COMMUNITY COLLEGE FIRST-YEAR BUSINESS STUDENT

ONLINE COURSE MOTIVATION

by

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B.S., Emporia State University, 1999

M.B.A., Emporia State University, 2001

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AN ABSTRACT OF A DISSERTATION

submitted in partial fulfillment of the requirements for the degree

DOCTOR OF PHILOSOPHY

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Abstract

The purpose of this case study was to explore the online learning environment through the experiences of the individual learner and to gain more insight into the elements of Business online courses, as framed by the Keller ARCS Model of Motivation. This study explored the following three Research Questions: 1. How do undergraduate first-year Business students perceive online course elements as being motivational? 2. How do the online courses that Business students perceive as being motivational use the Keller ARCS Motivational Model? 3 How do exemplary online Business faculty use the Keller ARCS Motivational Model in online instruction?

The population was students enrolled in first-year for-credit online classes taken during the Fall 2010 semester in a Midwestern community college. A sample of required Business online sections was purposively selected in order to investigate Business student motivation. The participants in this study were 18 first-year Business students enrolled in Business courses. Based on student interviews, the instructors of the three courses that were most often nominated by students as being most motivational were interviewed. Interviews of students and instructors were conducted at the end of the Fall 2010 semester.

Seven themes were identified for Research Question 1: 116 units for theme "Course Communication," 83 units for theme "Course Requirements," 71 units for theme "Grades," 60 units for theme "Course Organization," 50 units for the theme "Learning Online," 48 units or the theme "Course Element Availability," and 46 units for the theme "Track Course Progress."

For Research Question 2, the ARCS model categories were used as a framework for understanding and interpreting student motivation: "Attention," "Relevance," "Confidence," and "Satisfaction." The components of the Keller ARCS themes were then analyzed according to the

components that students perceived as being most motivational. The ARCS Themes found were: 31 units for theme "Satisfaction," 25 units for theme "Relevance," 24 units were found for theme "Confidence," and 20 units were found for theme "Attention." The significant theme findings were: The Satisfaction theme was found to include practice prior to graded activities. The Relevance theme was found to include the use of "choices" as a key motivational component to what was perceived as being relevant. The Confidence theme was found to include a progression in difficulty of activities and access to review and practice new material. The Attention theme was found to include variability of instruction and course elements.

To answer Research Question 3, faculty interviews focused specifically on the Keller ARCS Motivational Model and components. The ARCS themes found were: 36 units for theme "Confidence," 25 units for theme "Relevance," 24 units for theme "Satisfaction," and 22 units for theme "Attention." The significant findings from the themes were: The Confidence theme was found to include providing key information upfront to students. The design of the course must allow for student success and become progressively more difficult for students. Also, the time and effort required to complete activities should be provided to students. The Relevance theme was found to include the use of "choices" and to relate the course to the student's situation as key motivational components. The Satisfaction theme was found to include negative consequences that are handled within the course, and practice that offers immediate feedback. The Attention theme was found to include students asking students questions within the course.

Recommendations for further studies included a qualitative study to uncover how online Business students are motivated in their second and later years and a study to understand student motivation through various settings and technologies used in learning management system course elements.

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CHAPTER 1 - INTRODUCTION TO THE PROBLEM

Chapter Overview

This chapter presents an overview of the research problem in this study, beginning with the growth and significance of online learning at the collegial level, online course technologies, the theoretical framework used to analyze the study, and the research location. Lastly, this chapter ends with the purpose of the study, the research questions that were used to guide the research, the significance of the study, and limitations and delimitations of the study.

Growth of Online Learning in the United States

The latest survey available of online learning in higher education from The Sloan Consortium (Allan & Seaman, 2011), the eighth performed by Sloan-C in as many years, provided the results of a 2010 survey completed by more than 2,500 colleges and universities. Just as its predecessors found, the latest survey results indicated that online enrollment was still growing faster than the overall enrollment in higher education, with 1 in 3 students taking an online college course (Allan & Seaman, 2011).

Various states have had extremely high online course enrollment growth in the last few years. Florida had a 24 percent increase in online enrollment in the 2008-2009 school year, jumping to 124,000 students taking online classes (Center for Digital Education, 2009). Mississippi saw a large increase of online students, from 5,000 to 7,000 (40 percent increase) during the 2008-2009 school year (Center for Digital Education, 2009). The University of Massachusetts had an increase of 46 percent in online enrollment from the summer before (Dillon, 2008). The trend in the United States has been toward significant online growth, which

has far outpaced traditional face-to-face enrollment. Additionally, traditional on-campus students have become a growing part of the online population, as well (Allan & Seaman, 2011).

"Traditional" Student Online Course Enrollment

Traditional students taking face-to-face classes are becoming more likely to include some online courses. Allen & Seaman (2011) found that in the Fall 2010 semester more than 6.1 million students had taken at least one online class. This was a 17 percent increase from the year before (See Figure 1.1). The survey also found that 25 percent of students in higher education were taking at least one online course.

This trend reflects a broader trend developing among high school students, whose habits will likely continue in college. Richards (2010) found that some high schools saw growth of 15 percent to 20 percent of traditional high school students taking online classes in addition to face-to-face classes. As high school students become more familiar with the online class delivery, they continue to take online courses as they move into higher education (Allen & Seaman, 2010).

The Instructional Technology Council (2010) report stated that online students were a little younger (18-25), more traditional (52%) and more likely to be female (63%) than their counterparts taking only face-to-face courses. The study did not indicate that online growth would engulf established face-to-face education, but rather that both educational markets would exist side-by-side. This study referred to the changing modes of delivering education for all students that could include an online offering component. Additionally, educational institutions have been recruiting students who only want to take online courses for degree purposes.

Figure 1.1 Online Enrollment as a Percent of Total Enrollment

ONLINE ENROLLMENT AS A PERCENT OF TOTAL ENROLLMENT - FALL 2002 THROUGH FALL 2010

The data in this chart are from Going the Distance: Online Education in the United States, 2011, by I. E. Allen and J. Seaman, 2010, Babson Park, MA: Babson Survey Research Group and from Sloan-C 2011.

Online Course and Program Rigor

Although the number of institutions that offer online courses has been increasing rapidly, critics of the online mode of delivery suggest that online courses do not maintain the same level of rigor as traditional class offerings (Pina, 2010). The Sloan Consortium reports of 2011 and 2010 found that more than two-thirds of chief academic officers believed that their faculty were not convinced of the value and legitimacy of online education. The Sloan Consortium reports have indicated that this proportion has remained constant over the last seven years. Yet, a study by Wyatt (2005) found the opposite perception among students, who believed that online courses had more rigor. According to Glenn (2008), one aspect that may change this debate is a shift in these negative perceptions as more "elite" institutions offer classes online. For example,

two highly regarded institutions, Johns Hopkins in Maryland and Stanford University in California, now offer online courses (Glenn, 2008 p. 11).

While online education continues to grow and develop, Pina (2010) identified three responsibilities that online educators should consider to show that their online classes have the same rigor as those of face-to-face offerings: (1) invite critics in to examine curricula (2) review academic standards in both online and traditional education and (3) test online students. According to the *Managing Online Education* survey report (2009), there was limited evidence about how campuses managed examinations for their online programs. Kenneth C. Green, founding director of The Campus Computing Project (2009) and director of the study, found that institutions need to better understand, manage, and evaluate online programs.

> The enrollment data, coupled with the new information about organizational transitions in online education programs, document the official 'arrival' of online education….These data confirm that campuses confront new operational and managerial challenges as online education moves from the periphery to become a much larger and more significant component of the instructional portfolio for many institutions. (p. 1)

The online mode of delivery requires administrators and faculty to restructure the educational organization and ensure academic standards are maintained for both face-to-face and online offerings. These studies illustrate the debate over academic standards between online education and traditional education. There will not likely be a quick end to this debate. However, as elite colleges offering online courses, the perception that online education is lacking rigor may begin to change. This scrutiny of online courses is part of many changes in higher education.

Online Degree and Program Growth at Two and Four Year Institutions

Most of the available information about online degree and programs included data for two and four-year colleges studied together. Parsad & Lewis (2008) reported that both 2-year and 4-year institutions had more fully developed online programs. The 2010 report by the Instructional Technology Council found that 75 percent of the survey respondents offered at least one online degree, but the study defined an online degree differently than previous studies—"at least 70 percent of coursework need[ed] to complete the degree is available online." Since previous studies defined an online degree as 100 percent of the coursework online, it is difficult to compare accurately the results of this study to the results of other studies. Further, the American Association of Community Colleges reported that 92 percent of the institutions offered at least one "internet-based" course. This survey did not define the term "internet-based," which could include such offerings as blended or web-supported courses, as well as fully online offerings.

While these studies indicated that online programs were growing, they failed to distinguish between programs that were completely online from those that required a face-to-face component. As new online programs are created, the availability of classes that are fully online will need to be defined in these studies for an accurate comparison of those offerings. Further, while these studies did not identify the specific reasons that some classes remained unavailable online, other research by Pina (2008) and Glenn (2008) suggested that online classes may not yet command the same respect as face-to-face classes, possibly accounting for the inclusion of face-to-face components in predominantly online programs.

Community College Online Enrollment Growth

Community colleges have a major role in the enrollment increases of online education. The Sloan-C study (2010) reported that "Associate's" institutions, also referred to as community colleges, accounted for approximately 37 percent of the total higher education student population. More than half of the total online student population was enrolled in associate's institutions, since between the years 2000 and 2006 community colleges online enrollment grew at a consistent rate of 9 percent (Provasnik & Planty, 2008). Further, Moltz (2011) reported that community colleges continued to report a 9 percent increase in online enrollment from 2009 to 2010 and the evidence suggested it will not change any time soon.

In 2010, the latest survey results provided by the Instructional Technology Council outlined statistical data on the growth and development of community colleges online courses. The survey was emailed to more than 345 institutions (usually the director of the distance-learning program) and more than 1,200 members of the American Association of Community Colleges. The survey reported all percentages, excluding "no answer" responses, so the data reported did not equal 100 percent, and the response rate was very low, about 12 percent. The survey had been given for the past seven years, so 70 percent of the current survey respondents had also been past survey completers. The institutions participating in this survey identified themselves as Associate's colleges or "Associate's Dominate" Colleges (95%) - those that predominantly offered Associate degrees.

