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MOODLE AS AN ONLINE LEARNING SOLUTION FOR A

THEOLOGICAL EDUCATIONAL PROGRAM

A Project

Presented to the

Faculty of

California State University,

San Bernardino

In Partial Fulfillment

of the Requirements for the Degree

Master of Arts

in

Education:

Instructional Technology

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by

Raul Lozada

March 2011

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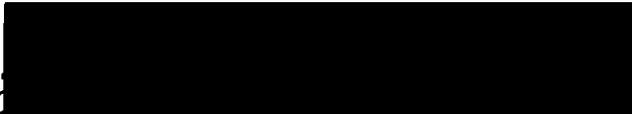
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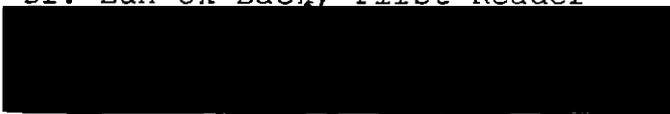
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Dr. Brian Newberry, Second Reader

ABSTRACT

The purpose of this project was to redesign one

theological educational program's face-to-face course

sessions for delivery in an online learning environment.

This project focused on developing the Moodle online

learning environment as well as the learning resources

(Appendix A) needed for one complete session to be

delivered online.   The design of the online environment and

learning resources were influenced by the findings from the

literature review; namely, Moore's three types of

interactions; Short, Williams, and Christie's social

presence theory; Horton's e-learning design process; and

Mayer's multimedia strategies for design.   This project was

restricted to a formative evaluation (survey) due to

limitations of time. The survey measured satisfaction in

visual design, usability, accessibility, and the

structuring of learning resources.   The survey yielded

positive results overall.   While Moodle served as a good

solution for the theological educational program's need to

eventually offer their curriculum online to adult learners,

further investigation related to learner-learner, learner-

instructor interactions and social presence theory is

needed. Additional conclusions, recommendations, and future directions are presented in Chapter Four.

ACKNOWLEDGEMENTS

DEDICATION

I would like to dedicate this work to Blessed John Paul II, the Congregation of the Resurrection, the Most Reverend Bishop Gerald R. Barnes, and to the memory of Virginia Lozada, my loving sister who died on March 18, 1994.

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CHAPTER ONE

BACKGROUND

Introduction

Educational institutions are rapidly adapting their

course delivery methods from a traditional face-to-face

instructional delivery to one that includes, in some

capacity, online learning. The Alfred P. Sloan Foundation

(2008) suggested this rapid rise in adaption for online

learning is the result of a "rapid evolution of the newly

accessible internet, and equivalent advances in computers,

software and communication bandwidth" (para. 1).

Another reason for this rapid adaption is the rise of

adult learners interested in online courses. Many adult

learners today maintain hectic schedules balancing work,

family, and personal interests with their education.

According to a study conducted by Allen and Seaman

(2009), in 2008, there were over 4.6 million adult learners

in the U.S. enrolled in at least one online course. In

addition, Allen and Seaman (2009) revealed that academic

leaders at all types of institutions (public, private for-

profit, private not-for-profit) experienced a growth in

demands from adult learners to offer their courses online.

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In line with these demands, leaders from a theological educational program from the Diocese of San Bernardino were met with similar demands from its adult learners: offer their courses online.

Statement of the Problem

The problem was to address the fact that no online courses existed within the San Bernardino Diocesan-based theological educational program. In addition, strong initial concerns existed with the stakeholders of this program and whether theological education could even be delivered online. As John Gresham (2006) suggested, a number of theological educational leaders hold similar concerns, arguing against the implementation of online learning due to its "disembodied nature" (p. 24). Yet, as Gresham (2006) suggested, this disembodiment concern about online learning should not hinder theological educators from adapting themselves, or their curriculum, to meet the needs of their learners.

Purpose of the Project

The purpose of the project was to redesign one of the existing theological educational program's face-to-face course sessions for delivery in an online learning

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environment, one created using Moodle, a free online learning management system. In addition, this project sought to meet the theological educational program's need to offer their curriculum online. Consequently, this project focused on the design and development of 1) the Moodle online learning environment and 2) the learning resources for one complete session delivered online using Moodle.

Significance of the Project

The significance of the project was a good starting point for the theological educational program to extend their curriculum and make it accessible in the "digital world" (Pope Benedict XVI, 2011, para. 3). The theological educational program could eventually offer their adult learners the necessary learning resources, opportunities for theological reflection and collaboration online, and the opportunity to balance hectic schedules while maintaining their theological formation and education. This project helped theological educators new to online learning catch a glimpse of how theological instruction could be designed and delivered to adult learners using the latest instructional technologies (e.g. Moodle and

Articulate). In addition, it is hoped that this project
significantly contributed to the positive diffusion of
online learning, especially within the field of theological
education.

Limitations

During the development of the project, several
limitations were noted. These limitations are the
following:

1. While Moodle is a free learning management
    system, the cost for server space was not free.
    A web host had to be purchased by the author.
    Another costly limitation was the Articulate
    Software. Though purchased with a student
    discount, the software ended up being very
    pricey. However, because of the promising
    features of the Articulate software (professional
    look and feel, good learning curve, vastness of
    content presentation possibilities) the author
    purchased the software as an educational and
    professional investment.

2. The Articulate software operates only with the
    Microsoft operating system. The author owned an

Apple MacBook Pro laptop. In order to utilize the Articulate software on the MacBook Pro laptop, the Microsoft Windows 7 operating system was purchased, along with a specialized booting software called Parallels. This Parallels software allowed the Microsoft operating systems to be installed and function with the Apple operating system (OS).

3. This project was limited to the completion of only one session. The lectures for the sessions were to be prepared by a subject matter expert (SME) in the Catholic faith. However, the SME for this project, a stakeholder from the theological educational program, maintained a busy schedule, and finding time to externalize the other sessions' lecture in written form proved challenging. As a result, the evaluation for this project was limited to a simple formative evaluation, rather than a summative evaluation, which could have involved a completed course track (5 sessions) and a beta test with the target audience.

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Definition of Terms

The following terms are defined as they apply to the project.

1. Articulate: specialized software for the creation of interactive learning resources.

2. Asynchronous: interactions with content or individuals that occur online at different times.

3. HTML: an acronym for "HyperText Markup Language". Used here to simply mean a web page accessible using the Internet.

4. Learning Management System: software that enables the creation, organizing, and managing of an online course and learning resources (Waterhouse, 2005).

5. Moodle: an acronym for Modular Object-Oriented Dynamic Learning Environment; a free learning management system.

6. Theological Reflection: "critical reflection on the praxis of faith" (Kinast, 1996, p. 11), and drawing from culture, experience, and faith tradition (Gros, 2001).

CHAPTER TWO

REVIEW OF THE LITERATURE

Introduction

Chapter Two consists of a discussion of the relevant literature for this project. Specifically, this review of the literature explored the online learning environment; social presence online; and multimedia strategies, ADDIE, and Horton's e-learning design process.

Online Learning Environment

Online learning is simply learning delivered exclusively via the Internet. Online learning via the Internet provides learners the convenience of anytime-anyplace and/or same time-different place learning. A learning management system (LMS) plays a significant role in the creation of an online learning environment. An LMS is software that enables the creation, organizing, and managing of online learning resources (Waterhouse, 2005).

Waterhouse (2005) suggests four major categories in which LMS functionality supports the designated goals of any online course: the distribution of course information; student-instructor and student-student communications;

student interaction with course resources; and online testing and grading. While there are proprietary LMSs to choose from, e.g. Blackboard and WebCT, the following discussion will focus on the first three major categories of LMS functionality in the context of using Moodle, a free LMS.

Distribution of Course Information

Hamuy and Galaz (2009) proposed that the Moodle LMS is capable of three types of informational level interactions. First, Moodle can communicate data or information about a course in the form of an online syllabus, which they imply is the most basic level of an instructor's presence in any online learning environment. Horton (2006) suggests the online syllabus to be the most important information available to learners of an online course. The syllabus "lays out the course schedule, requirements, and activities of the whole course" (p. 481).

Horton (2006) suggests that an effective online syllabus should contain, at a minimum, a title and identifying information (e.g. course name, course instructor and contact information); objectives of the course; a short description about the course; a weekly identifier of events, readings and activities; and a list

of recurring events and resources. One of the advantages of creating an online syllabus in an online learning environment is the utilization of hyperlinks. Hyperlinks are electronic links that provide "direct access from one distinctively marked place in a hypertext or hypermedia document to another in the same or a different document" (hyperlink, 2010).

A second type of interaction at the informational level is an informative interaction (Hamuy and Galaz, 2009). A practical example of this type of interaction within Moodle is the use of the course calendar or announcement features to offer "some additional data on the operative and practical processes of a course" (Hamuy and Galaz, 2009, p. 172). The third type of informational level interaction proposed by Hamuy and Galaz (2009) is a consultative interaction, which they propose as a type of interaction that involves accessing information and resources made accessible via the LMS database for learners to review without the possibility of feedback (i.e. downloading or accessing linked readings and/or presentations).

