>

Finally, I would like to present a process model (Figure 3) to be used for a course management system change. The noted recommendations and changes from Figure 2 which was used by the community college and Figure 3, the proposed model are marked with an *. The purpose of the model is to provide guidance to colleges considering a course management change. Following a step-by-step process hopefully will alleviate
some of the anxiety and frustration felt by faculty in future course management system changes. This model is based on the information available about other colleges going through a CMS change and the themes that surfaced from the faculty in this study. It is hoped that a process model would be beneficial to other stakeholders in the process including the administrators, IT departments, Student Services, the distance learning staff, and students. This study prompted this model to help faculty. Other studies may provide modification to this model based on the outcomes of the research study. Figure 3 below shows that model.
Figure 3: Process Model for Changing Course Management Systems

### Selection Process
- Select CMS Team
- Investigate CMS Options
- Pilot a Course (if possible)
- Executive Summary
- Include Timeline
- Select the CMS and Sign Contract

### Preparation Process
- Continue Pilot From Above If Possible
- DL Staff Training (include key faculty)
- DL Staff Build Training Components (include key faculty)
- Train Pilot Group
- IT/Student Services Mtgs
- Hardware/Software Integration
- IT/Faculty/DL Mtgs
- Software used

### Conversion Process
- Offer Pilot Courses
- Start Course Conversions
- Train Faculty
- Add Additional Training
- DL Team Check Submitted Courses
- Recommend courses Changes
- Final Check of Courses

### Final Implementation Process
- Final IT Changes/Testing
- Students Enroll
- Old CMS Eliminated
- Faculty Teach
- Tips and Trick Updates or Users Group to Share Information
- Improve Student Help Resources
- Faculty course modifications as needed
Explanation of Process Model

The Selection Process should include the following steps.

- Select a team. Include all appropriate personnel including faculty, budget administrators, Instructional Deans and department chairs, IT personnel, student services personnel, library personnel if needed, and distance learning staff.
- The team should start to investigate CMS options.
- Once options are narrowed down, pilot a course if possible.
- Provide an executive summary to the college. Include a recommended CMS, a timeline, faculty and student surveys, information about other CMS providers to other local colleges and secondary schools.
- Answer questions about the executive summary and sign contract unless team feels more information is needed.

The Preparation Process should include the following steps.

- If a pilot was done during the selection process and can be continued then continue that pilot.
- Distance learning staff training. This includes the instructional developers, instructional designers, and some key faculty who should be involved in the full process.
- Distance learning staff builds the training components. This should also involve key faculty. Questions answered should be what type of training should be available, should there be a hard copy manual, how long is the training, and who should go through the training first, second, and so on.
• Select and train a pilot group of faculty. Continue to add to the training process as faculty are trained.

• IT and Student Services should be meeting with the CMS provider working through hardware and software changes and requirements.

• IT/Faculty/Distance learning staff should also be meeting to discuss software needs and any needed changes.

The Conversion Process should include the following processes.

• Start a pilot group of courses so that feedback can take place quickly. Feedback from the pilot instructors or students can be beneficial to the rest of the faculty who will soon be going through the training.

• Start converting courses into the new CMS.

• Start training faculty using their courses if possible.

• Add additional training if needed.

• Distance learning staff checks courses as they are submitted by faculty. (Note: For some colleges these last three steps may be optional depending on the requirements of the college).

• Distance learning staff recommends any changes to faculty about their courses. Examples would be missing links, tests that don’t work, grade books that need modified, etc.

• If needed, faculty resubmits course(s) and the distance learning staff recheck those course(s) prior to rollout to students.

The Final Implementation Process, even though it was not studied in this research may include the following steps.
• Final IT testing and changes.

• Old CMS eliminated.

• Students enroll.

• Faculty teach the courses.

• Tips and tricks or Users Group to share information.

• Improve student help resources as needed based on student questions.

• Faculty make modifications to their courses as needed.

This model and the steps in the process may not be in sequential order. There
often will be several steps going on at the same time. As the Distance Learning staff is
learning the new CMS, the IT department should be having hardware and software
meetings with the CMS provider so they can start making any needed changes dealing
with technology and the new CMS. This model is a recommendation. This model would
have been beneficial to the conversion team at this Midwestern community college. More
training options and tutorials would have been available to faculty sooner had this
process model been followed. An easier transition could have resulted from having the
pilot group teach their classes and recommend changes before the rest of the faculty went
through training.

Participants in this study talked about the preparation process but as a third party.
The faculty said they did not have any say into the training offered. At first the only
training offered was online. The face to face training was offered after faculty
complained. The Instructor Resource Center improved as time went on. If the pilot group
would have tested their courses sooner, maybe some of the instructor resources would
have been done sooner. So a key part to my model is to get the faculty involved and keep
a select group involved throughout each process. This will improve communication thus making the entire process less frustrating for faculty.

The proposed model in Figure 3, requires more steps in the selection and preparation processes. This allows for more “preplanning” prior to starting the conversion process with the faculty. In the selection process if it is possible to pilot a course while the college is still considering a new CMS provider take advantage of that opportunity. NDUS piloted a training course; Florida International University had pilots for three semesters, and the University of Montana system piloted one semester ahead of other courses being converted. This allows an opportunity to add training resources, fix technical issues, and ensure that the rest of the faculty have a smoother transition of courses. The community college in this study piloted and trained faculty all at the same time so there was no “cushion” time to make changes. Most faculty saw and felt any issues during this conversion, thus contributing to the frustration expressed in the interviews.