Similarly, previous studies of community colleges reported increases in online enrollment for the past few years. Online education enrollment from Fall 2009 to Fall 2010 increased by 9 percent. Sloan-C (2010) reported an increase of 21 percent from Fall 2009 to Fall 2010. "The twenty-one percent growth rate for online enrollments far exceeds the less than two percent

growth of the overall higher education student population. Nearly thirty percent of higher education students now take at least one course online. (Allen & Seaman, 2010)" These enrollment increases were further supported by the report by Managing Online Education, which found that between 2006 and 2009, 48 percent of the respondents reported that online enrollment increased by at least 15 percent. By the 2008-2009 academic year, 95 percent of the respondents reported at least a 15 percent online enrollment increase. Both studies indicated that online education enrollment was increasing faster than overall enrollment in higher education.

The 2010 Instructional Technology Council survey found that 67 percent of Associate colleges reported that the demand for online classes was exceeding current offerings. In addition, this survey pointed out that online enrollment was increasing faster than traditional enrollment. During times of tightened budgets, online enrollment was one area in which colleges continued to grow and gain new income. While there is enrollment data for both four year and two year educational institutions there is limited data on specific online programs enrollment. Further, there is little data on community college Business program growth or statistics. However, the Sloan-C study (2010) reported that online growth has not been level across all programs. Business program offerings online have made significant increases, with 33 percent of Business programs being offered in the online format.

Online Course Technology

Technology within the online learning environment brings with it features that are designed to promote student motivation to learn. Technologies employed in online courses include learning management systems, course and book websites, social media, and web 2.0 technologies (Kearns & Frey, 2010; Lamb & Groom, 2010; Khine, 2006). According to Metz

(2010) and Johnson, Levine, Smith, & Stone, authors of the EDUCAUSE Learning

Initiative/New Media Consortium Horizon Report (2010), students must develop technical skills

for the workplace. "Digital media literacy continues its rise in importance as a key skill in every

discipline and profession" (p. 2). The online classroom may help prepare students for the *cloud*

computing of the near future, as well. Furthermore, new opportunities for online learning will

develop as newer technologies are implemented in the online learning environment, such as

learning management systems, mobile computing and open content (Hodge & Collins, 2010).

Learning Management Systems (LMS)

Learning Management Systems consist of "a software application that automates the

administration, tracking, and report of training events" (Ellis, 2009). "In a higher educational

context, LMSs are being used to support distance learning courses as well as face-to-face classes,

and are considered by institutions as important tools for supporting instruction" (Petherbridge,

2007). The first LMSs in higher education began in the mid to late 1990s for supporting

instruction online (Gibbons, 2005). According to Olsen (2001), the early LMSs were to provide

access and support various elements (or features) of online learning and be a place to distribute

assignments, quizzes, communication options, such as discussions, a way for students to check

grades, and a class roster. In 2004, Thurlow, Lengel, & Tomic, (p. 31) further defined some of

the communication tools used in LMSs as "technologies within technologies, which facilitate

interaction." As technologies developed, many of those technologies were included in LMSs, to

create the online "classroom." Furthermore, Cole & Foster (2008) indicated that a LMS should

also allow for uploading and sharing materials, chat features, and reviewing of assignments.

EduTools (2010) identified 38 widely-used Learning Management Systems. At the time of this research, Moodle, Blackboard, Sakai, eCollege, Desire2learn, and ANGEL were the most widely used. In 2010, the Instructional Technology Council published a report on the use of technology in community colleges. The report found 51 percent of the community college respondents used Blackboard systems, which owned WebCT and ANGEL, with the breakdown being Blackboard 27.4 percent, WebCT 9.7 percent, and ANGEL 13.7 percent. Furthermore, the Instructional Technology Council (2010) found that many of the respondents (33%) were considering changing to a different LMS within the next few years, so volatility is also a constant part of the LMS landscape.

ANGEL Learning Management System

The term "Learning Management System" (LMS) was used throughout this study, yet the technology has many other names including: Course Management System (CMS), Virtual Learning Environment (VLE), Course Management Software Packages (CMSP), e-Courseware, and e-Learning courseware (Hodges, Collins, & Giordano, 2009; Gibbons, 2005; Ellis, 2009). This study used the LMS definition given by Ellis (2009), which is "a software application that automates the administration, tracking, and report of training events." Furthermore, Ellis (2009) indicated that the LMS should be able to do the following:

- Centralize and automate administration

- Use self-service and self-guided services

- Assemble and deliver learning content rapidly

- Consolidate training initiatives on a scalable web-based platform

- Support portability and standards

- Personalize content and enable knowledge reuse

The LMS used in this study was the ANGEL LMS, which was used as the LMS for all online classes at the research location. ANGEL LMS was purchased by Blackboard on May 6, 2010 (Blackboard, 2010). ANGEL LMS had many online elements a faculty member could choose from in order to develop and teach an online course. These elements included content creation and management tools (e.g. HTML editor and file management), both synchronous and asynchronous collaboration tools (discussion forum, email, group and professor/student live video and audio chat and whiteboards), assessment tools (assignment submission, testing and online gradebook), and student management tools (student and professor profile and tracking information).

Table 1.1 ANGEL Course Elements

Course Mail	Activity at a Glance
Survey	Assessment
Courses	Blog
Page	Course Announcements
Course Elements	Discussion Forum
Link	Dropbox
Folder (Module)	File
Calendar Tab	Game
Course Tab (homepage)	Grades (Report)
Navigation Tab	Grades (Summary)
Lessons Tab	Institutional Resources
Communicate Tab	Live Chat
Report Tab	Syllabus
Resources Tab	Wiki

Adapted from ANGEL 7.3 QuickStart Guide (2007)

The Community College and Online Learning Opportunities

Community colleges not only have a more diverse population than four-year institutions, according to a report funded by the American Council on Higher Education (Ryu, 2010), they have also invested more in technology to become competitive with four-year institutions.

It's no secret that the U.S. economic downturn has resulted in droves of professionals, job seekers, and high school graduates heading back to school to develop new skills, but the

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fact of the matter is that today, fewer of these students can afford a conventional four-year college education. (Ramaswani, 2009, para. 2)

The response to these conditions has been steady growth in both community college enrollment and distance learning offerings. The commitment of community colleges to distance learning was confirmed by a May 2008 study conducted by the technology solutions CDW, which reported that, "94 percent of community colleges offered distance learning, compared to 74 percent of four-year institutions" (Ramaswani, 2009, para. 8). As community colleges work to integrate and educate these new students it is clear there is a need to better serve students toward program and degree completion as indicated by a recent study funded by the American Council on Higher Education (Ryu, 2010). This study found that college graduation rates had not increased and today's young adults are no better educated than the baby boom generation (Ryu, 2010). Community colleges, with less funding than four-year institutions and greater diversity, are under increasing pressure to design programs and courses that motivate students to enter and complete their academic programs, and an increasing number of these programs are online (Ryu, 2010).

Theoretical Framework – Keller ARCS Model of Motivation

In the late 1970's, John Keller started work on the concept of learner motivation. Keller later developed the Keller ARCS model, which was one of the first motivational design models. The goal of the ARCS model was to make the learning environment attractive to learners, relevant to their interests or goals, and lead to greater student confidence, thereby providing greater learner satisfaction. The Keller ARCS model of motivation was conceived of having four basic strategies that were believed to encourage student motivation—Attention, Relevance,

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Confidence, and Satisfaction (Smith & Ragan, 1999) (see Figure 1.2). The ARCS Motivational model has multiple components, psychological constructs, and strategies that can be identified and used in the instructional design process, as well as identified and studied in online courses.

Figure 1.2 Keller ARCS Motivational Model

The Keller ARCS's model also requires a systematic approach on the design of instruction to meet student needs—in this case the need for motivation, since all instructional design models use a systematic approach to designing instruction to ensure the instructional experience is effective (Cheng & Yeh, 2009; Smith & Ragan, 1999; Tharp, Gould, & Potter, 2009). While instructional design has been applied to online education for many years, attention to motivational elements of instructional design in online education has had limited application (Margueratt, 2007).

The Keller ARCS's model applies to the entire course design and specifically to the factors affecting learner motivation (Attention, Relevance, Confidence, and Satisfaction). While Keller's initial four categories should be incorporated within any good instructional design approach, this model is most often used in online course development (Tharp, Gould, & Potter, 2009). In order to accomplish the course instructional objectives, the online instructor must

attempt to reach the student's values and goals through the design of course learning goals, teaching and learning activities and feedback and assessment, thereby increasing motivation. Integration of the Keller motivational model into the course should enhance the effectiveness of the three elements of instructional design.

Figure 1.3 Basic Instructional Design Elements

Figure adapted from Fink's Course Design Model - Creating Significant Learning Experiences: An Integrated Approach to Designing College Courses, p. 62)

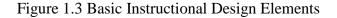The table, below, identifies the four motivation factors and subcomponents of motivation within each one, as well as the instructional strategies to apply. This table also includes the ARCS psychological constructs that Keller identified recently (2006).