Moore's Three Types of Interaction

The second and third categories from Waterhouse's (2005) suggested categories in which LMS functionality supports the designated goals of any online course (student-instructor & student-student communications; student interaction with course resources) echoes the contributions of Michael G. Moore (1989) to online learning. According to Moore (1989), there are three types of interactions in learning activities: learner-instructor, learner-learner, and learner-content (Moore, 1989).

Learner-instructor interactions in an online learning environment, according to Moore (1989), are interactions necessary for the instructor to "provide counsel, support, and encouragement to each learner, though the extent and nature of this support varies according to the educational level of the learners, the teacher's personality and philosophy, and other factors" (para. 7).

Learner-learner interaction in an online learning environment, according to Moore (1989), is "inter-learner interaction, between one learner and other learners, alone or in group settings, with or without the real-time presence of an instructor" (para. 11). As Moore (1989) and

Ruth (2006) suggest, learner-learner interactions are extremely valuable and essential resources for learning.

Learner-content interaction in an online learning environment, according to Moore (1989), is "the process of intellectually interacting with content that results in changes in the learner's understanding, the learner's perspective, or the cognitive structures of the learner's mind" (Moore, 1998, para. 4).

Implementing Moore's (1989) three types of interactions suggest a philosophy similar to the one upon which Moodle was built: social constructionist. According to Moodle's (2009) philosophy statement, there are four main, related concepts of their social constructionist philosophy:

1. Constructivism: people actively construct new knowledge as they interact with their environments (Moodle, 2009, para. 2).

2. Constructionism: learning is particularly effective when constructing something for others to experience (Moodle, 2009, para. 5).

3. Social constructivism: extends constructivism into social settings, wherein groups construct knowledge for one another, collaboratively

creating a small culture of shared artifacts and

meanings (Moodle, 2009, para. 7).

4. Connected and separate: looking deeper into the

motivations of individuals within a discussion

(Moodle, 2009, para. 9); their behavior:

a. Separate: objective; factual; defensive

b. Connected: empathetic; accepts subjectivity;

listens and ask questions to understand

another's point of view.

c. Constructed: sensitive to both separate and

connected behavior; able to chose either as

appropriate to the current situation

(Moodle, 2009).

The Moodle online learning environment supports the

distribution of course information, the three types of

interactions as presented by Waterhouse (2005) and Moore

(1989), and the active learning processes of the social

constructionist philosophy.

Social Presence Online

Short, Williams, and Christie describe social presence

as "the salience of a person in a mediated conversation"

(as cited in Newberry, 2001b, p. 4). Gunawardena and

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Zittle (1997) describe social presence to mean "the degree to which a person is perceived as a "real person" in mediated communication" (p. 9). Rourke, Anderson, Garrison, and Archer (2001) define social presence as "the ability of learners to project themselves socially and affectively into a community of inquiry" (p. 1). Kehrwald (2008) defines social presence simply as "an individual's ability to demonstrate his/her state of being in a virtual environment and so signal his/her availability for interpersonal transactions" (p. 94).

Newberry (2001b) suggests there are seven different media types that can facilitate social presence. They are face-to-face, video conferencing, synchronous audio, text-based chat, e-mail, asynchronous audio, and threaded discussion. The numerical ranking applied by Newberry (Table 1.) to each media type (3 for high, 2 for medium, 1 for low) does not imply that one is better than the other, as each media type has its advantages and disadvantages (Newberry, 2001b).

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Table 1. Newberry's Media Types Ranking

Media Type	Feedback	Multiple cues	Message tailoring	Emotions	Totals
Face-to-Face [Synchronous]	3	3	3	3	12
Video Conferencing [Synchronous]	3	2	2	2	9
Synchronous Audio	3	1	·2	2	8
Text-Based Chat [Synchronous]	3	1	1	1	6
E-mail [Asynchronous]	1	1	2	1	5
Asynchronous Audio	1	1	2	1	5
Threaded Discussion [Asynchronous]	1	1	1	1	4

Note: Excerpt from Newberry, 2001b, p. 4. [Asynchronous] and [Synchronous] terms added by the author.

Important for instructional designers to consider when choosing media to facilitate social presence are factors such as "technology availability, time constraints, familiarity with the technology, task appropriateness of the technology and desired outcomes of the learning activity" (Newberry, 2001a). Garver Mastrian, McGonigle, Mahan, and Bixler (2011) suggest that the instructor's familiarity with a technology (media types) is a very important factor to consider, especially for determining strategies to use in the design of instruction (e.g. face-to-face, Web-enhanced, hybrid, or online environment).

How Instructors Accomplish Social Presence

"Sage on the Stage" is a moniker for instructor-centered classrooms in which instructors are the sole provider of information (Baylor & Ritchie, 2002) and many adult learners are most familiar (Cercone, 2008). However, this role of "sage on the stage" drastically changes within an online learning environment. Instructors new to online learning soon discover this instructor-centered, "imparter of knowledge" (Harlow, 2007) approach may need to be revamped to reflect a more learner-centered approach, or a people-centered approach (Mandernach et al., 2005). In a learner-centered approach, the learners' needs and desires

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are central to the design of an online learning environment
and the instructor's role transforms to creator and
facilitator of an optimal online learning environment
(Harlow, 2007, Ruth, 2006). In a people-centered approach,
instructors facilitate a community of learning that is
established online through dialog, discussion, and sharing;
i.e. within online asynchronous discussion forums
(Mandernach et al., 2005). As a result, "instructors play
a significant role in establishing online social presence
for online environments" (Aragon, 2003, p. 63).

However, it should be noted that instructors should
not be considered the sole factor for establishing social
presence online. Aragon (2003) argues that social presence
extends beyond the responsibility of the instructor.
Social presence should be initiated in the course design as
well as the participating students.

For example, in the course design, Aragon (2003)
suggests practical ways to accommodate social presence:
instructors can develop welcome messages; include images of
themselves; include student profiles; incorporate audio;
limit class size to a student-instructor ratio no higher
than 30:1; and structure collaborative activities. Aragon
(2003) also suggests some specific ways (Table 2.) in which

both the instructor and students can contribute to

establishing and creating positive social presence in

online learning environments.

Table 2. Social Presence Contributions

Contributions:	Asy	Syn	Instructor	Students
Discussion Forum	X		X	X
Promptly Answer Email	X		X	X
Provide Frequent Feedback	X	X	X	
Strike up a Conversation	X	X	X	X
Share Personal Stories/Experiences	X	X	X	X
Use Humor	X	X	X	X
Use Emoticons	X	X	X	X
Address Students by Name	X	X	X	
Allow Options for Addressing the Instructor	X		X	

Note: Adapted from Aragon (2003). (Asy: Asynchronous, Syn:
Synchronous).

The author added asynchronous and synchronous to *Table*

2 to demonstrate that, contingent upon the type of media

selected, contributions for social presence can be made using either asynchronous (i.e. discussion forums, email) or synchronously (i.e. chat, Skype) communications.

Student Expectations of Instructor Presence

Instructor feedback in an online learning environment is essential. Baker (as cited in Woods & Ebersole, 2003) conducted a study that suggests, "instructor immediacy in feedback was the strongest predictor of learning… among students" (para. 12). Vrasidas and McIsaac (as cited in Woods & Ebersole, 2003) suggest, "students felt that the lack of immediate feedback in the online portion of the course was discouraging and contributed to their limited participation in the online discussions" (para. 12).

While course design and student participation can increase the social presence in an online learning environment, research (Swan & Shih, 2005) suggests that an instructor's perceived social presence in an online learning environment can be a far more influential factor than the perceived social presence of peers. To help instructors positively perceive their presence online, researchers (Ascough, 2007; Fabry, 2009) suggest implementing the Seven Principles for Good Practice (Chickering & Ehrmann, 1996) as guiding principles that

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promote social presence. For example, Ascough (2007) suggested that an instructor that follows the Seven Principles of Good Practice promotes community within the online learning environment as a hospitable host. The Seven Principles of Good Practice (Chickering & Ehrmann, 1996) are:

1. Encourage contact between students and faculty.
2. Develop reciprocity and cooperation among students.
3. Encourage active learning.
4. Give prompt feedback.
5. Emphasize time on task.
6. Communicate high expectations.
7. Respect diverse talents and ways of learning (Chickering & Gamson, 1987, as cited in Garver Mastrian et al., 2011, p. 53)

Social presence online involves the ability of a person to successfully demonstrate their state of being in an online learning environment by signaling availability for interpersonal communication with another person. This social presence, this availability for interpersonal communication, is facilitated through the use of various asynchronous or synchronous media types. An instructor's

social presence via immediate feedback is an expectation of

learners, and can be more influential to the learner than

the feedback from their peers.