The executive summary forces a complete reporting process and would hopefully be used to get all the stakeholders from Chapter Two, buy-in to the new CMS chosen. The timeline should be done at this time. The executive summary should be available for all stakeholders to review.

In the Preparation Process, if the pilot project has not been started then do that now. Train key faculty who will stay on the CMS conversion team and train faculty who will be piloting courses. This is also the time to gather a list of all software used by faculty to ensure that the new CMS can handle the software or start working on
alternative options. Dealing with these processes early will make the actual conversion process smoother for faculty.

The last suggestion is to look at possible incentives for faculty. This college had paid a stipend to faculty during a previous CMS change. The question to be considered is Does paying a stipend once set a precedent in the minds of faculty that every time there is a CMS change? Participants in this study did not mention that they expected to be paid, but they did mention issues such as not being able to appropriately attend to their current classes. The literature review shows that stipends and or release time is an extrinsic incentive to faculty to teach online. So colleges may want to think about possible ways to tie in these motivators when a CMS change is to occur. Savings from a lower contract cost could be set aside for stipends or to pay adjuncts to teach courses that faculty are temporarily giving up while they convert their courses. A sliding stipend process based on the number of courses needed to convert could be another option. I do not have a concrete solution but certainly this is an area to be evaluated.

**Future Research**

There should be additional research at colleges that are changing course management systems. Certainly there should be more studies about the impact on faculty during a transition from one CMS to another. Looking at factors such as time requirements, training, and technology issues during the transition, and studies about the impact on the faculty in relation to time spent working with students after the new CMS is rolled out to students are all valid topics to be researched.

Another topic to research should be a cost study. How much does it cost a college to change course management systems? The University of Alberta included licensing cost
comparisons in their Executive Summary. A study should include the direct costs such as licensing costs, server and maintenance costs, but also include indirect costs. Costs such as training, lost productivity costs in faculty and staff, IT support costs dealing with faculty and student questions, and costs associated with the distance learning staff. What is the average cost to train one faculty member? What is the average cost to convert one course over to the point that it is ready to be taught?

As I searched for schools in the process or schools that have already changed course management systems, I found information that may very well need some additional research. The information I was finding compared proprietary CMS providers such as Blackboard with the open source CMS providers such as Moodle or Sakai. There were several comments about the possibility of open source being able to react to instructor and educational needs faster because it was open source. Florida International University (FIU), who once used WebCT transitioned to Moodle from 2009-2011. During their search for a new CMS they noted that cost, usability, and support of proprietary companies such as Blackboard or Desire-to-Learn did not compare to the lower cost and support of either Sakai or Moodle, in their opinion. They also noted that open source course management systems evolve through community cooperation and development where programmers and educators freely share ideas and software (“What is Moodle” n.d., para 4). With higher education costs on the rise, more schools are going to look at cost. With opportunities for technology potentially available faster in open source, faculty may express more of an interest in having those changes available when and if they need them. Additional comparative studies between open source providers and proprietary providers could provide additional data to schools considering a CMS change.
A study that looks at the distance learning staff and what they go through during a conversion could provide important data to building a smooth transition. What do they experience? What would be beneficial to them?

Another area to study would be a CMS implementation from the view of the provider. What resources can they provide to schools? What are their recommendations when they talk to schools and do the schools follow those recommendations? Money is attached to many aspects of the contract of a course management system. For example, how much training is provided with the initial contract? What is the cost of additional training? Do the providers feel that the schools would benefit from buying more training directly from them? With money attached to so many aspects of a course management system such as training, hosting, updates, etc., it would be interesting to see if and where schools try to cut costs and the opinions of the providers as to what schools should buy with the new CMS. Are more and more schools buying the economy model with limited features and options from the CMS provider when they should really be buying more of a luxury model with more features and options? Is the cost savings really worth it? Maybe the research will show that the colleges are buying the luxury model with the needed tools and features as they enter into a contract with a new CMS provider.

The final area in which I would recommend to see studies surrounds the contracts that the colleges sign. Most often the CMS changes because of a contract renewal. What exactly is in the contract? Are there schools that have renewed with the same provider two or three contract periods? If so, why? Could the way the contract is written, shed some light on how and why colleges change CMS providers?
Summary

Changing from one course management system to another is a big process for colleges. As colleges use course shells not only in their distance classes but also in face-to-face and blended courses, changing from one CMS to another will continue to become a bigger process affecting more and more people in the institution and more and more students.

Many areas of education are tied together and are affected by the fast pace of innovation. Book publishers provide electronic course ancillaries that supplement the books. Many of those act just like a course management system with e-mail, grades, testing, etc. Those publishers are working to make those resources compatible with course management systems. For example, on July 25, 2011 Cengage Learning and Moodlerooms announced a partnership in which the tools currently provided by Cengage Learning on their textbook resource site will interrelate with Moodle. This will assist instructors with ways to improve student learning. Goals such as a single sign-on will help bring these two resources together in a seamless flow for the students with less hassle for both students and instructors juggling two separate sites. Cengage Learning and Moodlerooms will work jointly to deliver integration that enables assessment scoring information to be passed from Cengage Learning solutions to the Moodle grade book. Cengage Learning and Moodlerooms will co-develop new interfaces to expose services within Moodle and both parties will contribute code to the community (Nagel, 2011).