Table 1.2 Keller ARCS Components of Motivation and Motivational Strategies

ARCS Elements	Components	Psychological Constructs	Motivational Strategies
Attention – Get the learners attention and then guide and maintain it though the instruction. Use "surprise" and "curiosity" in the instruction to engage the learner.	1. Variability 2. Humor 3. Concreteness 4. Cognitive Conflict 5. Inquiry 6. Participation	A1 Perceptual Arousal A2 Inquiry Arousal A3 Variability	1. A change in instruction, such as short video clips, discussions, or team projects. 2. Use humor as a strategy to introduce the material, or to break-up instruction and refocus student attention. 3. Link from the topic to a real-world example. 4. Debate and student discovery of the topic. 5. Ask questions or problems for students to analyze and solve. 6. Allow students to be actively involved through simulations, games, labs, teamwork/groups, etc.
Relevance – Show the learners the benefits to them and how the instruction is relevant to their personal situation and future goals	1. Experience 2. Present Worth 3. Future 4. Need Matching 5. Modeling 6. Choice	R1 Goal Orientation R2 Motive Matching R3 Familiarity	1. Show how prior knowledge will assist in comprehending new material. 2. Set up scenarios that show how the students' current situation may be changed by learning new material. 3. Make course materials relevant to students' future goals. Help students make the link between the material and future goals. 4. Organize instruction so that learners may demonstrate personal need factors such as taking risks, achievement, etc. 5. Model instructional activities, such as guest speakers, videos, tutoring, etc. 6. Provide activities which allow students choice.
Confidence – Develop learner confidence and help student to understand how to be successful in the class. Learners must feel that the time and effort will be worthwhile.	1. Learning Requirements 2. Difficulty 3. Expectations 4. Attributions 5. Self-Confidence	C1 Learning Requirements C2 Success Opportunities C3 Personal Control	1. Set clear learner objectives and prerequisites for each instructional activity. Provide examples and rubrics 2. Organize learning for success along the way. Start with activities that build confidence and then make activities progressively more difficult as students progress. 3. Help students develop realistic expectations about the amount of time and effort required to be successful. 4. Show how previous work correlates to knowledge to be gained. Share previous students' work and their achievements. 5. Provide feedback and opportunities to share success. 6. Allow opportunities to practice new knowledge. Students must feel successful before applying it to settings beyond class.
Satisfaction Learners must perceive some type of satisfaction from the experience. A passing grade, praise or positive feedback, will spur interest in immediate use of knowledge	1. Natural Consequences 2. Unexpected Rewards 3. Positive Outcomes 4. Avoiding Negative Influences 5. Scheduling Reinforcements	S1 Intrinsic Reinforcement S2 Extrinsic Rewards S3 Equity	1. Instruction must allow content use in natural setting. Instruction may include simulations, projects and other real-life activities. 2. Success should be rewarded. Offset tasks with anticipated rewards, as well as unforeseen rewards. Do not over simplify success or reward too often. Reward should match task difficulty. 3. Provide learners with intrinsic and extrinsic rewards, such as praise, or positive feedback for task. Feedback must be within a reasonable time of task completion. 4. Threats or negative consequences beyond appropriate levels should be avoided, as well as public evaluations. 5. Provide opportunities for practice. Organize reinforcements with more opportunities when material is introduced and less as material is learned.

Keller ARCS, The Community College, and Online Learning

While Keller ARCS has been studied a great deal in various setting, studies could not be located on those done in the context of online learning in the community college. A search by the researcher using ProQuest found a large number (241) of recent dissertations using the keywords "student motivation," yet only 113 dissertations focused on the key words "online," "student," and "motivation." Of these studies, one had limited application. "The Effects of ARCS-Based Confidence Strategies on Learner Confidence and Performance in Distance Education" (Huett, 2006).

Keller ARCS has been studied in higher education at the university level (Huett, 2006). Huett conducted an experimental study in a university on the effects of ARCS-based confidence strategies on learner confidence and performance in distance education. The study administered two quantitative surveys that were used to measure motivational confidence and a posttest to measure performance. The initial sample of 81 undergraduate online students at a university were selected and divided into two groups—41 students in the treatment group and 40 students in the control group. The study examined students' motivation compared to a posttest. The study used SAM 2003, which was produced by Microsoft in conjunction with Cengage learning as a modular approach to Assessment, Training, and Project-based grading. This web-based software used application software (Office), operating systems (Windows XP, Vista or Windows 7) and browser (Internet Explorer). Those software applications were used to provide additional feedback and support features. SAM 2003 was used for both the treatment group and the control group. However, only the treatment group received SAM 2003 feedback and support features. The study found that the treatment group outperformed the control group on the posttest. The results from the study showed, with a preset alpha of .05, statistically greater gains

in the treatment group in learner confidence. The study further suggested that improving learner

motivation by using external conditions, such as individualized feedback (as applied by SAM

2003) did enhance confidence. The study also found that new technologies could be

motivational for students.

Due to the large number and diversity of students taking online courses in community

colleges, pressure has been building from accrediting agencies to provide data on community

college motivation and program/degree completion. However, there has been a dearth of studies

on motivation at the community college level to provide guidance. The Higher Learning

Commission has responded by asking community colleges to develop action projects to develop

data sets for these purposes (Academic Quality Improvement Program, 2010).

Higher Learning Commission Accreditation Academic Quality Improvement Program (AQIP)

Each community college or school accredited by the Higher Learning Commission must

maintain accredited status by choosing one of the following accreditation processes: Program to

Evaluate and Advance Quality (PEAQ) or the Academic Quality Improvement Program (AQIP).

The key focus of AQIP's quality principles was to align the ongoing activities of institutions to

make continuous improvements to key institutional processes. AQIP has nine critical process

categories that are essential for an institution to be effective. See Table 1.2, below, for the nine

categories. From this list of categories, each institution must meet the requirements of 5 of the

categories to meet the requirements.

Table 1.3 Nine AQIP Categories

Category 1. Helping Students Learn
Category 2. Accomplishing Other Distinctive Objectives
Category 3. Understanding Students' And Other Stakeholders' Needs
Category 4. Valuing People
Category 5. Leading And Communicating
Category 6. Supporting Institutional Operations
Category 7. Measuring Effectiveness
Category 8. Planning Continuous Improvement
Category 9. Building Collaborative Relationships

Academic Quality Improvement Program (AQIP), 2010.

The research location was an accredited community college and the Higher Learning Commission, a member of the North Central Association Accreditation of Colleges and Schools, accredited the Research location. The research location has used the AQIP method for maintaining accreditation status for several years. In addition, the research location was required to develop a Systems Portfolio every four years. The System Portfolio described the processes and improvements made within each of the nine AQIP categories. Each AQIP institution is also required to develop AQIP Action Projects, which were projects that each institution developed during the three-year period before the larger Systems Portfolio was due. Action Projects were "goals" that an institution wanted to complete within six weeks to two years. These Action Projects were designed to help institutions continuously improve, and institutions must provide progress at least annually. Furthermore, to promote continuous improvement, when one Action Project ended another one must begin.

Research Location AQIP Student Success Action Project

At the research location, one of the 2011-2013 Action Projects proposed was titled, "Promote student retention and success," which was based on Category 1, Helping Students Learn.

It examines…processes and systems related to learning objectives, mission-driven student learning and development… academic programs and courses…key issues such as technology and diversity, program and course delivery, faculty and staff roles, teaching and learning effectiveness…. (Research location Accreditation, AQIP, 2010, para 2)

Furthermore, the critical strengths were identified as:

1C3a S The college provides students access to more flexible learning and teaching methods by offering 110 courses either online, through ITV or through telecourses. Other strategies include online instructional design staff, WebCT for course delivery, technology-enhanced classrooms, and 596 student computer workstations. (Research location Accreditation, AQIP, 2010, para 8)

Because of its depth, this project was scheduled as a three-year project. The first year was devoted to data gathering and analysis. The second year focused on the design of programs/services based on best practices to lead to improved student retention and success. Those processes and characteristics that lead to success or failure would be communicated to the community college stakeholders involved. In the third year, new program/services would be implemented and then monitored through year six. A Success/Retention Taskforce was created to begin the first stage of the Action Project. "Student motivation" was one of the characteristics of success to be studied.

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Statement of the Problem

Researchers continue to struggle with what motivates students in online courses (Keller, 2008; Shroff, Vogel & Coombes, 2008). The Keller ARCS motivational model provides a framework for describing and evaluating motivational elements in online course design. To date, no research has been conducted using the Keller ARCS model to study community college online courses, nor specifically on Business student online course motivation. This research provided information on motivational elements in first-year student online Business courses at the research location. Additionally, findings from this study will also be helpful to the research location Higher Learning Commission AQIP Action Project for continuing accreditation on motivational aspects of student retention and completion, as well as to the research location Business Department.

Purpose of the Study

This study utilized the Keller ARCS Model of Motivation framework to investigate first-year Business students' perception of motivational course elements in online courses in a Midwest community college. Students nominated motivational Business faculty, who were then interviewed about their use of Keller ARCS and other motivational course elements.

Research Questions

The study explored the following research questions:

1. How do undergraduate first-year Business students perceive online course elements as being motivational?

2. How do the online courses that Business students perceive as being motivational use the Keller ARCS Motivational Model?

3. How do exemplary online Business faculty use the Keller ARCS Motivational Model in online instruction?

Significance of the Study

Online education continues to grow. It has become a more common mode of delivering education to community college students, yet there is a lack of research on community college online student motivation and on motivational elements of online courses. While Keller ARCS has been studied in various online and face-to-face contexts in higher education at the university level and in K-12, it has yet to be studied in online courses in the community college environment. No research could be found on the Keller ARCS model of motivation at the community college level. This study focused on online student motivation at a community college using the Keller ARCS Motivation Model as the theoretical framework. The research findings contributed to the research of online student motivation, and added to the knowledge base regarding online student motivation at a community college.

This study expands information on student motivation in online classes in several ways. First, the results of the study were shared with the chair of the business department at the research location so that improvements could be implemented to support the institution's AQIP projects in support of accreditation efforts. The findings of this study helps instructors better understand and improve student motivation, which was a component of both student retention and success in online courses. The results have the potential to directly influence community college decision makers in developing online courses and programs.

Limitations of the Study

Limitations for this study included the following:

1. Because two Business classes were selected from each Business program at the research location, the researcher cannot be certain that the selected classes were representative of the population.

2. There was the potential for researcher bias in the interpretation of findings, since the researcher had taken online courses, taught online courses, and may have taught (or may teach in the future) some of the participants of the study.

3. The participants may have had preconceived ideas of the "right" or "socially desirable" answers that the researcher may be looking for, rather than providing honest answers, since the researcher is one of the Business faculty at the research location.

4. Students may not accurately report motivational features of online courses because they may not possess adequate knowledge of the various online course elements, or have a good understanding of what actually motivates them.

5. Because of the design of this case study and that the student and faculty interviews only took place near the end, and after the course had ended, the interviews were likely a reflection of the remember experiences and motivation of the course.

Delimitations of the Study

1. This study examined students at a single Midwest community college in a mid-size city. For this reason, the research findings had limited transferability to other institutions in different settings.

2. Student learning styles analysis was beyond the scope of this research study.

3. This community college required specific course elements: Gradebook, Course Mail, Institutional Resources, Syllabus, and the Calendar. This did not mean that the course elements were used in the course, but simply that the elements were always available for students to use. Because of these requirements, certain other features were either unavailable or were not part of ANGEL LMS, the particular learning management system used at the research institution.

4. The number of print screens (totaling 648 pages) from courses nominated by the students were too many to be included in the study. Moreover, the print screens had little more than the "shell" of each course on them.