<center>Multimedia Strategies, Instructional
Design and Horton's Design Process</center>

Multimedia Strategies

Multimedia is the "integrated use and display of

visual images, motion, sound, data, graphics and texts,

with the user being able to interact creatively with the

display" (Schlosser & Simonson, 2006, p. 182). Specialized

software tools, such as PowerPoint and Articulate, allow

instructional designers to produce interactive multimedia

slide shows presentations or interactive learning objects.

However, inappropriate use of words and pictures can lead

to a poorly designed multimedia slide show presentation or

interactive learning object that can hinder the learning

process (Cooper, 2009) by exceeding the cognitive load

capacity of the learner.

Cognitive load is a theory developed by John Sweller

(Leonard, 2002), which emphasizes the limitations of a

person's working memory. As Sweller and Chandler (1994)

suggested, some material is difficult to learn because of

the cognitive load capacity imposed on a person's limited

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working memory. As Sweller and Chandler (1994) suggested,

working memory stores a person's long-term memory in the

form of bite-sized chunks of information called schemas,

which are "cognitive constructs that organizes information"

(1994, p. 186). Leonard (2002) synthesized the principles

of cognitive load theory, which include:

1. Working memory is limited, and once exceeded, no
    learning can take place.

2. Long-term memory is unlimited.

3. Learning involves engaging the working memory
    (Leonard, 2002, p. 27)

According to Mayer (2002), cognitive theory and

multimedia principles should be considered for effective

multimedia design. Mayer (2002) points to three cognitive

theory-based assumptions about how people learn from words

and pictures:

1. Dual Channel Assumption: the human cognitive
    system has two distinct channels (Eyes - visual
    pictorial; Ears - auditory-verbal).

2. Limited Capacity Assumption: each channel (Eyes,
    Ears) has a limited capacity for holding and
    manipulating knowledge.

3. Active Processing Assumption: meaningful learning occurs when learners engage in active processing within the channels (Mayer, 2002, p. 60).

In essence, effective use of words and pictures can foster meaningful learning. Meaningful learning is defined by Mayer and Moreno (2003) as "deep understanding of the material, which includes attending to important aspects of present material, mentally organizing it into a coherent cognitive structure, and integrating it with relevant existing knowledge" (p. 43).

Mayer (2005) offered eleven multimedia strategies as guidelines that instructional designers can refer to when designing multimedia presentations and/or learning objects for instruction:

1. Coherence effect: People learn better from multimedia messages when extraneous words, pictures, and sounds that are not directly relevant to the explanation are excluded rather than included (Mayer, 2005, p.8).

2. Modality principle: People learn better from animation and verbal explanations in spoken form than from animation and onscreen text (2005, p.9).

3. Multimedia principle: People learn better when presented with words and corresponding graphics (e.g., animation, video, illustrations, pictures) than from words alone (2005, p.11).

4. Personalization principle: People learn a verbal explanation or a verbal description of a procedure better from multimedia lessons when the words are in conversational style (e.g., including first-person and second-person constructions) rather than formal style (2005, p.12).

5. Pre-training principle: People learn better from a multimedia presentation when they already know about the components in the presentation (i.e., prior to the presentation learners can visually recognize, name, and describe the behavior of each major component) (2005, p.14).

6. Prior knowledge principle: Low prior knowledge learners benefit more from well-designed multimedia messages than do high prior knowledge learners (2005, p.15).

7. Redundancy principle: People learn better from animation and narration than from animation,

narration, and onscreen text (i.e., present

verbal explanations solely in spoken form rather

than in both spoken form and printed form (2005,

p.16).

8. Signaling principle: People learn better from

    narrated animations when the narration highlights

    the key steps and the links between them (i.e.,

    organize the narration to include a preview

    summary that outlines the main steps, and pointer

    words such as *first, second, third,* or *as a*

    result) (2005, p.18).

9. Spatial contiguity principle: People learn better

    when corresponding words and graphics are placed

    near rather than far from each other on the

    screen (i.e., place each set of printed words

    near rather than far from the portion of the

    graphic they describe) (2005, p. 19).

10. Temporal contiguity principle: People learn

    better when corresponding animations and

    narration segments are presented at the same time

    (2005, p. 21).

11. Voice principle: People learn better from

    narrated animations when the narration has a

human voice with a standard accent rather than a machine voice or an accented voice (Mayer, 2005, p. 22).

Instructional designers could consider these principles when using specialized software tools, such as PowerPoint and Articulate, to produce interactive multimedia slide show presentations or interactive learning objects designed for meaningful learning.

Instructional Design Generalities

ADDIE is an acronym that means Analysis, Design, Development, Implementation, and Evaluation. Originated in 1975 by the Center for Educational Technology at Florida State University for the U.S. Armed Forces (Clark, 2010), ADDIE is a systematic instructional design process for the creation of instructional resources.

The analysis phase is intended to collect information related to performance requirements, tasks, and/or determining any necessary qualifications of the learners. A good analysis ensures right instruction is designed and developed for the identified tasks to be learned. Analysis should be conducted before the design and development stages (U.S. Air Force, 2002).

The design phase is where the majority of decisions
are made. Data collected in the previous analysis stage
assist in determining the basic structure of the
instruction. The instructional objectives are created in
the design phase, and assessments, methods, media, and
instructional strategies for delivery are determined (U.S.
Air Force, 2002).

The development phase is when the instructional
resources are developed, validated, and revised, as
appropriate. In this phase, instructional designers carry
out the necessary activities of writing, producing, and
building the materials (i.e. training guides, video or
audiovisual materials, web pages, learning objects, etc.).
The development phase is also the period in which the
instructional designer conducts numerous alpha tests to
test user interface and to determine overall usability
(Piskurich, 2006).

The implementation phase is simply putting into
operation the created product, usually by conducting a beta
test. Beta testing means to conduct an evaluation for a
course or product using actual users (Piskurich, 2006).

The evaluation phase is considered a continuous
process, meaning that evaluation is conducted during the

analysis phase and continues throughout the life cycle of a created product. There are two types of evaluations that can be conducted by the instructional designer. The first is a formative evaluation, which consists of evaluating both the process and the product during the analysis and design phases. Also, formative evaluations are those validations, or feedback, received during the development phase through the testing of the product with selected users (alpha tests). The second type of evaluation that can be conducted during the evaluation phase is summative evaluation. A summative evaluation is completed during the operational tryouts at the end of the development phase. Summative evaluation is considered the last gathering of feedback regarding the completed product before actual implementation (U.S. Air Force, 2002).

Horton's E-Learning Design Process

ADDIE is a systematic instructional design process for the creation of instructional resources. However, the creation of multimedia objects for online learning does not follow a smooth, straight and systematic path like the one proposed in the ADDIE Model.

Horton (2006) modified the ADDIE process as follows: Analyze, Design, Build, Evaluate, Re-analyze, Re-build, and

Evaluate, etcetera. Horton (2006) consolidated the Develop

and Implementation phases of ADDIE into Build for two

reasons: "One, since e-learning is delivered over networks,

the implementation is a natural part of development. And

two, since the process is iterative—as opposed to

sequential, implementation does not lag development" (p.

45). Horton's (2006) process is intended to make steady

progress in the Build phase from crude sketches and

concepts to fine-tuning a polished product.

Following multimedia strategies intended to reduce

cognitive load can enhance learning. The ADDIE

instructional design model can serve the systematic design

of learning resources. ADDIE can even be modified

successfully to design and develop learning resources for

the online learning environment.

Summary

The theoretical framework extracted from this review

consisted around the designing of the online learning

environment with Moore's three types of interactions in

mind. In addition, social presence of the instructor can

be deliberately designed within the initial course design.

Another useful framework extracted from this literature

review included the use of multimedia design principles to ensure meaningful learning when producing interactive multimedia slide show presentations or interactive learning objects. Lastly, ADDIE could be utilized as a systematic process for designing and developing this overall project, while executing Horton's e-learning Build phase, which combines the Development and Implementation phases as an iterative process, to produce the online learning resources for this project.

CHAPTER THREE

PROJECT DESIGN PROCESSES

Introduction

Chapter Three documents the steps used in developing

this project. Specifically, the project design process

focused on the development of an asynchronous online

learning environment within Moodle. In addition, the

majority of the focus in development ended up surrounding

the production of student-content interactions for the

online learning environment. The following discussion will

explain the ADDIE systematic process used for this

project's development.

Analysis

Three main activities occurred during the analysis

phase for this project: one, an initial search and review

was conducted of theological educational programs that have

implemented online learning; two, the author facilitated a

focus group involving several individuals involved in a

theological educational program in the Diocese of San

Bernardino; and three, a document recovery was conducted

that gathered copies of existing learning resources from the current theological educational program.

Search and Review

First, a brief search and review was conducted using an Internet search engine to locate any Roman Catholic theological educational programs that may have ventured into the online learning realm. The following terms were inputted into the search field: *theological education* and *online learning* and *catholic*. The author discovered from the United States Conference of Catholic Bishops' (USCCB) website a list of Catholic distance learning programs available to adults. There were a total of 43 Catholic universities and colleges across the United States and Puerto Rico listed in the USCCB website that offered online formational opportunities to adults (USCCB, 2010).