Book publishers know that course management systems are being used with more courses than just online courses. Course management system providers know they need to be able to tie into other software at colleges such as student services software. In
October of 2009, Datatel and Moodle signed an agreement to partner and provide integration of products to schools who have both pieces of software. The college in this study has Datatel which runs student registration, scheduling, student payments, and other student service needs at the college. By the college selecting Moodle, they have already been able to tie the grade book in Moodle directly to Datatel. Instructors select a grade option of either mid-term or final grades, they can review the grades make changes if needed, and select submit. Grades are automatically posted from Moodle to Datatel. These types of changes and partnerships will continue to change technology in higher education. Competition will come down to what software the college has and how does the book publisher or CMS provider tie in and work with that piece of software. Those are tools that these companies can use as they market their product and try to gain more and more contracts (“Datatel and Moodlerooms Partner”, 2011).

I expect that in the future, Datatel will help to sell Moodle and Moodle will help to drive more colleges to Datatel. Book representatives will sell more books to colleges that have a CMS that collaborates with the publisher. Innovation needs to make processes easier and more efficient. This should also apply to conversion of one CMS to another. I would think that a provider who has converted several schools from one particular CMS to another should know how to do that efficiently and with fewer hassles for the faculty, IT, and everyone involved.

San Francisco State University (SFSU) used programmers and faculty from their Computer Science Program to write conversion software for their conversion (Beatty and Ulasewicz, 2006). That is another way to try to make the conversion process smooth. There are many ways and many different tools to implement from both the college and
the CMS provider. But no matter how a college approaches a course management system conversion, they must put together the right team of people from all areas of the college including faculty, plan effectively, anticipate issues and try to be proactive to those issues, and provide appropriate support to employees and students throughout the process. Course management system changes are inevitable so the better planning the better the outcome.
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Appendix A

Course Management System

Transition Timeline
October 2010 – SCC online staff and IT staff continue to work with Datatel and Moodlerooms

**November 2010**

- Overview training on the ILP
- Pre-ILP configuration call
- Admin training and End User ILP Training
- ILP is configured with SCC Portal
- Continue to work with Moodlerooms and develop best practices to prepare for conversion to Moodle documentation and teaching video to be released to all faculty in late November

**December 2010**

- Pilot conversion courses and training materials turned over to Computer Information Technology to test
- ILP Testing and review

**January 2011**

- Pilot group enter training
- Review and Revise training as necessary
- Convert online course in preparation for full training

**February 2011**

- All online and hybrid faculty will begin training
- Continue to fine tune the ILP connection
- Review of the pilot test group courses.
March 2011

Completion of the online training of faculty for the conversion

Test the ILP to create the pilot group courses and enroll students in the pilot courses

April 2011

Pilot group of courses begin for the spring term

All summer course offerings (online/hybrid) will begin the rebuilding process

Course Provisioning considerations for summer 2011 term

May 2011

Summer term courses provisioned for use for summer 2011

Monitor the ILP connection as data moves from Datatel to Moodlerooms

Faculty finishes course migration process by May 6th

SCC Online review of summer term courses.

Suggested modifications given to faculty by May 31st

June 2011

Summer term courses are finalized

Ready for the summer 2011 term June 30, 2011
Appendix B

Institutional Approval Letter
January 3, 2011

Ms. Kathy Eitzmann  
1921 Philadelphia Drive  
Lincoln, NE 68521

Dear Kathy:

The Administrative Team discussed your request to approve your dissertation study as part of your PhD program. The Administrative Team approved conducting your study, Community College Faculty Perspective on Changing Online Course Management Systems: A Phenomenology.

Please work with Bob Morgan in conducting your study and sharing results as appropriate.

Sincerely,

Jack J. Huck  
President
Appendix C

IRB Approval
Comment: Dear Ms. Eitzmann and Dr. King,

Project #11545 titled, A “Community College Faculty Perspective On Changing Online Course Management Systems: A Phenomenology Inquiry” has been approved. You are authorized to begin your research.

Your stamped and approved informed consent form has been uploaded to NUgrant. Please use this form to make copies to distribute to participants. If changes need to be made, please submit the revised informed consent form to the IRB for approval prior to using it.

Your project was approved as an Exempt protocol, category 2.

Please allow sufficient time for the official IRB approval letter to be available within NUgrant.

Cordially,
Rachel Wenzl
Research Compliance Services Specialist
Human Research Protection Program
Appendix D

E-mail Invitation to Participate
From: Kathy Eitzmann

Sent: (Date and Time)

Subject: Research Study Request

I am contacting you to request your assistance in participating in my doctoral research project titled, “Community College Faculty Perspective on Changing Online Course Management Systems: A Phenomenology”. The purpose of this study is to understand the common experiences of full-time faculty who teach online as they change course management systems (CMS) from Angel to Moodle. Your participation will assist in developing processes that contribute to smooth transitions for faculty at colleges considering a course management system change.

Your name was given to me by the Distance Learning Department as a faculty member who has been through at least one other course management change before. My project is a qualitative study so I will be using interviews to gather data. The questions will be general questions about the transition process you are going through. I would greatly appreciate your assistance in this project.