Chapter Summary

This chapter has illustrated the importance of the study and provided an overview. The growth of online learning is increasing at rates higher than the current growth of traditional classes. These enrollment increases in online education and the lack of research on online student motivation are the driving forces of this study. This study used the theoretical framework of Keller ARCS Motivational Model as it applies to online student motivation.

The sections that described the research location accreditation and action projects showed the relevance of the problem. This study would create new knowledge on the topic of student motivation with respect to motivational course elements. The research location has one Action Project for the 2011-2013 years that focuses on student retention and success, which the results from this research study will be used. This chapter also identified the specific research questions, purpose, significance, limitations and delimitations of the study.

Definition of Terms

AQIP – Academic Quality Improvement Program is an accreditation process allowed by the Higher Learning Commission to maintain accredited status.

Motivation – This study used Keller's definition of "Motivation" which is defined as "the magnitude and direction of behavior. In other words, it refers to the choices people make to what experiences they will approach or avoid, and the degree of effort they will exert in that respect" (Keller, 1983, p.389).

Learning Management System (LMS) – were to provide access and support various elements (or features) of online learning and be a place to distribute assignments, quizzes, communication options such as discussions, a way for student to check grades, and a class roster (Olsen, 2001).

CHAPTER 2 - REVIEW OF THE LITERATURE

Introduction

This case study explored the online learning environment through the experiences of the individual learner with respect to gaining more insight into the elements of Business online courses. This chapter presents the in-depth literature review of motivation related to online learning, factors of online students, and the theoretical framework that was used—the Keller ARCS Motivational Model. This study explored the following research questions:

1. How do undergraduate first-year Business students perceive online course elements as being motivational?

2. How do the online courses that Business students perceive as being motivational use the Keller ARCS Motivational Model?

3. How do exemplary online Business faculty use the Keller ARCS Motivational Model in online instruction?

Motivation and Online Learning

"There are three things to remember about education. The first one is motivation. The second one is motivation. The third one is motivation" (Terry Bell, Commissioner of Education, quoted in Lumsden, 1999, p. 24). While various motivational frameworks have been developed for teachers to use to increase student motivation in the classroom (Keller, 1983; Wlodkowski, 1985; Malone & Lepper, 1987), there are few concrete answers that describe how to keep students motivated, engaged, and interested. There is also little research connecting motivation (and motivational models) to undergraduate online students. Currently, research involving

student motivation in the online environment utilizes traditional classroom motivation models (Hodges, 2004).

Motivation is a key factor to successful student learning. Several researchers have suggested that the importance of student motivation and learning were, "so interrelated that one can not fully understand learning without considering motivation" (Mulenga & Liang, 2008). Furthermore, ChanLin (2009) supported this finding by suggesting that motivation had a positive effect on learning and was a key factor in the student learning process. Ying, et al., (2008) stated, "learning motivation and learning strategies are clearly associated with positive and predictable effects on learning results" (p. 17). Education is changing as online learning continues to expand, and our ability to understand student motivation will play an integral role in effective teaching and learning.

Factors Affecting Student Attitudes Toward Online Learning

Studies of the effect of student attitudes toward online learning have developed around several common themes. These include the effects of the "digital learner" (Johnson, Levine, Smith & Stone, 2010), online student responsibility in learning the material, and the change in student online course perceptions as more online classes are taken. Within these themes are several motivationally-related factors that will be examined, including the digital ease of younger students, the higher degree of responsibility that learners must take in online learning, the role of previous online experience, and the need for flexibility in pursuing online courses.

Digital Ease

Online classes may be better suited for those students who are more adept computer users. The "Net Generation" (those born between the early 1990s and late 2000), also called

"digital learners," are entering higher education. These digital learners have grown up in a world with technology and expect it to be used in their education (Nora & Snyder, 2008-2009; Brown, 2002; Johnson, Levine, Smith & Stone, 2010). These students may require a redesign and redevelopment of traditional education, perhaps creating an educational system in which technology is ever-present. Online education is a teaching mode in which using a technology-enriched environment is increasingly important. Online education may be one way to provide the level of technology integration that the digital learners desire and need for future work productivity and competitiveness (Wagner, 2008).

Responsibility

A study by Watters & Robertson (2009) analyzed student perspectives from three different online accounting class levels: introductory level, upper-division undergraduate level, and graduate level. The researchers compared the students' perspectives of an online class and a traditional class (Watters & Robertson, 2009). The study by Watters & Robertson (2009) indicated that about 75 percent of the students in the undergraduate classes found the online courses were more effective than the traditional classes. Thirty-seven percent of the introductory online accounting students reported that they felt more responsibility for their learning compared to traditional classes, yet as the class difficulty increased this number dropped, from 37 percent to 27 percent to 17 percent (Watters & Robertson, 2009). The students did not indicate the reasons for the drop in their responsibility, yet this finding has been reported in other studies (Thomas, 2009; Knowles & Kerkman, 2007).

As students view an online program as effective and beneficial to their future, they feel more responsibility for their success in their online classes than in their traditional classes

(Aberasturi & Kongrith, 2006; Doorn, Janssen, & O'Brien, 2010; Tanner, Noser, & Totaro, 2009; Begiri, Chase, & Bishka, 2010). Regardless of the possible reasons that students felt more responsible in the introductory online accounting class, it is a significant finding, because of its relevance to introductory classes.

In three studies, students with self-reported GPA's of 3.0 and above rated online learning more effective than those students with self-reported grades of 2.5 or lower (Watters & Robertson, 2009; Doorn, Janssen, & O'Brien, 2010). Eighty-four percent of students in undergraduate classes found that prerecorded lectures were more effective than the traditional classroom lectures (Watters & Robertson, 2009). Students who are overall more successful, as indicated by their GPA, are better suited for online learning with its emphasis on student responsibility. The ability of a motivated student to re-listen to lectures is just one example of the link between motivation and success.

Online Experience

Several studies found links between online learning experience and student attitudes toward online learning. A study by Begiri, Chase, & Bishka (2010) found that students who were more familiar with the course background, were more satisfied with an online offering. Other studies have confirmed that when students understood the background of the course they viewed the online learning as more favorable than students without prior knowledge (Tanner, Noser, & Totaro, 2009; Begiri, Chase, & Bishka, 2010). Rodriguez, Ooms, & Montanez (2008), found that when students did not have previous online learning experience the comfort levels were directly related to the student's motivation to learning technical skills. The more online

courses a student completed the more satisfied the student was with that mode of delivery (Begiri, Chase, & Bishka, 2010; Rodriguez, Ooms, & Montanez, 2008).

Flexibility

The students of the Watters & Robertson (2009) study reported two advantages of online delivery over traditional delivery: flexibility and effectiveness. The study by Serhan (2010) reported that during analyses of online student perspectives three advantages emerged: convenience, flexible schedules (time and location), and resources and pace of the class. Two studies found that students found the instant grading and feedback of online quizzes/exams beneficial to their learning (Buzzetto-More, 2008; Martin, 2008). Furthermore, less than half of the students (45.6%) reported they would rather take a face-to-face class than an online class (Buzzetto-More, 2008). Students (99.1%) also liked being able to check their grades any time online (Buzzetto-More, 2008).

Disincentives For Online Learning

Researchers have also found disincentives for online learning. Serham (2010) found five traits that were considered to negatively impact online learning: delayed and limited feedback, interaction, self-learning, the amount of work (materials covered), and technical issues. Additionally, a study by Watters & Robertson (2009) found that the student reported dissatisfaction with online courses fell into two areas: lack of interaction and technical problems. However, Tanner, Noser, & Totaro (2009) found that students took online classes to reduce the amount of faculty-to-student interaction. This seeming contradiction may be explained by Lightfoot's 2009 study, which found that students preferred face-to-face interaction when the communication was complex, formal, and personal. This study also found that online

communication was more preferred for short or time-contingent assignments (Lightfoot, 2009).

The 2009 Watters & Robertson study did not indicate whether the technical problems originated

on the part of the college, student equipment and/or Internet, or simply a lack of technical

knowledge. However, the report's conclusions supported the latter suppositions.

The students in the Serhan (2010) study indicated that even though the disadvantages

were considered significant to them, the majority of the students also indicated that they would

continue taking online courses. The students reported that flexibility and convenience

outweighed the disadvantages (Serhan, 2010). Watters & Robertson (2009) concluded that the

undergraduate courses may have been rated differently because of educational attainment, age

and maturity, motivation, learning experience, learning style, and prior exposure to online

teaching, though no specific evidence was provided.

In a research study by Annetta, Murray, Laird, Bohr, & Park (2008) on communication

modes in online courses, students reportedly favored text-based chat to audio. The research

further showed that students preferred the instructor to use audio, but that text-based chat was

still preferred for student-to-student communication (Annetta, Murray, Laird, Bohr, & Park,

2008).

A study by Watters & Robertson (2009) indicated two themes are most related to student

dissatisfaction with online learning—interaction and technical problems. Furthermore, these

online disincentives may be barriers to online student motivation (Serham, 2010). However, a

recent study found that, while there were many different disincentives to online education, these

are outweighed by the benefits of online education (Serhan, 2010).

Components of Online Student Motivation

The current research on online learning that relates to online student motivation focuses on three driving forces that motivate students: the "role" of the teacher (instructional strategies), the online learning environment, and the student (Wadsworth al., 2007; Komarraju & Karau 2008; Artino, 2008; Martin, Martin, & Andrew, 2004; Chang, 2005; Chanlin, 2009). These three driving forces are the key focus of current research findings and this literature review will emphasize the current findings. Teaching strategies, the "role" of the teacher, and the classroom environment were found to be key components of student motivation that the teacher could control.

Instructional Strategies—Teachers continue to discover that the traditional classroom understanding of "how students learn" and "how to make a good learning activity" are not relevant, or are significantly changed, when used in an online educational setting. Wadsworth's (2007) research suggested that although students in online courses implemented many of the same strategies as their counterparts in traditional classrooms, there has been little evidence to show what strategies were most useful in the new environment and how some strategies may translate to a new learning environment.

The online environment further modifies the role of the traditional classroom teacher, because of the online environment itself and the time and space separation of students and teacher. Online instructors must also take into account that instructional techniques do not impact all students equally, and that students with different profiles of academic motivation will prefer and value different instructional techniques (Komarraju & Karau 2008).