The Catholic Distance Learning Network (CDLN) was another major Catholic online learning endeavor discovered from the Google search. The Seminary Department of the National Catholic Educational Association (NCEA) sponsored this endeavor (National Catholic Educational Association, 2007), which was intended to educate future priests about online learning, at the same time, cultivate their human, spiritual, intellectual, and pastoral formation (NCEA,

2007). Browsing within the CDLN website, a number of student-content interactions were found, specifically in the *Online Certification Course Modules* section and *Online Workshops Open to Everyone* section of the website (NCEA, 2007). The student-content interactions in both sections included both lectures delivered as audio podcasts and/or videos, links to articles and other reading materials, and workshop topics related to online learning.

Focus Group

Second, a focus group was conducted in which members of a theological educational program in the Diocese of San Bernardino participated. All data collection was conducted under the review of an Institutional Review process (see Appendix B). Using the questions created for the focus group (Appendix C), an analysis of the current program's learners, instructors, and tasks was conducted.

It was discovered that the learners of the theological educational program were adults with an estimated varying degree of technological skills and varying degree of experience with online learning. In addition, these adult learners maintain hectic schedules, juggling responsibilities related to family, children, and work.

It was also discovered that the instructors had a
limited degree of technological skills with no previous
experience with online learning. While the instructors of
the program have no previous experience with online
learning, the program does maintain a Google web site to
make information available about the program and provide
access to some learning resources (i.e. PowerPoints, Word
documents) to the participants of their program. In terms
of the instructor's overall use of technology, they solely
use computers to create and deliver PowerPoint
presentations and Word documents, and they communicate with
each other or students via email.

The tasks in which learners are expected to engage in
face-to-face sessions consists primarily of the following:
participate in group and individual prayer; absorb
presentations delivered via a lecture by the instructor;
contribute in theological reflection with peers in groups
of three to four; read from a Roman Catholic Bible and
official documents of the Roman Catholic Church; and
complete homework assignments each week.

Document Recovery

A delivery analysis was conducted "to determine the
best... delivery method for the course content" (Piskurich,

2006, p. 89). The author was given copies of existing
learning resources from the current theological educational
program. These included the following face-to-face
learning resources used in the initiating course, which
consisted of five sessions: PowerPoints used for the face-
to-face lecture presentations; Word documents that
included: weekly prayers and homework assignments; a
Scripture Passages review activity and an informal
assessment activity (Disciple vs. Believer) for session 2;
and a hard-copy of the official text used throughout the
five sessions.

From analyzing the documents recovered, the following
content goals were identified and formulated for this
project:

- Content for the online theological educational
  course is designed to guide participants to
  develop and/or nurture their:
  - Relationship with Christ
  - Role as a committed disciple of Christ
  - Use of time, talent, and treasure.

To measure if learners master the content, the author
settled on having learners theologically reflect on and
respond to rhetorical questions posed in the discussion

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forums and/or journals. The activity of learners responding to questions would serve as the primary activity for facilitators to determine whether or not learners mastered the content. Learners would be required to make all posts assigned, as well as be socially present to at least two other peers; meaning, they would be encouraged to read and respond to the responses of their peers.

In addition, as Horton (2006) suggested, it was determined to include short tests intended to help learners measure their own progress on mastering the content. These tests could be designed within the lecture slide shows using the Articulate software. Scores would not be officially recorded and descriptive feedback would be designed into both right and wrong answers.

Design

Asynchronous Course Design for Interactions

Due to the simple fact that the adult learners are juggling their responsibilities on a weekly basis, as well as the limited degree of technology skill of the instructors, an asynchronous design was chosen for the Moodle online learning environment; meaning, all interactions in the online environment will be designed to

happen at different times and different places. An

asynchronous design would allow the adult learners to

access and engage learning resources (learner-content

interaction) and communicate with the instructor (leaner-

instructor interaction) and their peers (learner-learner

interaction) at their own time and place of convenience.

In addition, an asynchronous course design would allow the

instructors with limited technological skills the time to

build their skills and familiarize themselves with the

Moodle online learning environment, especially for

facilitating either of the interactions and/or providing

valuable feedback to the learners within the discussion

forums, journals, and/or email messages.

Design for Learner-Content Interactions

In face-to-face sessions, instructors usually deliver

content to the learners via a lecture along with a

typically designed PowerPoint presentation with words and

images. Within or after the lecture, the adult learners

usually gather in small groups of 3-4 to theologically

reflect on some rhetorical question posed by the

instructor. For asynchronous learner-content interaction,

it was decided to provide the lectures as the primary

content and the lectures would be provided to the learners

in a number of file formats (i.e. HTML slide show, Word, PDF). The HTML slide show is basically a teacher-centered PowerPoint presentation converted into a learner-centered interactive multimedia presentation using specialized software (Articulate).

To accomplish this task of externalizing the lecture into its various digitized formats, a stakeholder from the theological educational program served as the subject-matter expert and provider of one session's lecture in its written format: 1) as a transcription of the lecture in a Word document and 2) within each slide of the existing PowerPoint slide. In addition, the existing PowerPoint presentations would be modified following multimedia principles as presented in Chapter 2.

The following outline was created from the transcription of the lecture:

1. The Call to Follow Jesus

   a. Lectio Divina Review

   b. Lectio Divina Prayer

   c. We are Called to be Disciples

2. Discipleship Begins in Baptism

3. Discipleship is a Life-Long Journey

4. Stewardship

a. Stewardship is a commitment

5.   Stop and Think

6.   Discipleship or Believer?

   a. Discipleship or Believer Assignment

7.   Lectio Divina Game (added short test)

8.   Discipleship Word Quiz (added short test)

Design for Learner-Learner Interactions

For asynchronous learner-learner interaction, it was decided to design for the answering of rhetorical questions posed by the instructor using Moodle's discussion forums and journals. Each participant would be responsible for answering the rhetorical question after engaging in the lecture delivered online and/or any other learning resources. In addition, each student would be responsible to read and respond to at least two of their peers' responses. While the dynamic of the group interaction can be expected to happen at different times and places within discussion forums, this asynchronous dynamic could yield richer participation and interaction amongst peers (Ascough, 2002).

Course Design for Instructor Presence

The literature review showed that the social presence of the instructor could be designed initially into the

course. To accomplish this, it was decided to produce a number of resources specifically for the instructor's presence; namely, create an online syllabus, a weekly orientation that includes a picture of the instructor, their contact information, and clear instructions and expectations for the learners each week.

Suggested Process Design

The following is an outline of the suggested process designed for learners to engage the instructional content created for Session 2:

1. Engage the lecture *The Call to Follow Jesus.*

2. Read chapter 1, pages 13-16, of the document *Stewardship: A Disciple's Response.*

3. Engage the Christian Value Gymnasium activity.

4. Review the *Scripture Passages – Believer or Disciple* slide show.

5. Take the Quiz *Disciple or Believer?*

6. Respond to discussion questions in Session 2 Discussion Forum.

7. Respond to journal question in Session 2 Journal.

Development

Development involved three main activities: one,
setting up the Moodle online learning environment; two,
producing the learning resources; and three, designing
instructor's social presence initially in the course
design.

Developing Moodle's Online Environment

Server space was purchased, and a standard
installation of Moodle was placed onto the server for this
project (http://ragulazania.com). An installation video
created by a fellow graduate student, Mark Rousseau-Smith,
was accessed to guide this installation process (Rousseau-
Smith, 2010). A lengthy discussion about the installation
will not be presented here. Instead, the author will
discuss some of the changes made to the Moodle online
learning environment after the installation was
successfully completed.