I am guessing the interview will take about 45 minutes. The interview will be recorded. All data in the interviews are confidential and abide by the IRB regulations of the University of Nebraska. Names will also be confidential. Approval for conducting the research at Southeast Community College was approved by Dr. Jack Huck.

Interviews will be held on campus unless a request is made to hold the interview somewhere else.

My advisor on this project is Dr. Jim King from UNL. If you have any questions for me or Dr. King you can contact Dr. King at 472-3022. I can be reached at 437-2414 or by responding to this e-mail. Thank you in advance for participating in this research project.

Kathy Eitzmann
Doctoral Candidate
University of Nebraska-Lincoln
Appendix E

Interview Questions
**Demographic Questions:**

How long have you been teaching online?

How many course management system changes have you been through?

How many individual courses (titles) will you need to convert to Moodle Joule and will they all be ready for the Summer quarter of 2011 (July)?

**Research Questions:**

Please describe the experience of finding out that SCC was going to be changing course management systems?

Please describe your experience, chronologically if you wish, as you have gone through the experience of changing course management systems?

How did the experience affect you?

What changes do you associate with the experience in relation to teaching? In relation to technology? Can you provide some examples?

What feelings were generated by the experience?

Teaching is often split into three categories, teaching, professional development, and service to the college. During this transition did any of these areas increase in time commitment or suffer due to a shift in workload to another area? If so, which one(s)?

Are there any other comments about the experience that you would like to share?
Appendix F

Confidentiality Agreement

For Transcription Services
Confidentiality Agreement

Transcription Services

I, ________________________, transcriptionist, agree to maintain full confidentiality in regards to any and all audiotapes and documentation received from [researcher’s name] related to [her/his] doctoral study on [title of study]. Furthermore, I agree:

1. To hold in strictest confidence the identification of any individual that may be inadvertently revealed during the transcription of audio-taped interviews, or in any associated documents;

2. To not make copies of any audiotapes or computerized files of the transcribed interview texts, unless specifically requested to do so by [researcher’s name];

3. To store all study-related audiotapes and materials in a safe, secure location as long as they are in my possession;

4. To return all audiotapes and study-related documents to [researcher’s name] in a complete and timely manner.

5. To delete all electronic files containing study-related documents from my computer hard drive and any backup devices.

I am aware that I can be held legally liable for any breach of this confidentiality agreement, and for any harm incurred by individuals if I disclose identifiable information contained in the audiotapes and/or files to which I will have access.

Transcriber's name (printed)

Transcriber's signature

Date
Appendix G
Sample Interview Transcription
Six Pages from One Interview
I: Thank you for being here today. This is interview number one and can you tell me how long have you been teaching online?

R: It must be 6 years, 6½ I suppose.

I: And during that 6½ years, how many course management systems have you been through?

R: Well I came in just on the end of Lotus Notes. The only thing that was left on Lotus Notes when I started teaching were our Clinical Courses, which there is not a lot of theory or information on there. So I came in on Lotus Notes and then we had WEB CT, Angel and now Moodle so I guess 4.

I: And how many individual course titles will you need to convert to Moodle Joulel and will they all be converted for the July quarter?

R: Yes, all of the classes that I specifically teach have already been converted over.

I: And how many is that?

R: Oh gosh, I teach 4 theory courses and then clinical courses are just assigned by our program chair. And I usually have about one or two clinical courses per quarter. But I am not in charge of prepping those Clinical courses – other individuals are. So I am charge of prepping my main 4 theory courses from that transition from Angel to Moodle.

I: Explain the difference in radiology between what you consider a theory course versus a clinical course?
R: Our theory courses are all of the book courses, where we teach them all of the principles of radiation science, safety, any of the foundation ground work. The clinical courses, that is where the thing we only really do in our clinical courses we have a clinical quiz, at the end of each quarter, which is sight specific, so it has specific information or a specific theme to that clinical sight that they work in. Then we just have their clinical grades, grades that they obtained during their clinical rotation on patients. So there are really no assignments, well there are assignments – discussion assignments to meet the bare minimums. But there is no exams or weekly assignments or anything like that.

I: So you have 4 courses that you needed to get ready for Moodle. They are all done and ready to go?

R: They are getting near to being done. One of them is completely done, I’m actually teaching it in Moodle right now as part of a pilot group I guess.

I: What course is that?

R: It’s RADT 1147 and it’s specialized imaging.

I: Well let’s kind of go back to when this transition with Moodle was starting to take place. Please describe the experience of finding out that SCC was going to be changing course management systems?

R: One thing that I really noticed that stuck out about this one in contrast to the others that we have had so far, this one was much more fast paced. From the time that we first heard about it to suddenly now we’re running our pilot groups – honestly it may have been a year, but I was thinking less than a year from the time we first heard about it till where we are today. And that is the shortest time that we have had in a transition that I can recall. Going from WEB CT to Angel seemed like we had a little bit longer, things were paced a little bit better, spaced out a little bit – we had longer timelines. One thing I will say was that this transition seems like it has been a lot easier. The WEB CT to Angel
transition was just this sight of a nightmare. This one seems like it has gone relatively well. There are just a few hiccups but that is to be expected.

I: Is there anything that particularly would stand out that you feel the WEB CT to Angel transition seemed harder, is there anything that stands out about that?