Role of the Teacher—The "role" of the online teacher is that of a facilitator, and is more student centered by design. One of the key components of the online facilitator is feedback

(Wadsworth et al., 2007; Artino, 2008). This is a change from the teacher in the traditional classroom, where the learning was often teacher-centered, meaning the teacher had all the knowledge and would share it with the students. Komarraju and Karau's (2008) research confirmed that faculty members who were able to increase student involvement, both physically and psychologically, were more likely to enhance student learning and motivation.

In the online learning environment, the assigned role of the traditional teacher and is developing into the new role of the online facilitator and the role of the student is also changing from that of a passive receiver of information into an active participant in developing learning. Research conducted by Martin, Martin, & Andrew (2004) acknowledged the changing role of teachers, and pointed out that the role of the student was changing as well. The student has more responsibility for accessing data, and responsibility for sequencing and deriving meaning from the information was placed on the student, thus changing the role of the academic from that of a "teacher" to that of a facilitator of student learning. A teacher may hold all the knowledge, yet a facilitator allows students to discover the knowledge for themselves and in this process shifts the demands on the learners (Chang, 2005).

Classroom Environment—Student perceptions are a logical place to discover student motivation—and the literature has several studies on this topic (Chang, 2005). Students may initially be apprehensive about online learning. Martin, Martin, & Andrew (2004) found that, "the majority of students described their initial reaction as negative, with 54 percent of students expressing concern" (p. 142). The initial perception may be negative, but additional online course work might overcome those perceptions (Rodriguez, Ooms, & Montanez, 2008).

Based on the literature it seems that students desire some "handholding" to maintain their motivation when learning in the online environment. Students needed access to the schedule and

various course content modules, yet "most students required frequent reminding of their weekly tasks. Faced with students who were less self-motivated, frequent reminding and reporting of every student's learning progress from the course became an essential routine to keep students' attention on the course" (ChanLin, 2009, p. 96). This internal factor is beyond the control of the teacher. Ying et al. (2008) admits, "we discovered that the success or failure of the distance learner is usually due to effort. This is an unstable factor with an internal locus of control."

The very nature of the online environment provides some opportunities in which instructional design and facilitator input can improve student attention and effort. For example, online learning allows the opportunity to create multiple learning activities that appeal to students with different learning styles even within the confines of a single learning objective. Meeting the needs of the students through these different activities may lead to increased motivation and reduced frustration. It has been suggested that, "environmental features as a whole are perceived as barriers or enablers will impact motivation to learn" (Klein, Noe, & Wang, 2006). Online education, specifically the online environment may create new barriers to learning, but may also create new opportunities for learning in ways beyond the traditional classroom (ChanLin, 2009). Ying, et al. (2008) suggested that the online environment may encourage some learners too develop more independent learning styles.

> As a mature individual, the distance learner shifts from being a dependent type to an independent type. The transforming process will occur for different people at a different pace and within different lifestyles. Teachers have the responsibility for encouraging and supporting this transformation. (Ying et al. 2008, p. 25)

Several researchers have found that certain types of learners, mostly adult learners, commonly perform well in the independence of online learning. The written response from the

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teacher further characterizes the online learning environment. Moreover, Hurd (2006) found that students expect several key behaviors from the teacher in the online environment to help keep them motivated. "'Provide feedback' was selected by the highest percentage on both occasions "monitor and assess my learning progress," and "identify my problems as a learner" were high on the list of important roles in February, but less so in June, when "keep me motivated" and "correct my mistakes" were considered more important" (Hurd, 2006, p. 317). This change may describe the natural progression of an online learning becoming more comfortable with the online learning environment.

Turney (2009) supported the notion that direct communication from the teacher was a key element of the online environment. Katz & Assor (2007) further supported the need for communication and found, "teachers' feedback (an environmental factor) influenced students' self-efficacy (a personal factor) and lead students to choose more difficult tasks or more complex strategies (a behavioral factor)" (p. 430). Turney (2009) insists that communication is one factor that may spark motivation, but in the online environment, communication must occur in a way that encourages motivation. Huitt (2006) explained that the social cognition theory viewed three components of motivation, with the teacher influencing all three: behavior, personal factors, and the environment. He further suggested that the environmental aspects must be deliberate and proactive.

The nature of teacher–student communication is different in a traditional face-to-face classroom and an online course. A study by Bixler (2007) investigated the effects of question prompts in scaffolding college students' problem-solving process and motivation on an ill-structured task. Bixler (2007) found that face-to-face students working with question prompts significantly outperformed students without question prompts in all four problem-solving

processes: process displays, process prompts, process modeling, and reflective social discourse. The study implied that, in order for students to gain full benefits from question prompts, some teacher or peer interaction may be needed, and this interaction process itself may need to be scaffolded. However, in an online learning environment, question prompts may constrain students from full exploration of the available resources.

     When designing these online learning environments, Bixler (2007) stated,

we need to understand enough about motivation to know how to effectively

employ it in instructional design processes. An understanding of the particular

conditions that energize human behavior is needed if we are to successfully

control motivational constructs in instruction. (p. 251)

As shown throughout the literature, the role of the teacher, the student and the environmental aspects of education are key to student motivation in the online environment.

Motivational Role of the Instructor

Both teachers and students are sometimes thrust into this new learning environment, without prior knowledge or instruction. A significant portion of the online education literature is focused on student learning, in part to identify ways of improving instructional design (Ying, et al. 2008). The lack of literature on teacher perceptions toward student learning in the online environment and, to a lesser extent, the creation of online learning environments, is of importance when evaluating motivation of online students. Martin, Martin, & Andrew (2004) suggested that the transfer of existing teaching materials to the Web format required an element of rewriting, as well as the packaging, design and presentation of materials, which need careful

consideration to engage the students. In addition, ChanLin (2009) referred to another area of limited research,

> In spite of the wide variety of Web-based technology developed to support learning
> activities, some important educational elements, such as teaching styles and motivation
> issues, have been largely missed in the teaching systems. Therefore, there exist many
> problems in current Web-based learning systems. (Huang, Yen, Lin, & Huang, 2004, p.
> 91)

As the literature has revealed, teachers and their influences on online student motivation are a factor that may hold significant importance in developing (or discouraging) the motivation of online students.

Online education is still new, and many current educators have not experienced the online environment from the standpoint of the student. O'Connor (2007) points out, teachers tend to teach the way they were taught...or so the conventional wisdom predicts. Teaching in new ways will likely come from training or in new ways of designing instruction. Teachers will need to adopt instructional strategies that maintain a fine balance between the use of technology and other modes of teaching that address the social and psychological needs of students (Komarraju & Karau, 2008). Teaching strategies applied online may have a different effect on students than similar strategies employed in the face-to-face classroom. Thus, student motivation may differ compared to the traditional classroom. Wadsworth, et al. (2007) further supports this idea and notes another concern,

> Although the popularity of Web-based instruction is growing, very little research
> has been conducted that examines the use of learning strategies and their effects
> on student learning and achievement in Web-based courses. The current research

seeks to better understand the impact of students' motivation and learning

strategies on their performance. (p. 6)

Understanding how learning strategies influence learning in online courses may help instructors

and course designers to provide tailored, and therefore more effective, course-specific instruction

in these vital learning strategies. Artino (2008) found that teachers in the traditional face-to-face

classroom may provide guidance and classroom management in a particular style, but because of

the physical absence of the teacher in the online learning environment, the responsibility for

learning shifts to the online facilitator and the student.

Another aspect that is different in the online environment is the learner-centered focus in

online learning. According to Artino (2008), the recent growth in online learning has resulted in

a major shift in education and training from an instructor centered to a learner-centered focus.

This shift is also happening in the traditional classroom, but the online environment especially

lends itself to this type of learning. Martin, Martin, & Andrew (2004) recognize that four

primary processes, or teaching strategies, are required for optimum learning: (1) learning at your

own pace, (2) at times and places of your own choosing, (3) you are in control, (4) other students

help students learn. The online learning environment is particularly well-suited to facilitate these

processes.

In conclusion, current research supports the evolution of a new role for the traditional

teacher as he or she adapts to the online environment—to become the online facilitator using a

student-centered learning approach (Artino, 2008). In addition to the new role as a facilitator,

the traditional teacher may need to redesign materials and teaching strategies for use in online

teaching to engage students (Wadsworth's, 2007). Furthermore, the online course elements and

design may play a critical motivational role of the online instructor.

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Motivation and Online Learning Course Design

Researchers have conducted experiments to gain insight into student motivation, as well as to discover the effects of various teaching methods on student motivation in traditional classrooms. According to Rovai (2007), "the majority of the research on the effects of the learning environment on intrinsic motivation has focused on autonomy." However, narrowly focusing on autonomy does not allow for other possible variables, such as the design elements of learning environments that may increase or decrease a student's intrinsic motivation. Generally, past research that focused specifically on learning environments did not indicate that the learning enviroment was a significant factor in the performance of students by evoking their intrinsic motivational insights. Furthermore, the environment-focused research has typically ignored the intrinsic motivation of the students (Ying, 2008).

The potential motivating factors in various designs of learning environments are somewhat disconnected from the current motivation research on online learning and newer technologies. The research conducted by Rovai suggests that the novelty effect of the use of new technology, such as e-learning systems, can help create curiosity and increase motivation to learn. The research conducted by Huett, et al. (2008) refutes this finding, however, and suggested, "with the widespread use of computers in education; one could no longer depend on the "novelty effect" of technology to stimulate learner motivation."

Technology is common in the online educational setting, and if the technology no longer has a "novelty effect," it may have the opposite effect for some learners and become a barrier to success (motivation being a key factor to success). The research conducted by Muilenburg and Berge (2005) suggested that, "respondents with the highest level of comfort and confidence using online learning technologies perceived significantly fewer barriers…than the other three

groups who were unsure of their skills or were not using online learning technologies" (p. 39).

Another researcher, Bixler (2007) suggested that while it was possible for the instructional designer to resolve some of the barriers, not all barriers could be overcome though the design of the system. Removing the barriers and creating a well-designed online learning environment may increase student motivation. Kruse (2008) pointed out that motivational aspects of the instructional design strategy were one of the most overlooked elements. The motivational design of online learning environments are a critical element needed for learners (Kruse, 2008). Motivation is key a factor for learning and thus even the most elegantly designed training program will fail if the students are not motivated to learn. The research highlights two major concerns regarding the use of technology (1) technology itself may be a barrier to motivation and (2) motivation is overlooked when designing instruction.