One of the first changes made to the Moodle online
learning environment was the appearance of the overall
environment. By default, Moodle has a number of themes
that can be chosen for the overall appearance of the online
environment. However, the author found none to be
aesthetically pleasing to the eye. There are a number of

Moodle themes available for purchase and some are free. A theme aesthetically pleasing to the eye was found and purchased from NewSchool Learning's website (http://newschoollearning.com/). NewSchool Learning is an official Moodle Partner and their theme designs are simple and appealing. The name of the theme purchased was called Vitality, and a total of nine different background colors could be chosen: aqua, blue, brown, forest, gray, lime, purple, red, and ruby. The blue background color was chosen (See Figure 1).
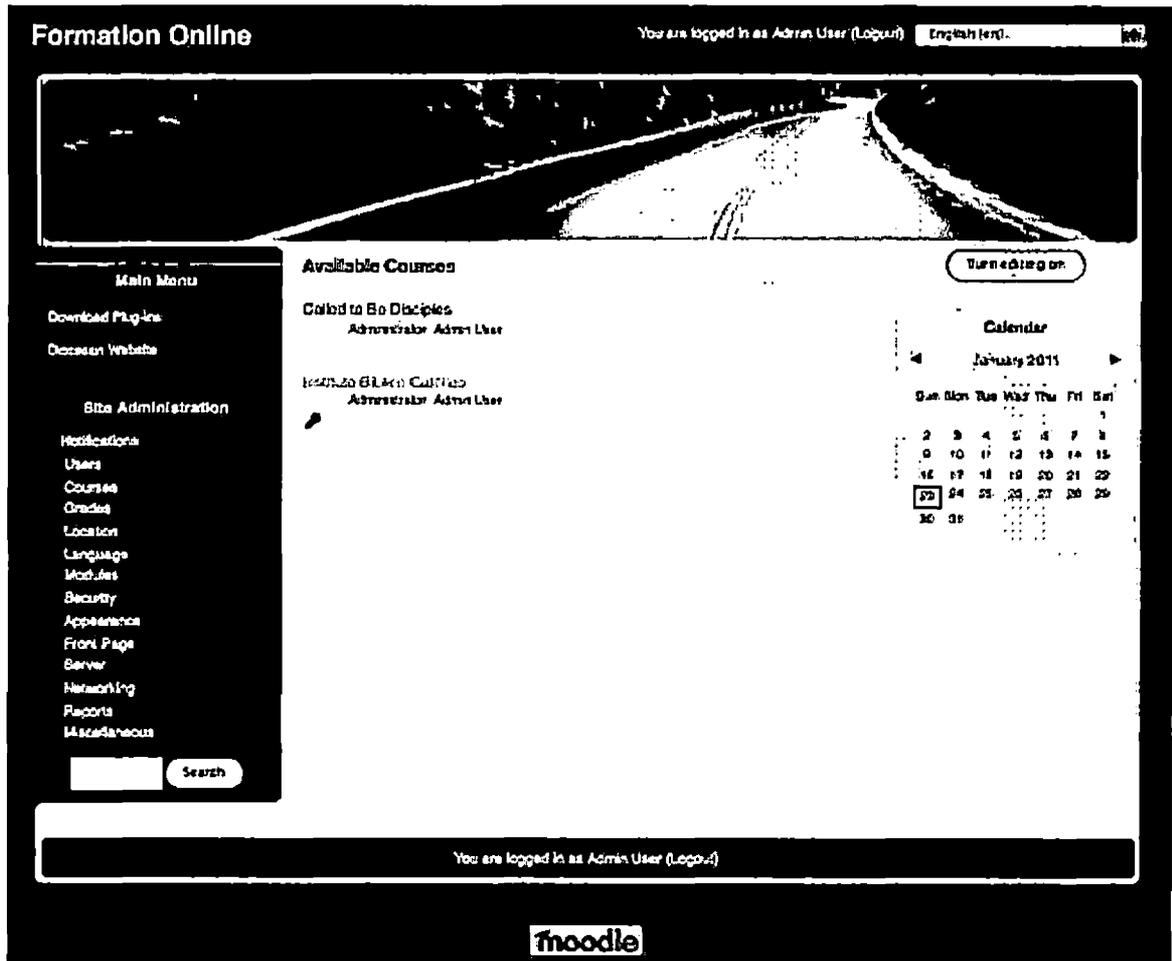
Figure 1. Screenshot of NewSchool Learning Theme

Another major change made in order to meet certain

design decisions, in particular, for the use of lectures in

various formats, was the maximum upload size of files.

Moodle's default upload file size for a course is 2 MB,

which is not nearly enough to upload large audio files or

slide show presentations. Consulting Moodle's website and

the discussion forums for how to increase the maximum

upload size revealed making changes to the maximum upload

size in the PHP.INI file. However, the author could not

find the PHP.INI file to make the changes and had to

consult Host Monster's technical services via telephone.

Once the technician at Host Monster understood what was

trying to be accomplished, within seconds, the maximum

upload size was changed to 20 MB.

Adding an audio file within Moodle can be a simple

process. The author was able to record an introduction and

orientation narration, upload it, and make a link to it on

a Moodle web page. The Moodle software includes a player

that allows anyone to simply click and listen to the audio

file right from the web page. In addition, adding

discussion forums, journals, a document, a web page, or any

other resource or activity in Moodle for any of the

interactions can be a rather simple process, so not much

effort will be spent discussing this development.

However, what becomes of the many learning resources made

available to the learners is simply a list of hypertext

words that link to its relevant resource (See Figure 2).

Called to Be Disciples

Home ▷ CBD

Activities

Forums

Journals

Resources

Administration

Enroll me in this course

Weekly outline

☐ Introduction & Orientation for Called To Be Disciples
🗎 Course Syllabus
🗎 Course Schedule
🗎 Stewardship: A Disciple's Response

January 8 - January 14   ☐
  ☐ Session 2 Orientation
    𝒫 Session 2 Discussion Forum
    🗎 Session 2 Journal
    ☐ Session 2-Christian Value Gymnasium
    𝒫 Session 2 Gymnasium Forum

Home

Figure 2. Screenshot of Course Outline

Aesthetically, this look was not that pleasing. In order to address this plain appearance, the image editing software, Photoshop, was utilized to create custom text and graphics (See Figure 3). The custom images were inserted into the course outline by using the "Insert a label" resource in Moodle.
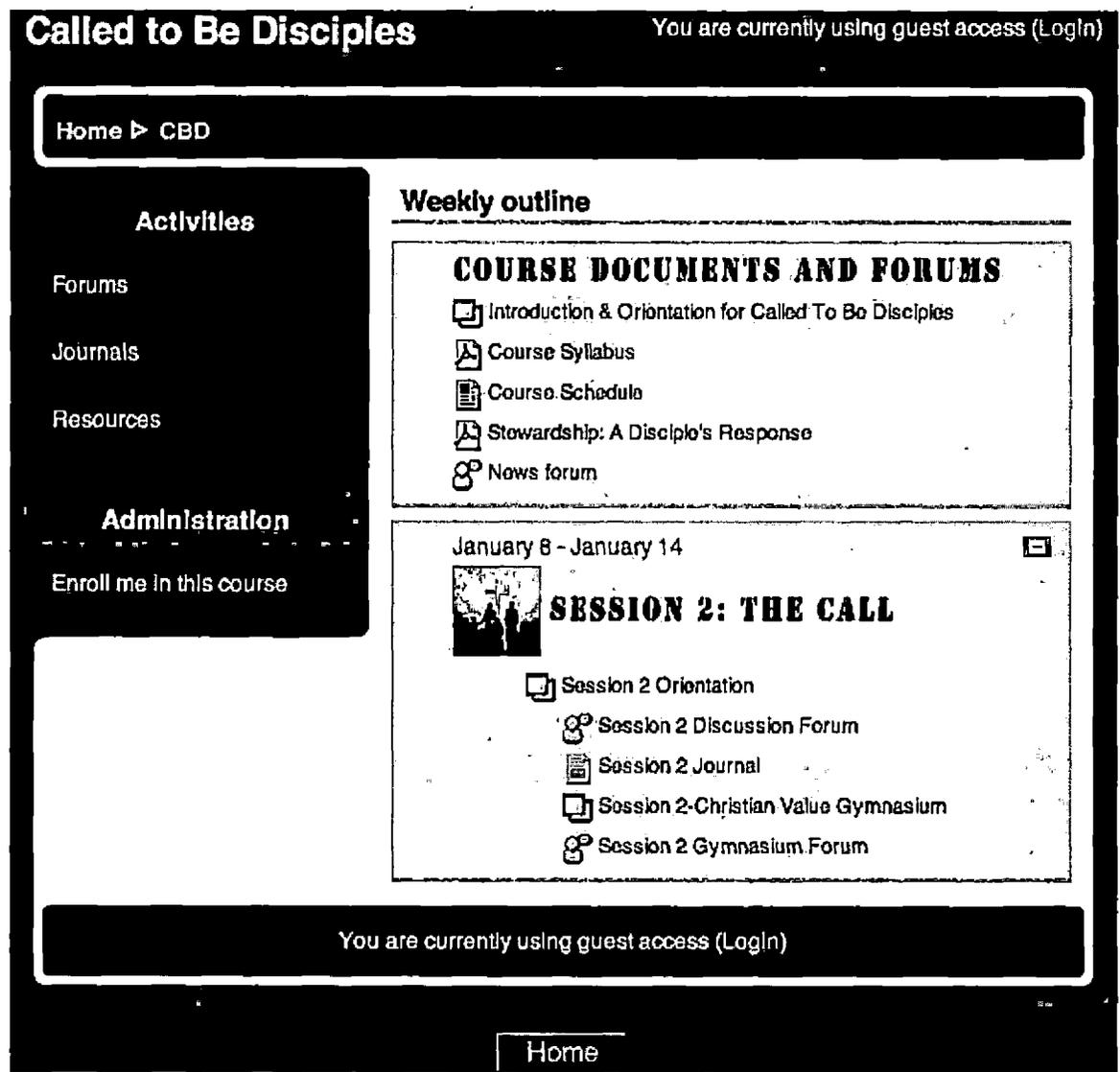
Figure 3. Screenshot of Custom Text and Images