R: I know one thing that we had a problem with was depending on how our exams were setup. I think that this is maybe more individualized our program, and maybe other programs are having it too. But whether or not you are working with question sets, question pools it seemed like we had a lot of exam issues in that transition there. It didn’t matter if you were using Exam View or not or if you were making them in… it just seemed like we were having a lot of issues tied to Exams in that transition. I would say that again, with our transition from Angel to Moodle, the one hiccup that we’re seeing is again, dealing with exams. It’s not as bad as the transition from WEB CT to Angel, but it seems like Exams are kind of a theme that sticks out whenever you are doing a transition. It seems like there is always some sort of glitch with exams transitioning over.

I: OK. And what type of glitches are you seeing now, in this course management system?

R: One thing, and I haven’t had it because I don’t use question pools, but some of my colleagues are using questions pools and basically if they didn’t name their question specific, it came down to naming the exam questions. So for example, it they didn’t name the exam unit 5 question number 26 anatomy, something like that – if they just named them Anatomy question number 26 you have all of these with the same name, just different numbers and you had to kind of go through sort our which one goes with which exam. And so that has been a nightmare for them, for me, it has been a little easier mine are grouped relatively easily for my transition, but I know some of my colleagues really it has been a nightmare for them to sort through those. And that is something that I don’t think any amount of foresight could have fixed. It just came down to naming the questions – we thought they would come over in the correct question sets or pools and they didn’t. They just came over as one large batch of questions so you might be working with close to 1,000 questions that you have to sort through and assign to each unit exam and then the final exam as well.
R: Ok. This is going to be difficult because Amy ---- (name removed) is in our office and so we tend to call on her a lot. I think first thing we heard you know, ok they were changing over to Moodle and of course we maybe did a little insight, or trading information because Amy is in our office, so maybe I even knew a little ahead of everybody else. We didn’t find out about the transition of doing away with Angel because Blackboard bought out Angel and I don’t know if this should be on the record or not, but apparently SCC has some hatred toward Blackboard, so they aren’t going to go toward Blackboard until they absolutely have to. So they announced that they were going to switch over to this Moodle system and then we were picked, I guess I don’t know how they picked us, but Bob Morgan, or somebody picked us as one of the pilot groups and so our online courses for this quarter were selected to be taught, live in Moodle, first time around. We went through our Moodle training, we were one of the first groups to go through our Moodle training. I guess if I am speaking candidly, I maybe was a little disappointed in the Moodle training, I understand their need to meet the, you cant individualize training, for this many faculty members, however I think that maybe for some individuals who really enjoy doing it by themselves and just sitting down and hashing through it themselves that is fine, I don’t necessarily have the time to do that. I would be more inclined to go to a face to face session – take out what I need and go forth from there. So I would have liked to have maybe seen some sort of some online training, some face to face training, or some sort of blended version of them or something. But at any rate, the Moodle training occurred and then as soon as that was finished, it was time to start prepping our live courses that were going to be a part of the pilot group. The course I am teaching right now live, is a lower credit course, it’s only a 4.0 credit course, it’s not as intense as some of the others being taught in Moodle right now that some of my colleagues are teaching. My transition into that has been relatively easy, I was able to transition my course in about 2 days and that was just working on it sporadically along with my other duties. So, mine took about maybe 2 or 3 days to transition over. Now, some of my other courses I will be doing will take longer, but…

I: When you say that it took 2 days of conversion, can you describe that? Did they move the course?
R: Yes, they moved the course over and basically you get just all of your content if just right there together and so you break it out into however you are teaching the course. Whether it is by units or weeks or whatever. On this particular course I teach in units and each week is one unit, so I broke everything out into units and made sure I had all the requirements from the distance learning team met. I had to have some sort of interaction tool – whether it was a discussion or a chat or whatever, I am using a WIKI and its not working great, but it will have applications, its just not fit for this class. But I am using my WIKI as my interaction tool for the students. All I had to do was take all of the information that had transitioned over, and they let me know when it was transitioned over, I just separated it out, went through made sure everything came across fine, you know I’m not too picky but I do get a little picky when it comes to Font and stuff like that so I made sure everything was looking uniform on each page and stuff. And really, outside of the exams, just sorting out the exam questions I didn’t really have a lot of issues.

I: You talked a little bit about mixed training offerings. Can you describe a feeling or a thought that you had when you went through the Moodle training that was provided? How did you feel when you…?

R: And maybe it’s because I’m from the ‘plug and play’ generation where you plug it in and it’s ready to go. I’m not one who is going to sit down and read an instruction manual, and that is exactly what this was. It was sit down, read everything about Moodle, take the quizzes over it and pass em or fail em redo them and go through all of these modules again. And there is a lot of content in there and a lot of content that I am not going to personally use and I’m pretty sure other instructors are not going to either. But from my standpoint it almost felt like ‘why do we have these instructional designers?’ It seemed like a lot of this stuff was were questions that you would maybe seek out council and instructional designer for – somebody like Sue or Amy or Jay. Which, I understand, that some people want to go ahead and fix that stuff themselves but, there was just a lot of content involved with that. I thought it was really intense, our pilot group, since we were one of the first ones to go through the training shell, our test was 120 questions and you had to get a score of 100 on it. And if you missed one, you had to go back and take the test all over again. This all occurred in a matter of 1 ½ weeks and when you tack that on to everything else you have going on, it makes for a heavy workload. A lot of this stuff I did from home when I could, my computer at home didn’t necessarily interface too well with some of that stuff so I had some problems there, but like I said, there was a lot of content to cover and learn and memorize in a matter of one week, take a test on it and then go straight into converting your courses. I thought they way that they did it from
WEB CT to Angel, the face to face classes they had and trainings they had, I thought those were more effective for people like me and most of my colleagues as well. That didn’t happen this time, not until the end – at the end they finally offered some.