Current research has generated insights into student motivation in the traditional classroom, and to a lesser extent in the online learning environment. The two distinct delivery modes of traditional classroom and online learning leave a gap in the current research as it relates to the understanding of motivation in the online learning setting. Furthermore, Shroff, Vogel, and Coombes (2008) suggest, "little is known about the impact of different technology-supported learning activities on student intrinsic motivation or whether such learning activities significantly enhance student intrinsic motivation compared to traditional classroom environments without technological support" (p. 111). The Keller ARCS Model of Motivation provides a framework to study motivation in the online learning setting.

Theoretical Framework: Keller ARCS Model of Motivation

Keller ARCS has proven to be a sound model for designing motivating instructional materials. Even though it was developed well before the advent of online learning, it has provided educators with a way to understand learning that takes place through discoveries that result from investigations made by students (Martin, Martian, and Andrew; 2004). This model may also provide a means for stimulating and sustaining curiosity, which is a special challenge for today's educators (Ryu, 2010).

The ARCS model of motivation has four categories required to achieve and sustain student motivation: attention, relevance, confidence, and satisfaction. Keller (2006) states that, "the ARCS model of motivational design consists of a set of categories of motivational concepts and strategies that are derived from a synthesis of the research on human motivation combined with a review of successful motivational practices" (para. 9). The ARCS model of motivation may apply to nearly all learning environments and may integrate with various teaching methodologies as a way to ensure the design of the learning environment will "stimulate and sustain student's motivation to learn" (Keller, 2006).

Keller ARCS model outlines four key factors necessary to motivate students, and keep them motivated during the learning process. Regrettably, motivation is not simply a switch that an instructor can flip on when the student enters the classroom, so instructors must ask themselves what they can do to help motivate students. Motivation is the most overlooked aspect of instructional strategy, and perhaps the most critical element needed for learners (Keller, 2006). Even the most elegantly designed program will fail if the students are not motivated to learn. Without a desire to learn on the part of the student, retention is unlikely (Kruse, 2008).

Motivation in the traditional classroom may be even more disconnected from a student's intrinsic desires, as many classes may or may not be related specifically to the student's goals, future work environment, or have little if anything to do with their current life. According to Bowman (2007), "the art of good teaching, therefore, lies in designing systems and incentives in such a way that students will naturally do the right thing for themselves and for the common good" (p. 84). One could conclude that instructors who are vigilant in designing motivation-focused learning environments may be able to increase student motivation. The Keller ARCS model provides guidance for the design of motivation-focused learning environments.

The Keller ARCS model in its most basic form seeks to do the following:

(1) Gain the <u>attention</u> of the students. Attention is the first stage to attain before the other categories of the Keller ARCS model may be applied. Keller suggests strategies for gaining attention that may include: discussion questions, changes in the use of various elements, such as media, and internal reflection. Once the students' attention is gained it must be maintained. The second element in the ARCS model, Relevance, seeks to provide ways to maintain attention.

(2) Create <u>relevance</u>. This category focuses on maintaining motivation by establishing the usefulness and significance of the topic. The student should clearly be able to identify why it is useful in their everyday life. Strategies for presenting relevance may include: providing clear objectives and overviews, relating the information to students' prior knowledge, and incorporating current real-life events and reading that would demonstrate the importance of the topic. Once students establish the importance (relevance) of the topic, they must have opportunities to interact and engage with the topic, as explained in the third category of the ARCS model, Confidence.

(3) Develop <u>confidence</u>. This category of the Keller ARCS model is the point where learning and understanding develop and where the students have a chance to apply their learning about the topic. Strategies for developing the confidence category may include: offering independent practice, arranging material from easy to more difficult, presenting a clear sense of the time required, including group projects and discussions, and applying the topic to real world applications.

(4) Increase <u>satisfaction</u>. Students need to feel some type of pleasure from their learning activities and this category is a key element in the overall motivation and continuation of motivating students. During this stage students may internalize or externalize their satisfaction, or lack thereof depending on whether students view the satisfaction as intrinsic or extrinsic motivation. This is also where the instructor should provide supportive feedback and praise. The Keller ARCS model of motivation allows for a conversion of the traditional learning environment to a refocused student centered motivation-focused learning environment.

The Keller ARCS Model of Motivation and Online Learning

Student motivation is different for traditional classroom and e-learning students. According to Rovai (2007), "e-learning students manifested significantly stronger intrinsic motivation than traditional classroom students on all three intrinsic motivation measures: (a) to know, (b) to accomplish things, and (c) to experience stimulations." Traditional classroom students may be less intrinsically motivated, as suggested by Ravai (2007), but that does not preclude the notion that they could not also be intrinsically motivated.

In the traditional classroom with limited time, space, and resources, it may be difficult to address each category of the Keller ARCS model of motivation. The challenge of meeting these

motivational needs is further compounded when trying to motivate each student in a classroom filled with numerous students. Countless situations could be described in which the traditional classroom may be unsuccessful in accomplishing each category of the Keller ARCS model of motivation. While the online environment creates certain limitations due to the absence of physical proximity, there are many instructional strategies that may be applied asynchronously to help overcome this disadvantage.

The Keller ARCS model of motivation begins with attention. In the online learning environment, instructors may be able to grab students' attention by offering access to class materials that may not be available in a traditional classroom, as well as drawing upon other unique characteristics of online learning, such as enhanced connections with other students. "Instructors have recognized the value of having students connect with each other to support each other; they now try to build learning communities" (Bates & Watson, 2008). Instructors may provide for an online community to capture students' attention. It is important to consider that many students already utilize online learning technologies. Thus, the learning curve for these students may not be as great as those students unfamiliar with the technology. Providing new and interesting material/activities online may also help keep the attention of students.

Students want the course material to be relevant to their lives and future goals (Buffington, 2007). In the traditional classroom filled with diverse students, individual students may not have the opportunity to contemplate the personal application of the course material. In the online learning environment, students may be given tools for reflection such as a private online journal, a public discussion forum between students, or simply a blog listing from each student describing how and why the topic is useful to them. Another way to help ensure that

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students understand the relevance of the topics is to offer supplementary notes and links to current events or provide links to related events and readings.

The ARCS model of motivation requires that each category be fulfilled for optimum motivation. Continued motivation, which creates more relevance and meaning provides students to have a chance to connect their learning to authentic topics. The online learning environment offers additional methods of helping students make these connections (Johnson, Levine, Smith, & Stone, 2010).

Implementing the Keller ARCS Model of Motivation

There are some strategies for implementing Keller ARCS. One of the most notable aspects of the online learning environment is that such learning captures the best of both worlds by enabling learners to pick and choose what they want to learn, how they want to learn, and when they want to learn it (Baldwin-Evins, 2006). By expanding the time and location learning may take place, students can individualize the learning experience. This allows them to not only choose time and place that works best for them, it also allows them to review specific topics until they feel comfortable. Another strategy for implementing online learning to the Keller ARCS model is in the use of self-assessments that can electronically be graded and provide immediate feedback for students. A way to connect students to one another and the instructor may be the use of an online discussion. Furthermore, students could discuss concepts and related class material in a safe and nonintrusive environment. Many students will not ask questions or discuss in a classroom filled with students, but in an online discussion may feel more comfortable. Shy students, or those who are not quick to speak may not get the opportunity to add to the class discussion. However, in an online learning environment students have equal opportunity to

participate. Grades are a motivator for some students and updated accurate grade may provide them continued motivation throughout the course. Accepting homework electronically from students may benefit students by enabling them to have a copy of the work submitted, along with easy access to their grades. There are too many ideas that reflect the confidence category of the Keller ARCS model of motivation to list in this analysis, but a few suggestions are identified.

Satisfaction is important. Many students desire a simply a verbal "pat on the back" or any form of connection that conveys the worth and purpose of their education. The online learning environment allows instructors to communicate with their students in multiple ways—podcasts, videos, audio messages, images, and text, as well as real-time advising via video or audio conferencing. "As much as students value the intrinsic satisfaction of genuine accomplishment, they also value non-controlling extrinsic symbols of success, such as a choice on how to approach tasks and projects" (Bowman 2007). The online learning environment also allows for prompt feedback and viewing by others in the class, instead of just the instructor.

Chapter Summary

This chapter reviewed motivation, motivation in online learning environments, and various factors that previous research had found to be motivating. It also discussed some of the other factors that inhibit motivation. Furthermore, this chapter included a detailed description of the Keller ARCS motivational model which is the theoretical foundation supporting the proposed study. Although significant research was sited describing motivation in the traditional classroom, the application of motivation research for online students is minimal, and the Keller ARCS model of motivation to date has not been applied to online learning. The scarcity of research in these areas, provides opportunity for this research study. The issues described in the

literature have led this study to question how online course elements were motivational to

Business students. The faculty of specific courses will also be surveyed to further develop the

research on course elements.

CHAPTER 3 - METHODOLOGY

Introduction

In this chapter, the research methods and procedures that were used in the study are described in detail, beginning with the research questions, the research design, research setting, participants of the study, and the data collection methods that were employed. Lastly, this chapter ends with the trustworthiness of the research, and the ethical considerations of this research study. The Kansas State University IRB approval letter, Participation Letter of Consent, Student and Professor Interview Protocol, and Student and Professor Interview Questions are included as appendices.

Research Questions

The study explored the following research questions:

1. How do undergraduate first-year Business students perceive online course elements as being motivational?

2. How do the online courses that Business students perceive as being motivational use the Keller ARCS Motivational Model?

3. How do exemplary online Business faculty use the Keller ARCS Motivational Model in online instruction?

Rationale for Qualitative Research

This study used a qualitative design to understand the research problem more completely (Creswell, 2003). Using qualitative research methods to study the motivation of students and

professors in online learning environments allowed for a deeper understanding of the complexity

of contemporary students, their learning environments, and practices. Qualitative research

provided a "means for exploring and understanding the meaning individuals or groups ascribe to

a…problem," in this case, the problem of student motivation. The study used an inductive style

with "a focus on individual meaning, and the importance of rendering the complexity of a

situation" (Creswell, 2007 p. 4). Online learning environments are very diverse, depending on

the resources of the institution and the individuality of the instructor. In the online learning

environment, students may be asked to use new tools, which they may be asked to interact with

in unfamiliar ways. For students, the landscape of learning is drastically altered, although they

are still able to anchor their learning experiences based on the familiar structure of face-to-face

class meetings (Dziuban, Hartman, & Moskal, 2004). The perceptions may change as they

complete each learning activity, progress through course material, and encounter more online

experiences. For these reasons, a qualitative study provided an opportunity for student voices to

be heard, and for professors to reflect on courses and make meaning through the research

process.