Developing Learning Resources

        To create the lecture in its audio format, a tutorial

(See Figure 4; See Appendix A) was created using Jing, a

free screen capturing software from TechSmith

(http://www.techsmith.com/jing/) to assist the members of

the theological educational program to eventually capture

an audio recording of the lecture using GarageBand. In

addition, though no audio rendition of the lecture was used

for this project, a process was formulated for the eventual

recording of the lecture using GarageBand.
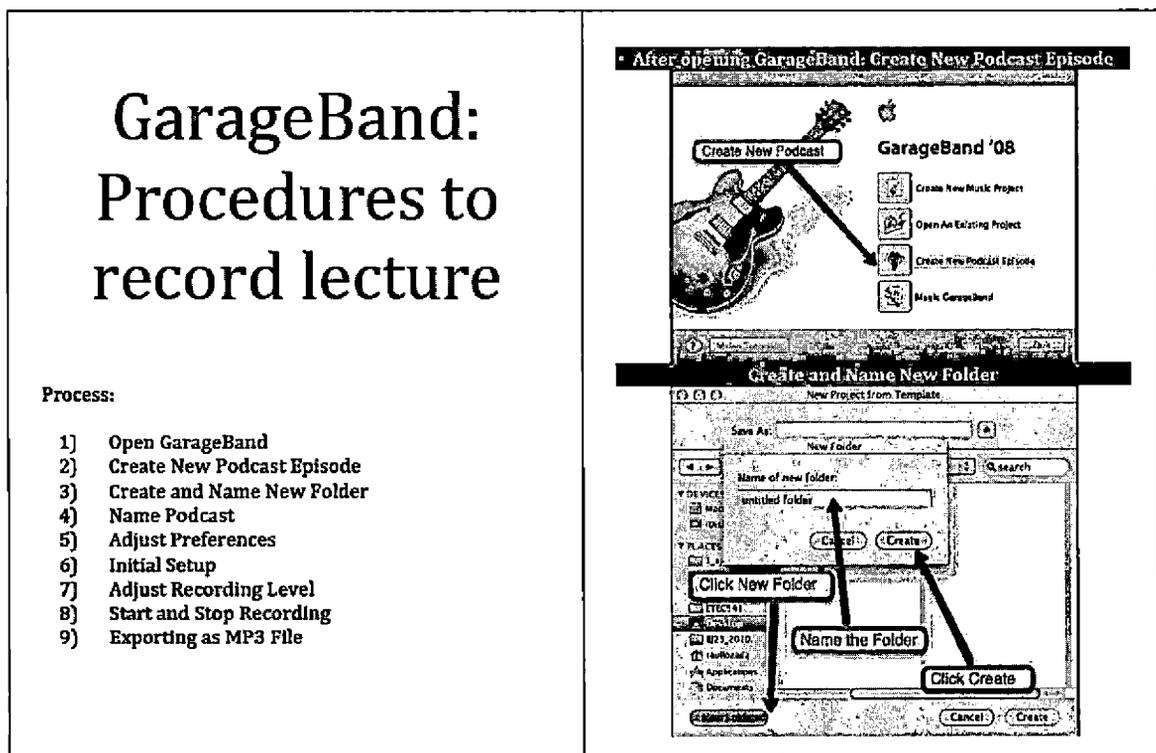
Figure 4. Screenshot of GarageBand Tutorial

This audio recording process included: 1) write the lecture

in a Word document, 2) copy paste the words from the Word

document to each PowerPoint slide according to what would
be said in each slide, 3) record the lecture in GarageBand
and include the following commands in the audio narration
of the lecture: say "Slide One" before reading slide one,
say "Slide Two" before reading slide two, etcetera. The
purpose for this last procedure is to ensure the audio is
synched with the correct PowerPoint slide. With these
commands inserted in the audio file, synching the audio
with the slides in Articulate is much easier. The slide
number commands can then be removed from the audio
narration using Articulate's Audio Editor (See Figure 5).
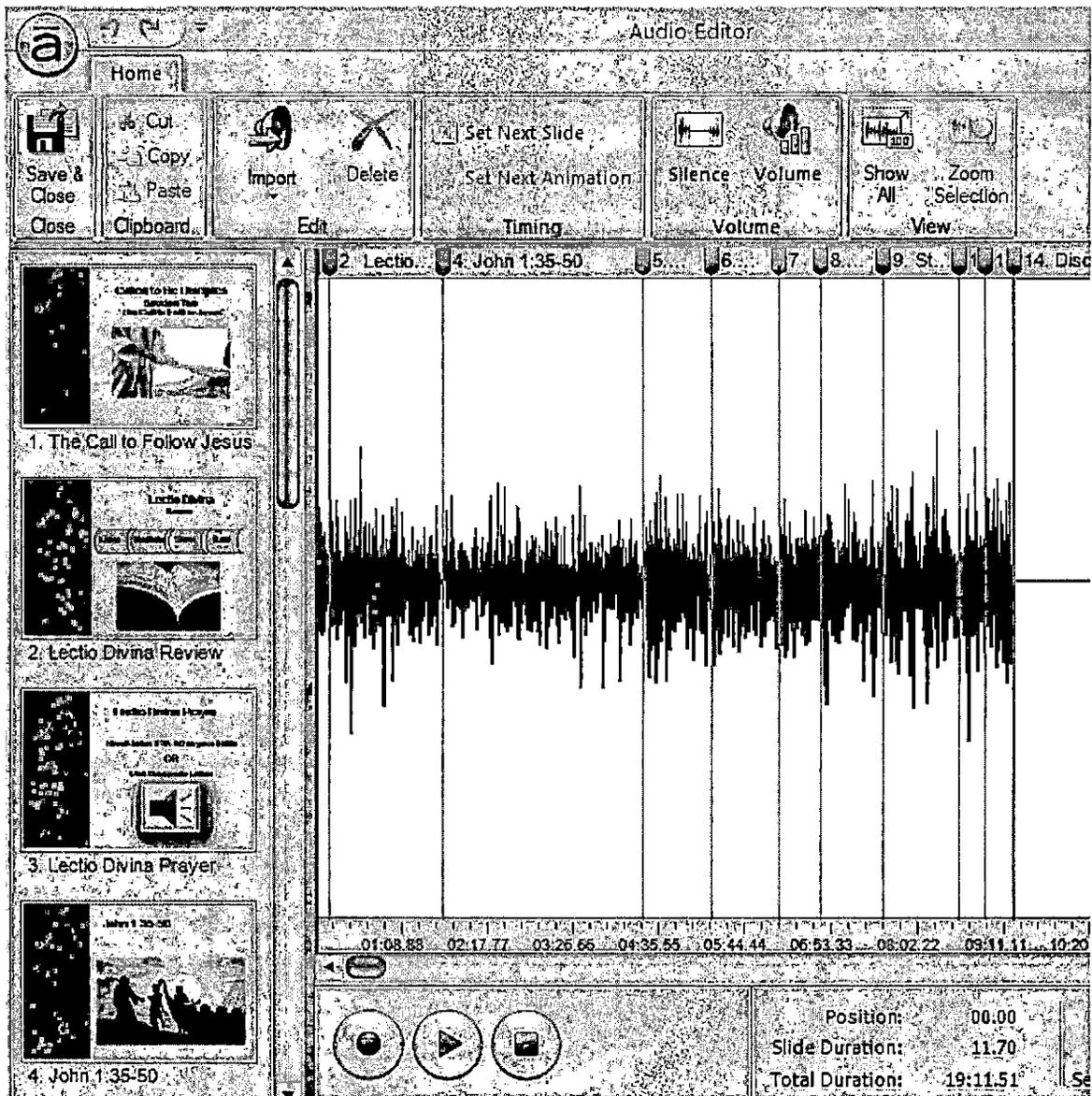
Figure 5. Screenshot Example of Articulate's Audio Editor

Next, simple tasks were completed first. For example,

a PDF version of the lecture was created from the

transcribed Word document by simply saving the Word

document as a PDF file. Both PDF and Word versions of the lecture were uploaded to Moodle. A digitized version of the official text for the course called *Stewardship: A Disciple's Response* was found online at the USCCB website and a link to the document was created.

A storyboard template titled *Text Storyboard 3* created by Foo Chi-Hian (Malamed, 2011) was utilized to rearrange and organize the content of the transcribed lecture from the PowerPoint to the storyboard for quick reference (See Appendix A). It should be noted that the completed storyboard was a valuable resource. Reference to this document was made many times during development of the HTML slide show version of the lecture in Articulate.