I: So you would have preferred some more face to face early on? They did online at first?

R: Yeah, they just did completely online, and actually the face to face ones that they had almost seemed like an after thought. Because I had already had my – they were taking place this quarter – well I was already teaching my Moodle course live this quarter. So I think maybe a blended version probably would have been the best. And a little longer. I know their backs were up against the wall. You know, like I said earlier, this transition seems like it is one of the shortest or quickest conversions that we have made since I have been here. I think had they maybe allowed a little more time, they might have met a little less resistance from staff because I know their meeting a lot of resistance from the staff. I think a blended version would have maybe been a little more effective – you have maybe some of your online modules, and then some of them that were face to face. The gradebook on this, once you figure it out it seems relatively easy, but trying to figure out all the settings there is just a barrage of settings in here. Figuring out which ones you need for your class is a nightmare, you go back and read the module on gradebook and that really doesn’t clarify it much. Some of those things I think maybe would have been better suited for a face to face session.
Appendix H

Moodle Course Requirements
Required Elements in Moodle

The static top section may contain no more than **five linked items and five lines of text** because this section remains locked at the top of the sections and cannot be minimized or closed.

Links to introductory materials and activities should NOT be contained in the static section except as noted below. It is recommended to include most of these materials in the first section.

**Required items for the static section:**

- The announcements forum (appears by default)
- Instructor contact information & office hours
- Very brief instructions for getting started. (Ex. "Click the link titled ________ to get started.")

**Required Introductory Materials:**

- Welcome Message (alternative: may be included in the static block)
- Syllabus (alternative: may be included in the static block)
- Course Policies (alternative: may be included in the static block)
- Textbook & Course Materials Information
- When Instructor Will Be Online (alternative: may be included in the static block)
- Reference to the Student Help Resources link (top left corner of course home page)

**Required Introductory Activities:**

- Discussion Activity
- Mail Activity
- Quiz (not over course content) Suggestion: Quiz over Moodle functions, course policies, required text, etc.
- Drop Box Activity (if one is used in the course)

**Note:** Introductory Activities are optional in sequential program courses where students are already acquainted with each other and the software.

**Other Required Elements:**

- Moodle Calendar entries for key dates
- Moodle Gradebook for online and hybrid courses
- Course Evaluation link as the last item in the course
Appendix I

Blooms Taxonomy

Form
Instructor’s Name: | Date: March 14, 2011
---|---

**Course Title: RADT1234 – Advanced Patient Care Management**

<table>
<thead>
<tr>
<th>Target Audience</th>
<th>Senior level studies for second year radiography program students.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prerequisite Knowledge &amp; Skills</td>
<td>Program courses are completed consecutively.</td>
</tr>
<tr>
<td>Course Description from Syllabus</td>
<td>Critical thinking and imaging of the pediatric &amp; geriatric patient. Psychological, social, and economic needs of the elderly. Overview of various cultural groups and cultural competencies.</td>
</tr>
</tbody>
</table>

## Course Outcomes

<table>
<thead>
<tr>
<th>TLO #</th>
<th>Learning Outcomes</th>
<th>Bloom’s Level</th>
<th>Course Materials (What Resources?)</th>
<th>Instructional Approach (What Activity?)</th>
<th>Assessment Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLO 1</td>
<td>Differentiate the special needs of the pediatric patient and ways to modify radiographic procedures to accommodate them.</td>
<td>Analysis</td>
<td>Textbooks &amp; Lecture</td>
<td>Classroom discussion &amp; learning activities</td>
<td>Graded assignments, exam questions.</td>
</tr>
<tr>
<td>TLO 2</td>
<td>Analyze the psychological, social and economic needs of the elderly.</td>
<td>Analysis</td>
<td>Textbooks &amp; Lecture</td>
<td>Classroom discussion &amp; learning activities</td>
<td>Graded assignments, exam questions.</td>
</tr>
<tr>
<td>TLO 3</td>
<td>Investigate various cultural groups.</td>
<td>Analysis</td>
<td>Textbooks &amp; Lecture</td>
<td>Classroom discussion, internet searches and learning activities</td>
<td>Graded assignments, exam questions.</td>
</tr>
<tr>
<td>TLO 4</td>
<td>Apply professionalism and communication skills.</td>
<td>Application</td>
<td>Textbooks &amp; Lecture</td>
<td>Classroom discussion &amp; learning activities</td>
<td>Graded assignments, exam questions.</td>
</tr>
</tbody>
</table>
Appendix J