Case Study Rationale

In qualitative research and design, the case study has a long history of use for participants

to describe their situation in greater detail. Yin (2008) states that, "case studies are the preferred

method when (a) "how" or "why" questions are being posed (b) the investigator has little control

over events, and (c) the focus is on contemporary phenomenon within a real-life context" (p. 2).

Hatch (2002) defined the case study as "a special kind of qualitative work that investigates a

contextualized contemporary (as opposed to historical) phenomenon within specific

boundaries" (p. 30). Creswell (2007) added more detailed characteristics stating, "case study

research is a qualitative approach in which the investigator explores a bounded system (a case) or

multiple bounded systems (cases) over time, through detailed, in-depth data collection involving

multiple sources of information…" (p. 73). Key characteristics found in all definitions of case

study include boundaries for each case, in-depth data collection, rich description of each case,

and reporting of results as themes.

In this study, the research problem was to understand the online learning environment

through the experiences of the individual learner and to gain more insight into the elements of

online Business courses. Each of the participants had an experience to describe, and was

provided clear boundaries within which to explore his or her motivation. Through the interview

process, the informants shared not only the facts of their experience but also the feelings that

underlay their motivation, allowing the researcher to view the participants and classes through

their eyes.

Yin (2008) asserted that by the very nature of focusing on "what" research questions

would likely lead to asking, "What can be learned from the study of..." Yin (2008) stated that by

asking the possibilities of the "what" research question that, "this type of question is a justifiable

rationale for conducting an exploratory study, with the goal being to develop pertinent

hypothesis and propositions for further inquiry" (p. 9). Yin (2003) described case study design as

a way to help answer the research questions designed to answer "what" and "how."

Furthermore, '"how" and "why" questions are more explanatory and likely to lead to the use of

case studies' (Yin, 2008, p. 9).

The research was conducted using a case study approach in which data was collected

through individual semi-structured interviews of students and student-nominated professors, as

well as course documents of the Business courses, to help clarify "how" certain extrinsic and

intrinsic motivational factors were significant to the research problem, and learned what the

elements are of the courses that these professors teach. It is important to note that the qualitative

research completely represents the research method of the study.

Yin (2008) identified six sources of evidence as being necessary to proper case study

research: documentation, archival records, interviews, direct observations, participant-

observation, and physical artifacts. Furthermore, Yin (2008) asserted that multiple sources of

evidence are required and that the each source has strengths and weaknesses, but "no single

source has a complete advantage over all the others" (p. 101). Accordingly, this study used both

semi-structured interviews and documents as multiple sources of evidence to answer the three

research questions.

Semi-structured interviews were conducted using interview protocols for student and

faculty interviews.

Documents analyzed were course syllabi and supporting documents, student assignments,

and LMS documents.

Data Collection and Analysis Methods

For data analysis, Miles & Huberman's "pattern coding" approach to coding was used

(Miles & Huberman, 1994, p. 69). Pattern coding and the process of coding and recoding were

used for three purposes: (1) it reduces large amounts of data into a smaller number of analytic

units, (2) it allows for more focused fieldwork, and (3) it allows for common themes to surface.

Because of the elements, components, and strategies in the Keller ARCS Motivational Model, as

well as other motivational aspects to be studied, a "conceptually clustered checklist matrix" was

used, since the organizing principle of Keller ARCS is the cluster of concepts (elements, components, and strategies), which aided in theme-building (Miles & Huberman, 1994, p. 127). "A checklist matrix is a format for analyzing field data on a major variable or general domain of interest which includes several components" (Miles & Huberman, 1994, p. 105).

Data analysis included coding and recoding units into categories to develop patterns and themes. Pattern codes were developed during the interview process and those codes were "tried out" on the next subsequent interview to see if they "fit" (Miles & Huberman, 1994, p. 70). Following the Miles & Huberman procedure, "next, the most promising codes to emerge from this exercise are written up" (p. 70), then these pattern codes were checked in the next interview and so on. Triangulation of the evidence was accomplished through multiple sources of evidence and member checks.

Data Collection Procedure

Those individuals that met the purposeful selection criteria were contacted by phone by the researcher. At the time of the initial call, the research study was described, the purposeful sampling and importance of student input was explained, along with informing the student of interview question topics, interview time, and interview location options. Also, the participation letter of consent was discussed at the initial phone call. For each student who was interested and willing to participate, the participant and researcher mutually agreed upon a time and place, with the option of a phone interview available. The researcher verified the student's email address and sent the letter of participant within 30 minutes of concluding the initial call. Most of the consent forms were received via email and used as signed consent.

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The researcher used the semi-structured interview (Appendix C – Interview Protocol) to maintain consistency during the interviews. The researcher initiated the phone interviews and called the participant at the agreed-upon time. Some participants needed to reschedule and that was allowed. The participants were reminded that the study was completely voluntary, and participants had the option to withdraw at any time during the study. The interview session continued with a brief overview of the consent for participation, and each participant was asked if he/she would voluntarily participate. Topics reiterated from the initial phone call were: the purpose of the research study, the purposeful sampling, the importance of student, interview question topics, interview time, and interview location options. Participants were reminded that the researcher took reasonable precautions to maintain confidentiality and anonymity for the students in the study, thus each participant was asked to respond honestly and thoroughly during the interview. The researcher asked if the participant had any questions, and asked the participant if the researcher was allowed to begin audio recording the interview. All eighteen student participants allowed the researcher to audio record the interview.

The individual student interviews took place at the end of the Fall semester. Each student participant was offered the option of either a face-to-face or a phone interview at a time of their choosing. Fifteen student interviews took place via phone and the remaining three took place at main campus in the interviewer's office. All interviews were recorded using a digital audio recorder. During the interview the researcher took notes, which the researcher used to expand questioning and come back to certain topics. Following the interview, the participant was asked if he/she had any questions or wanted to add anything he/she felt might be important for the study. The researcher thanked the participants and stopped the audio recorder. The researcher

explained the remaining steps in the study, one of which allowed the participant to review their specific transcript and make changes or explain if needed.

Each digital audio recording was saved using a pseudonym for each participant in the study. The same pseudonym was used to name the transcribed text file. Only the initial researcher knew the actual student and the pseudonym used for that student (i.e. A540F for student participant and F1100F for faculty participant).

Transcription

Microsoft Word and Express Scribe (computerized transcription software) were used to transcribe each interview into text verbatim from the digital audio file. While the interview was transcribed word-for-word, filler words such as "uuhhmm," "ya know," "aaaaa," "well," etc. were omitted. Each statement by the interviewer was formatted bold and all statements from the interviewee remained unbolded; double-spacing was used between each statement. The transcribed text file was then sent via email to the participant for member checking of their own interview transcript, so each could correct and clarify their interview comments. Member checking was the process of the participant to verify the information from the interview was accurate. Feedback from the participants was incorporated into the final interview transcript document. After the interviewee had an opportunity to verify that the transcript was accurate, the transcribed text was copied with formatting into Google Docs for coding.

Coding Process

The coding process occurred in the following manner: (1) the interview was coded based on the first research question, (2) the interview was coded based on the second research question, (3) the interview was coded based on the third research question, and finally, (4) the interview

was then reexamined considering all three research questions as a whole to ensure the coding

process did not overlook data relevant to the study. During this coding process, the print screens

of the courses were used to help accurately code based on the course content and the context

described by the participant. The units were developed and analyzed by the researcher to

describe an organized and detailed story of the phenomena being studied. The units for research

question one were not derived from previous literature or theory-based studies on motivation, but

rather from the interviews of the participants in this research study. The units for research

question two and three were derived from the Keller ARCS Motivational Model. After the

interview was coded, the Google Docs interview was shared with the Major Professor. Skype

and Google Docs were used to allow for a distance collaborative effort for each student interview

to be reviewed by the researcher and the Major Professor. The researcher discussed the coding

and evaluated the coding, and the Major Professor suggested modifications to be made. After all

student interviews were coded using Google Docs, the coded Google Docs files were imported

into Microsoft Excel, for interpretation and record-keeping purposes.

Microsoft Excel was used for the remaining coding process of developing patterns and

themes. The research questions and the Keller ARCS theoretical framework were used to help

the researcher remain focused during the analysis stage. Microsoft Excel was used to organize

the unrelated data according to topics. To accomplish this, various Excel features were applied:

find & replace, functions, data removal, and pivottables. Codes were created, combined, and

changed during this process, due to the changing of codes and reorganization of units. It was the

goal during this phase to keep the expressed intent and meaning related to the course element,

and as such, the course elements became key categories from which patterns and themes

developed. The units were analyzed and used to develop patterns and themes about those course

elements. The process described above was applied and reapplied throughout the coding

process. The specific research questions in this study were:

1. How do undergraduate first-year Business students perceive online course elements
   as being motivational?

2. How do the online courses that Business students perceive as being motivational use
   the Keller ARCS Motivational Model?

3. How do exemplary online Business faculty use the Keller ARCS Motivational Model
   in online instruction?

The research questions were frequently consulted during the coding process, from when

units were first coded throughout the development of patterns and themes. Yin suggests that

qualitative research by its very nature requires discovery during the data analysis to help make

meaning from the findings.

Research Setting

The study was conducted in a public two-year community college located in the Midwest

with 6,522 total students (Full-time students 2,624; Part-time students 3,006; Dual enrollment

(high school) 892). The research location had an established distance education offering with

2,552 students enrolled in the Fall 2010, which was an increase of 4.62 percent from the prior

year. The distance education offerings included telecourse, ITV, Teleweb, and online, with the

highest enrollment in online education. The research site was described as similar to other

community colleges in the same state with respect to the demographics of the student population.

The community college was the fourth largest two-year community college in the state and

offered one-year technical certifications and two-year technical degrees (Associate of Applied

Science degrees), as well as two-year transfer degrees (Associate of Arts degrees or Associate of Science degrees). It also provided noncredit courses that serve a wide range of community needs including GED programs, adult education, personal development courses, and industry requested classes.