Next, after all the easier tasks were completed, the tasks that needed more attention were addressed. The PowerPoint file for the Session Two lecture was opened in Articulate and attention was turned to the aesthetic design of the slides. It was decided to produce a totally new design of the original PowerPoint (see Figure 6).
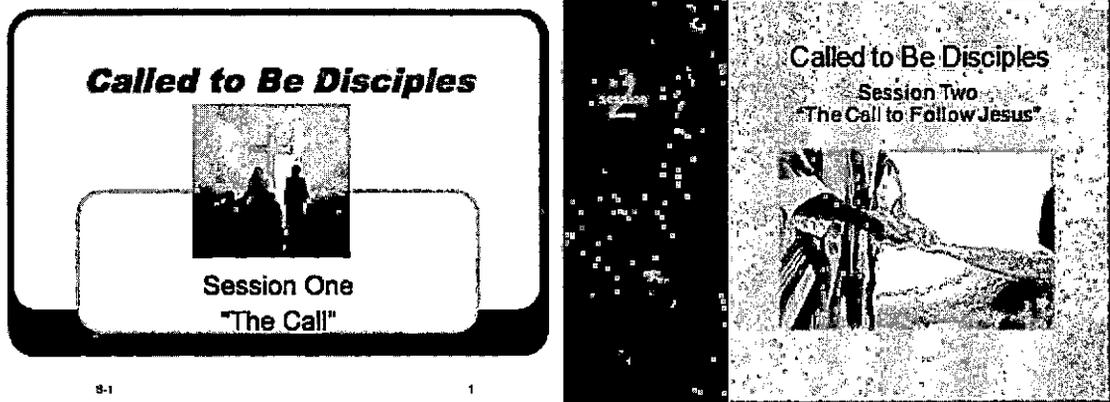
Figure 6. Screenshots of Original Versus New Design

Adobe Illustrator image-editing software was utilized

to create the feet prints. Most of the modifications from

the original slide show presentation were redesigned with

careful consideration of the multimedia principles

presented in Chapter 2. A number of alpha tests were

conducted throughout this slide show design process. This

alpha testing process was a very tedious process initially.

There simply was no simple way around having to preview

the slide show multiple times within Articulate, which

perhaps explains why Horton (2006) modified the ADDIE

Development and Implementation phases into simply the Build

phase. The alpha testing process did eventually become

easier, though. As soon as an acceptable version of the

HTML slide show was completed, it was immediately uploaded to Moodle for additional alpha testing.

Intentional Design of Instructor's Social Presence

The literature review revealed that an instructor's social presence could be intentionally designed initially into the course. Practical ways that initiated this presence was creating a syllabus that included information about the course, learner expectations, and contact information of the instructor. In addition, a course schedule, and individual web pages for each session of the schedule, was created.

To accomplish the creation of the individual web pages for each session, a design influenced by Brian Newberry was adopted. To save development time, and with permission from Newberry, the source code from Newberry's template (Newberry, 2011) was modified for the purposes of this project. The simplicity of Newberry's (2011) design, its emphasis on including a picture of the instructor with contact information, and its organized list of procedures for each session makes for an ideal orientation for the learner. What is more regarding the procedures, the three types of interactions and expected learning resources (with links provided) are revealed, as well as a recommended

process for engaging in the learning resources included and cleanly presented to the learner; all this in one simple page of orientation (see Figure 7).

Session #: Title of Session

IMAGE
HERE

Shephard: Name
Email: mail@example.com
Phone: (555) 555-5555

Goal: Write the goal of the session here.

Procedure

    Interaction

        Learner-Content:

        Learner-Instructor:

        Learner-Learner:

    Media and Links

        Lecture - The Call to Follow Jesus (HTML) (Word) (PDF)

        Reading - Stewardship: A Disciple's Response (PDF)

        Scripture Passages - Believer or Disciple (HTML)

        Quiz - Disciple or Believer? (HTML)

        Lectio Divina (Webpage)

    Process

      1. Engage the lecture *The Call to Follow Jesus.*

Figure 7. Screenshot of Newberry's Design Slightly Modified

Implementation

Once the learning resources for one entire session were completed and arranged within Moodle, personnel from the Diocese of San Bernardino were recruited via email to review the online learning management system and engage the resources. Participants were asked to simply click on each linked resource and test navigation, accessibility, and aesthetic design. A total of nine people from the Diocese of San Bernardino agreed to participate. The timeframe for implementation was restricted due to the deadlines for submitting this project. From the nine people who agreed to participate, a total of four of them filled out the survey (Appendix D) created for a simple evaluation. The evaluation was adapted from very practical formative and summative checklists designed for evaluating course design (AI Evaluation Handout 2010.doc, 2010).

Implementation of General Procedures

Since the timeframe for implementation was short due to deadlines for submitting this project, the implementation of general procedures did not occur. In principle, instructional designers could develop general procedures to train facilitators and/or learners to engage a particular product. For example, facilitators could be trained in how

best to facilitate discussion within the online learning
environment, social presence, method of delivery, and
testing procedures. In addition, learners could be trained
in using the software within Moodle (i.e. student
registration, posting comments in the discussion
forum/journal). Moreover, general procedures could include
information about the minimum technology requirements
and/or technology skills (i.e. basic typing skills) needed
to successfully engage the product (Culatta, 2010).

Evaluation

The survey evaluation was formative in nature, meaning
it was intended to gather simple satisfaction feedback
about the online learning environment and to contribute to
the improvement of the overall environment and/or learning
resources; mainly in three areas of design: instructional
design, visual design, and informational design. Ten five-
point likert questions (See Table 3) were created to
measure initial satisfaction in these three areas, and one
open-ended question was designed for the participants to
offer additional comments, suggestions, and/or
recommendations.

Table 3. Survey Questions and Responses

Question	P1	P2	P3	P4	Mean
	Participant Responses. 1=very dissatisfied, 5=very satisfied.				
1. Layout, design and appearance.	4	4	5	5	4.5
2. Easy to Navigate within the course.	4	5	5	5	4.75
3. Information easy to find.	3	4	5	4	4
4. Content well sequenced.	4	3	5	4	4
5. Learning materials easy to use.	4	5	5	5	4.75
6. Learning materials accessible.	3	5	5	5	4.5
7. Syllabus complete and detailed.	4	5	5	5	4.75
8. Use of graphics.	4		5	5	4.67
9. Use of color.	5	5	5	5	5
10. Instructions for learning activities.	4	5	5	5	4.75

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Three people scored a three of five satisfactory
rating once on the survey. One person scored a three
suggesting the information was not that easy to find;
Another scored a three suggesting the content was not that
well sequenced; and finally, one scored a three of five
suggesting the learning materials were not accessible.
There were no immediate changes made regarding this
feedback. However, some changes that were considered by
the author in relation to this feedback included the
creation of a "Before You Begin" page, or video tutorial,
that explains the layout of information within the online
learning environment, as well as the necessary software
plug-ins (i.e. Adobe Flash Player, Adobe Reader) to ensure
access to the learning resources used in the online course.

All the other items of the survey measuring
instructional, visual, and informational design were scored
4 or 5. One person of the four who completed the survey
offered additional feedback in the open-ended question.
This person wrote:

I loved it because it is simple!!! Depending on

who the audience is, if it be the participants, this

is just what they need. I am not kidding with this but

perhaps 'forum' is to fancy of a word for the

participants. It is not average vocabulary for about 70% of the participants. I know but it is just that way, from what I am a gathering (Mid-Terms).

The second thing I wanted to comment on is the Session 2: Discussion forum, Session 2: Journal, etc. I strongly do not believe that you need to include the Session 2 repeatedly because it already states it on the top Title section. That, I believe, is good enough.

It was great colors and great layout. Simple and comprehensible.

Good job! (Survey participant, personal communication, January 20, 2011)

This individual's recommendation about changing the term 'forum' is a good one. However, changing this term into another one within Moodle involves changing over an estimated 20-40 files. The idea was investigated; Moodle's coding uses the term in many files throughout. It would be easier to change just the titles of the forums to a different term, which would solve the observation made by this person. The other suggestion of removing the

redundancy of the repeated use of the term 'Session 2' is

an easy implement and revision. However, sometimes being

redundant in an online environment is a good thing (Horton,

2006).

Summary

Chapter Three documented the ADDIE systematic process

utilized for developing an online learning environment for

a theological educational program in the Diocese of San

Bernardino. In addition, development surrounded the

production of student-content interactions for the online

learning environment. The process for delivering online

the one complete session could easily serve as the model

for finishing the other nineteen sessions in English, as

well as the twenty sessions in the Spanish language.

CHAPTER FOUR

CONCLUSIONS AND RECOMMENDATIONS

Introduction

The purpose of the project was to redesign one of the

existing theological educational program's face-to-face

course sessions for delivery in an online learning

environment. In addition, this project sought to meet the

theological educational program's need to offer their

curriculum online. As a result, a number of conclusions

and recommendations were extracted.

Conclusions

The conclusions extracted from the project follows.

1.   Moodle is a free LMS in which anyone could

    implement to create their own online learning

    environment and offer courses online. However,

    the learning curve for Moodle was rather high.