Moodle Course Evaluation Sheets
# Online Moodle Course Evaluation

<table>
<thead>
<tr>
<th>Evaluation Item</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is the top static section brief (no more than five linked items and five lines of text)?</td>
<td>✓</td>
</tr>
<tr>
<td>Does the top static section contain the required items (Announcements forum, instructor contact information and office hours, and brief instructions for students on how to proceed in the course)?</td>
<td>✓</td>
</tr>
<tr>
<td>Is the official college Syllabus in the course?</td>
<td>✓</td>
</tr>
<tr>
<td>Is the Syllabus an html document?</td>
<td>✓</td>
</tr>
<tr>
<td>Is the Calendar tool used?</td>
<td>✓</td>
</tr>
<tr>
<td>Does the instructor guide students to use Moodle messaging instead of their SCC email?</td>
<td>✓</td>
</tr>
<tr>
<td>Does the Introductory Materials &amp; Activities section contain the required items?</td>
<td>✓</td>
</tr>
</tbody>
</table>

If the course has an online component outside of Moodle (e.g., My ____ Lab), the following will be required:

<table>
<thead>
<tr>
<th>Evaluation Item</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is there an Assignment Checklist that shows what assignments are to be done in the outside lab site and what assignments are done in Moodle?</td>
<td>N/A</td>
</tr>
<tr>
<td>Is a direct link to the outside lab component provided as a web link in Moodle?</td>
<td>N/A</td>
</tr>
<tr>
<td>Is documentation provided that details how to access the outside lab site?</td>
<td>N/A</td>
</tr>
<tr>
<td>Is technical help information for the outside lab site posted in Moodle for students?</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Optional:</strong>  Is a Discussion Etiquette section in the course policies document? This section should include information on how inappropriate and inadequate postings will be handled.</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td><strong>Optional:</strong> Is a User Profile Etiquette section in the course policies document? This section should include information on how inappropriate profiles will be handled.</td>
<td></td>
</tr>
<tr>
<td>Is the course content completely built for the entire term?</td>
<td>✓</td>
</tr>
<tr>
<td>Is the course organized using the integrated content style?</td>
<td>✓</td>
</tr>
<tr>
<td>Is the flow of the course easy to follow and navigate?</td>
<td>✓</td>
</tr>
</tbody>
</table>
| Are documents easy to read (text style, text color, use of white space, width)? | ✓  
   I would suggest standardizing the font type and style throughout. Sans Serif is suggested. |
<p>| Does a spot check of content reveal documents free of typos, spelling, or grammatical errors? | ✓ |
| Are read-only documents set to open in the same window with the breadcrumb navigation visible? | ✓ OK See below |
| Are downloadable documents (rtf, pdf) set to open in the same window with the Force Download box enabled? <strong>Note:</strong> Because the pdf documents can open within the system, they can be set to open in the Same Window with the Force Download box checked, or they can be set to open in the Same Window with the Navigation set to Yes, Without Frames. Doc/docx or rtf documents must be set to open in the same window with the Force Download box checked. | N/A |
| Are images relevant and of good quality? | N/A |</p>
<table>
<thead>
<tr>
<th>Question</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are files in the appropriate format and linked properly?</td>
<td>✓</td>
</tr>
<tr>
<td>Are file sizes and loading time reasonable?</td>
<td>✓</td>
</tr>
<tr>
<td>Are outside web links provided within the course relevant to the content of the course and appropriate for an academic forum?</td>
<td>N/A</td>
</tr>
<tr>
<td>Are links to the iTunes server (converted PowerPoints, converted videos) set to open in the same window with the breadcrumb navigation visible?</td>
<td>N/A</td>
</tr>
<tr>
<td>Are web links outside of those to the iTunes server set to open in a new window?</td>
<td>N/A</td>
</tr>
<tr>
<td>Are links working properly?</td>
<td>N/A</td>
</tr>
<tr>
<td>Are due dates current?</td>
<td>✓</td>
</tr>
<tr>
<td>Are opening and closing dates set up appropriately?</td>
<td>✓</td>
</tr>
<tr>
<td>Is the Adaptive Mode in quiz settings disabled?</td>
<td>✓</td>
</tr>
<tr>
<td>Do the activated Review options in quiz settings adhere to the best practices?</td>
<td>✓</td>
</tr>
<tr>
<td>Is the Browser Security in quiz settings set to None?</td>
<td>✓</td>
</tr>
<tr>
<td>*Does this online course share similarities with a traditional classroom environment?</td>
<td>✓</td>
</tr>
<tr>
<td>*Does this course offer collaboration and components that actively engage students?</td>
<td>✓</td>
</tr>
<tr>
<td>*Are Advanced Discussion Forums used?</td>
<td>✓</td>
</tr>
<tr>
<td>Are the Advanced Discussion Forums set to Standard mode?</td>
<td>✓</td>
</tr>
<tr>
<td>Are Discussion Forum subscriptions set so that students can unsubscribe to forums if they wish to do so?</td>
<td>✓</td>
</tr>
</tbody>
</table>
Optional: Are the names of Activities included in the name of the items? For instance, Political Party Questionnaire, The Great Debate Discussion Forum.

**Is the Gradebook set up in the course?**

OK See below

Is the Course Evaluation link the last item in the last section of the course?

OK Set navigation to “Yes, without frame”

Do the assignments described on the Bloom’s worksheet match the assignments that are set up in the course?


*Level of interaction depends on the type of course being taught.*

**Instructors need to make sure that grades are calculating correctly. Designers are only checking that the gradebook is being used. N/A = Not Applicable**

Summary:

Be sure to set your user profile to expanded view for forums rather than flat, or you will have problems working with forums.

On uploaded files (ex. Marketing Calendar, Email & Discussion Etiquette), set the navigation to “Yes, without frame” to allow the students to navigate without accidentally closing out the course.

Chapter 6 Outline is hidden from students. **Items are still hidden in this section. This is fine if this is what you intend.**

It’s fine to remove the additional sections now.

On Intro Drop Box--start times and ends are at 2:55 p.m. Is that what you want? Due dates/times are disabled on Marketing Analysis Directions & Submission area. Is that OK? Same for Strategy assignment.

On Grade book--Sum of Grades will not work. We found that using Simple Weighted Mean of Grades gives the student an accurate “running grade.” Sum of Grades won’t ignore ungraded items but treats them as zero. There’s a really good Moodle doc in Section 9 of the Instructor Reference Center that will be a good guideline for help with a points-based gradebook. Also, are you sure you want your Intro Drop Box to be worth 100 points? Did you intend to hide the Marketing Analysis assignment in the Grade book? **OK**

Designer Approval:

<table>
<thead>
<tr>
<th>Designer Name</th>
<th>Date of Course Approval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name removed</td>
<td>April 18, 2011</td>
</tr>
</tbody>
</table>

Supervisor Approval:

<table>
<thead>
<tr>
<th>Supervisor Name</th>
<th>Date of Course Approval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name removed</td>
<td>4-25-11</td>
</tr>
</tbody>
</table>
Appendix K

Moodle Instructor Resource Center

Sample Page

(Collected in May, 2011)
**Topic outline**

**Instructor Reference Center**

- Announcements Forum

**Reference Information**

- SCC OnLine Team Contact Information Resource
- Required Elements in Moodle (online & hybrid courses) Resource
- Moodle & E-Learning Glossary
- Video: Accessing The Hub from Home file

**Best Practices**

"How To" information is in separate sections below.

- Firefox vs. Internet Explorer Resource
- Build Your User Profile Resource
- Direct Students to Complete Their User Profiles Resource
- Use a Sans Serif Font & Use Color Sparingly Resource
- Use a Table Resource
- Avoid Uploading Files Resource
- Provide Navigation Instructions to Students Resource
- Military Time Review Resource
- Remove Duplicate Blocks in All Your Courses Resource
- Do Not Use the Question & Answer Mode in Any Forum Resource
- Don't Use Forums--Use Advanced Forums Resource
- Carefully Use Forum/Advanced Forum Subscriptions Resource
- Use Advanced Uploading of Files Resource
- New Information about Quiz Settings Resource
- Additional Tips on Quiz Review Settings Resource
- Don't Forget to Preview as a Student Resource
- Printing Tips (to be shared with students) Resource
- Set PPTs and Links to Private Websites in Same Window Without Frame Resource
- Downtime for Maintenance Resource
- Provide Student Access to a Moodle Course Resource

If you want to use the same section summary blue bars as we have in this course, please see Section 5, “Center Page Organization.”

Provide students with tips about viewing converted PowerPoints with speaker notes. Two image files below may be downloaded and incorporated in your instructions. Choose the one that matches your converted PPTs.

- PPT with speaker notes--Template 1 (JPG Download) file
- PPT with speaker notes--Template 2 (JPG Download) file
FATAL ERRORS--What NOT to do in Moodle

- NEVER EVER--use Reset or Restore Resource
- Do Not Link Between Courses Resource
- Do Not Copy/Paste into Section Headings Resource
- Losing a Section--Not Really Fatal, Just Scary Resource

Conversion Information

Many of the conversion issues listed below no longer exist; however, we are leaving the documentation in place in case you encounter any of the described issues. Please be sure to check each item in your course to ensure there are no problems.

- Conversion Overview Resource
- Fixing Navigation for Uploaded Files Resource
  - Video Tutorial: Fixing Navigation for Uploaded Files
- Fixing Navigation in Pages Resource
- Fixing Broken Links to Uploaded Files Resource
  - Video Tutorial: Fixing Broken Links to Uploaded Files
- Fixing Broken Images in Pages Resource
  - Video Tutorial: Fixing Broken Images in Pages file
- Fixing Broken Links in an Assignment, Forum, or Imported Web Page Resource
- Editing Web Page Links from ANGEL Resource
- Editing an Item that Was a Page in ANGEL Resource
- Editing Uploaded Files--Overview Resource
  - Editing an Uploaded File within Course Files Resource
  - Editing an Uploaded File by Downloading, Editing, & Uploading Resource
  - Editing & Uploading an Existing File Resource
- Dealing with Announcements Converted from ANGEL Resource
- Other Information about ANGEL Items Resource
- Sample Course Screen of a Converted ANGEL course Resource
- Sample Section from Moodle Resource
- Important Information about Summaries & Labels Resource
- About the Syllabus Course Policies Agreement Resource
- Moodle Gradebook in Conversion file
- Adjusting Course Settings (Adding Sections) Resource
  - Video Tutorial: Rearranging Content into Separate Sections file
  - Video Tutorial: Cleaning up your question bank (do before revising quizzes) file
  - Video Tutorial: Creating a Quiz & Configuring Settings (Part 1) file
Appendix L

Literature Map