    One should expect to spend a great deal of time

    familiarizing themselves with the administrative

    aspects of the LMS. Moodle does not offer live

    support. There were no technicians to call when

    a question arose, and finding an answer to a

question literally meant searching for it in the Moodle website, or post a question into the Moodle forum and wait for an answer. However, once familiarized, the features Moodle provides are well enough to satisfy the need of any institution looking to provide online courses to their learners.

2. Consultation and negotiation with the subject matter expert about the length of the lecture and its delivery online was an important process for this project. The lecture in the face-to-face session was designed to last two and a half hours. The face-to-face lecture combined the presentation with open group discussion, along with individual and group theological reflection questions sprinkled throughout the presentation. As for the online delivery of a lecture, Horton (2006) suggested keeping the lecture simple and at around ten minutes in length. This meant for the SME to work at rearranging the design of the lecture to include only the most salient points. Therefore, allowing enough time for the SME to work on writing this rearrangement was essential.

3. The ADDIE sequential process guided this project only for exposition of Chapter Three. In reality, Horton's (2006) adapted ADDIE process (combining Development and Implementation into the Build phase) reflected the actual process of developing most of the learning resources for this project. It was as Horton (2006) suggested, in that, "implementation does not lag development but goes on at the same time" (p. 45).

4. The design and development of the online learning environment and the learning resources for the one session was deemed successful. While the formative evaluation yielded positive feedback for the overall design of the online learning environment and its learning resources, an anecdotal observation made by the author yielded interesting results about the overall project. After sharing the completed session with the stakeholders of this project, the author discovered that the stakeholders immediately shared the link to the online course with other staff members for an informal review of the learning resources created and nestled in Moodle.

The author, upon visiting with the stakeholders

a day afterward, noticed a positive buzz

generated from staff members about this project

and the overall possibilities for online

learning. One staff member came up to the author

and commented how this project most likely would

cause a "big bang"-like reaction around the

Diocese of San Bernardino and how training and

formation is delivered.

5. While the design and development of an online

learning environment and the redesign of learning

resources can be deemed successful, gathering

data related to learner-learner interactions and

the social presence theory, unfortunately, was

not successful. Therefore, the issue of the

disembodied nature of online learning could not

be formally addressed.

Recommendations

The recommendations resulting from the project

follows.

1. While this project's overall evaluation was

formative in nature, and something to build upon,

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developing a more summative evaluation would

yield better feedback overall. To accomplish

this summative evaluation, ideally, one could

have a completed course ready in the online

learning environment, implement a beta test

version of the course to a sample group of adult

learners, and from this same group, gather the

necessary feedback (i.e. satisfaction with social

presence of others) regarding the completed

product before its actual implementation.

2. Stakeholders of the theological educational

program would benefit from opportunities for

professional development related to online

learning. For example, topics could include 1)

successfully facilitating social presence within

an online learning environment or 2) best

practices for the design of PowerPoint

presentations.

3. The redesign of a face-to-face curriculum should

not be considered a simple project. As a result,

instructional designers only benefit from having

some skills in project management. Project

management skills could involve dealing with

budgets, timelines, personnel, or the managing and tracking of projects (Richey, Morrison, & Foxon, 2007). According to Richey, Morrison, and Foxon (2007), instructional designers often face the dilemma of having to choose between spending time completing instructional design tasks or project management tasks. Therefore, developing skills in project management is highly recommended.

Future Direction

A future direction for this project should include the gathering of data related to social presence theory and theological reflection. Individual and group theological reflection is an important face-to-face activity in theological education. However, not enough data exists in relation to theological reflection and its implications for the online learning environment. While data collection related to student/instructor perceptions of social presence, or social interactivity, can be simulated using previous studies (e.g. Campbell & Ben-Zvi, 1998; Swan & Shih, 2005), data related to theological reflection in the online learning environment and the student/instructor

perceptions that surface from the change of environments should be gathered. In addition, data related to whether a richer theological discussion happens online due to more learners participating in online discussions, as suggested by Ascough (2002), could be collected.

Summary

In this chapter the author was able to identify conclusions, recommendations, and future directions from formative evaluations gathered throughout the lifecycle of this project. It is hoped that these conclusions about the project, the recommendations formulated, and the discussion of future directions will further the study and implementation of online learning within the field of theological education.

APPENDIX A

CD OF PROJECT

APPENDIX B

INSTITUTIONAL REVIEW BOARD

EXPEDITED REVIEW

Academic Affairs
Office of Academic Research • Institutional Review Board

January 12, 2011

Mr. Raul Lozada
c/o: Prof. Eun-Ok Baek
Department of Science, Math and Technology
California State University
5500 University Parkway
San Bernardino, California 92407

CSUSB
INSTITUTIONAL
REVIEW BOARD
Expedited Review
IRB# 10041
Status
APPROVED

Dear Mr. Lozada:

Your application to use human subjects, titled "Moodle as an Online Learning Solution for a Theological Educational Program" has been reviewed and approved by the Institutional Review Board (IRB). The attached informed consent document has been stamped and signed by the IRB chairperson. All subsequent copies used must be this officially approved version. A change in your informed consent (no matter how minor the change) requires resubmission of your protocol as amended. Your application is approved for one year from January 12, 2011 through January 13, 2012 One month prior to the approval end date you need to file for a renewal if you have not completed your research. See additional requirements (Items 1 – 4) of your approval below.

Your responsibilities as the researcher/investigator reporting to the IRB Committee include the following 4 requirements as mandated by the Code of Federal Regulations 45 CFR 46 listed below. Please note that the protocol change form and renewal form are located on the IRB website under the forms menu. Failure to notify the IRB of the above may result in disciplinary action. You are required to keep copies of the informed consent forms and data for at least three years.

1) Submit a protocol change form if any changes (no matter how minor) are made in your research prospectus/protocol for review and approval of the IRB before implemented in your research.
2) If any unanticipated/adverse events are experienced by subjects during your research,
3) To renew your protocol one month prior to the protocols end date,
4) When your project has ended by emailing the IRB Coordinator/Compliance Analyst.

The CSUSB IRB has not evaluated your proposal for scientific merit, except to weigh the risk to the human participants and the aspects of the proposal related to potential risk and benefit. This approval notice does not replace any departmental or additional approvals which may be required.

If you have any questions regarding the IRB decision, please contact Michael Gillespie, IRB Compliance Coordinator. Mr. Michael Gillespie can be reached by phone at (909) 537-7588, by fax at (909) 537-7028, or by email at mgillesp@csusb.edu. Please include your application approval identification number (listed at the top) in all correspondence.

Best of luck with your research.

Sincerely,

Sharon F Ward, Ph.D.

Sharon Ward, Ph.D., Chair
Institutional Review Board

SW/mg

cc:

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APPENDIX C

FOCUS GROUP QUESTIONS

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Focus Group Questions

1. What were the leading factors that influenced your need to implement an online component to your program?

2. What are some of the initial concerns that you may have in regard to implementing an online learning component to your program?

3. Describe the learners of your program.

4. Describe some of the tasks that learners in your program are expected to complete.

5. How much experience do the instructors of your program have with online learning?

6. How much experience do the learners of your program have with online learning?

7. How does your program currently use technology?

APPENDIX D

SURVEY QUESTIONS

Online Course Satisfaction Survey

How satisfied were you with each of the following aspects of this online course?
(1 = very dissatisfied, 5 = very satisfied)

Layout, design and appearance of course.

	1	2	3	4	5	
Very Dissatisfied	⊖	☺	☺	☺	☺	Very Satisfied

Easy to navigate within the course.

	1	2	3	4	5	
Very Dissatisfied	☺	☺	☺	☺	☺	Very Satisfied

Information easy to find.

	1	2	3	4	5	
Very Dissatisfied	☺	☺	☺	☺	☺	Very Satisfied

Content well sequenced.

	1	2	3	4	5	
Very Dissatisfied	☺	☺	☺	☺	☺	Very Satisfied

Learning materials easy to use.

	1	2	3	4	5	
Very Dissatisfied	☺	☺	☺	☺	☺	Very Satisfied

Learning materials accessible.

        1   2   3   4   5

Very Dissatisfied ☺ ☺ ☺ ☺ ☺ Very Satisfied

Syllabus complete and detailed.

        1   2   3   4   5

Very Dissatisfied ☺ ☺ ☺ ☺ ☺ Very Satisfied

Use of graphics.

        1   2   3   4   5

Very Dissatisfied ☺ ☺ ☺ ☺ ☺ Very Satisfied

Use of colors.

        1   2   3   4   5

Very Dissatisfied ☺ ☺ ☺ ☺ ☺ Very Satisfied

Instructions for learning activities.

        1   2   3   4   5

Very Dissatisfied ☺ ☺ ☺ ☺ ☺ Very Satisfied

Please use the space below to submit additional comments, suggestions, and/or recommendations to help ensure the delivery of a high-quality product.

(Submit)

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