Approximately 42 percent of the institution's full-time student population were pursuing a technical certificate or degree and the remaining 58 percent were pursuing a transfer degree. The community college had a significant number of part-time students (3,006) representing 46 percent of the student population. The student population was composed of 52 percent females; 59 percent were age 18-22 (41 percent or just under half of the students were considered non-traditional, and these students were commonly in the traditional daytime face-to-face classes), 93 percent were in-state students, and the graduate exit survey indicated 60 percent of students spent 0-2 years attending the college. The community college had a residence hall and a local population with only a minor portion driving more than 20 minutes to attend classes. The city where the community college was located had a population of approximately 40,000, with the next major town approximately one hour away.

Research Location Online Course Offerings

The college was established in 1928 and has grown in size, in number of program offerings, and in number of locations and course delivery methods to meet the needs of students in the region. Online education has been available at the research location since 1999 and the college has seen steady online growth in the past few years from 7,503 students in 2007, to 8,523 in 2008 and 9,742 in 2009, which is an increase of almost 30 percent. It is important to note that these numbers represented duplicated headcount for fall, spring, and summer. At the research

location, online classes begin every two weeks through the year with classes available in the Fall, Spring, Summer, and Interterm sessions. The length of an online class may vary from the traditional 16 weeks (a full semester long) to a compressed four week course. Each online section has a maximum limit of 18 students per section, and new sections are opened when the demand for it arises, without an upper limit on the total number of sections offered in a given semester. All online courses use the ANGEL Learning Management System as the portal for online course delivery. The online courses become available to students three days prior to the start date of the course and may be accessed by utilizing the student portal. It is each instructor's prerogative to set a schedule and due dates for each class, but all classes grouped the content together as weekly chunks.

The research location has a strong offering of online education, which is reflective of the tremendous online growth. Online learning accounts for around 400 courses and 830 course sections offered in 2009. The community college online credit hours of 27,796 accounts for approximately 26 percent of the institution's total credit hours (108,444 credit hours). In the purposeful sampling for this study, the researcher balanced the need for diverse perspectives and the need to establish a foundation of understanding for the reader. Compared to the national average, the college's students are younger than those at community colleges of similar size.

According to CCSSE (Community College Survey of Student Engagement) data, 50 percent of students are 18 - 21 while 40 percent of students at cohort institutions are in this age range. Approximately 42 percent of the credit hours are from technical programs and 58 percent are from transfer programs. Within the business department, 60 percent of 2009 graduates planned to transfer to a baccalaureate granting institution.
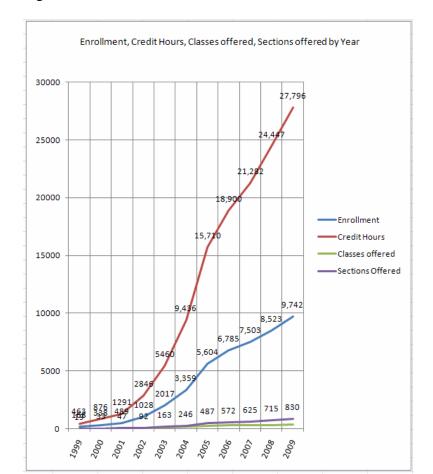
Figure 3.1 Online Growth at the Research Location

Table 3.1 Academic Year, Headcount and Credit Hours

Academic Year	Headcount	Credit Hours Provided
2000 - 2001	7,370	69,167
2001 - 2002	7,948	74,053
2002 - 2003	7,885	76,880
2003 - 2004	8,128	85,471
2004 - 2005	8,389	88,154
2005 - 2006	8,413	90,461
2006 - 2007	8,532	90,257
2007 - 2008	8,508	92,049
2008 - 2009	8,847	95,820
2009 -2010	9,571	108,444

Business Department Research Site

There were six full-time faculty members in the business area and one adjunct (part-time instructor that had a continuing contract), with five of the full-time faculty teaching online each semester. The business department offered four transfer business degrees and four technical degrees. From those, two of the degrees were removed from the potential course offerings used in the study because of extremely low to no enrollment. The remaining degrees resulted in three transfer programs and three technical programs that were included in the study. One technical program was available completely online and many of the courses required of the other business programs were also offered online.

The courses used in this study were purposefully selected by the researcher—first-year (freshman-level) for-credit online business courses, but were not created specifically for this research study. All course materials were available online within the course portal—ANGEL LMS. The textbook, in many cases, was not available online in a digital format and thus the textbook was not available to the student until he/she received it from the campus bookstore. Each course had a unique design of the instructor's choice, but all online classes shared some common features such as the "start here" folder that included the syllabus, contact information, course schedule, textbook/supplies, an instructor introduction, and other information unique to the course. The courses were "chunked" into weekly modules (activities).

The instructors who taught the six classes had all taught online using ANGEL LMS in the prior semester. ANGEL LMS had been used at the community college for the last five years, so instructors would have been familiar with the LMS. However, the ANGEL LMS would likely be new for each student since it was likely one of the student's first online courses. Each instructor was teaching face-to-face classes as well as online classes in the Fall 2010 semester.

Specific training to teach an online class was not mandatory, and instructors had opportunities to utilize training offered at the research location.
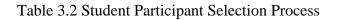
Participants of the Study

The participants in this study were 18 students and 3 instructors. The students were first-year Business students and the instructors were those most often nominated by the students as being most motivational.
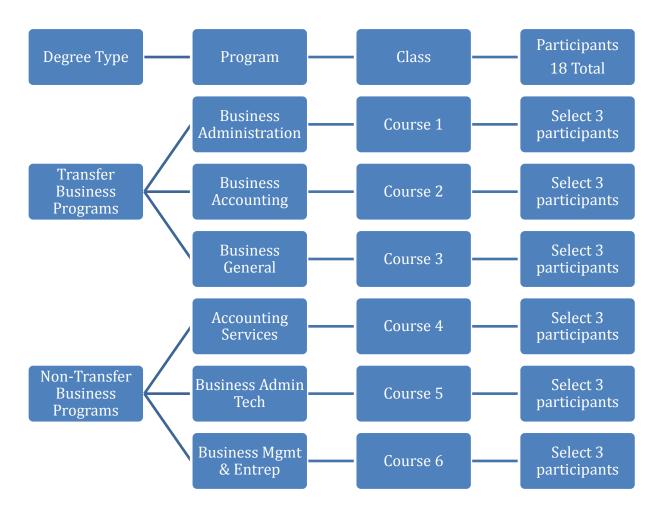
Student Selection Criteria

The population of this study consisted of students enrolled in a first-year for-credit online class during the Fall 2010 semester at a midwestern community college. The researcher purposefully selected certain sections of online business classes in order to investigate Business student motivation. The selection process of the courses was based on four main criteria: (1) the class was offered online in the semester the research was conducted, (2) the class was considered a first-year business class, (3) the classes selected would represent one class from each of the six main business programs in the business department, and (4) the class was a for-credit 3-credit hour course. Additionally, the selected business courses were likely one of the first online classes in business in which a student would enroll. Each online course had a maximum enrollment of 18 students, and most classes were at the enrollment maximum limit, with the required minimum being 12 students for a class to continue. As a result of the selection process, six online courses were selected for the study. All six of the selected online courses were delivered in both face-to-face and online offering in the Fall 2010 semester. However, this study

focused specifically on the online sections. Only students enrolled in the current semester in the courses were included.

The researcher further applied purposeful selection of online Business students within those courses identified above. The selection process of the Business students was based on the following criteria: (1) the student was enrolled in one of the first-year online business courses identified above (2) the student was not currently enrolled in a course taught by the researcher (3) the student was a business major (all business programs were valid) (4) the student had accumulated less than 12 credit hours prior to the Fall semester and (5) the student had not attended this college in the previous Fall. It should be noted that because of criteria number 2 above, there could be reverse bias by not choosing students in the researcher's own classes. This selection process narrowed the sample population to those students that best met the specific population criteria to answer the research questions in this study. The selection process resulted in the final total population:

Table 3.2 Student Participant Selection Process

Degree Type	Program	Class	Participants 18 Total
Transfer Business Programs	Business Administration	Course 1	Select 3 participants
	Business Accounting	Course 2	Select 3 participants
	Business General	Course 3	Select 3 participants
Non-Transfer Business Programs	Accounting Services	Course 4	Select 3 participants
	Business Admin Tech	Course 5	Select 3 participants
	Business Mgmt & Entrep	Course 6	Select 3 participants

Table 3.3 Courses and Student Population

Course	Number of students
Course 1	12 students
Course 2	10 students
Course 3	14 students
Course 4	8 students
Course 5	13 students
Course 6	14 students

The total population from all six courses was 71, with 15 (21%) males and 56 (79%) females. From this population, the researcher used a convenience sample of three students from each course to interview. Next, the students were cross-referenced to identify students enrolled in multiple first-year online business courses. Students that were enrolled in more than one first-year online business course were selected for representation for only one of the courses. Three unique students from each first-year business class were selected to be interviewed for the study, for a total number of 18 student participants. During the interview, students who were enrolled in more than one course often discussed those other courses.

Table 3.4 Student Participant Descriptions

Student 1	22 year-old who worked 40 hours per week while being enrolled in 16 credit hours; enrolled in 6 credit hours (2 courses) online and 10 credit hours (4 courses) face-to-face on campus
Student 2	37 year-old who worked 40+ hours per week, while enrolled in 6 credit hours; enrolled in 6 credit hours (2 courses) online and had completed 6 credit hours (2 courses) during the summer; he moved to another city (approximately 50 miles away)
Student 3	25 year-old who worked 40 hours per week at a local financial institution, where she enjoyed the work, while being enrolled in 6 credit hours (2 courses) online
Student 4	50 year-old who worked 40 hours per week in a local business, while being enrolled in 6 credit hours (2 courses) online
Student 5	19 year-old who worked 30 hours per week at a local financial institution, while enrolled in 13 credit hours
Student 6	29 year-old who worked at home, while enrolled in 10 credit hours (5 courses) online
Student 7	41 year-old who described herself as a full-time mother and employed full-time outside the home; enrolled in 12 credit hours (4 courses) online
Student 8	37 year-old who worked 40 hours per week, while being enrolled in 6 credit hours (2 courses) online
Student 9	22 year-old who worked 40 hours per week, while being enrolled in 15 credit hours (6 courses) online
Student 10	29 year-old who worked 40 hours per week, while being enrolled in 6 credit hours (2 courses) online
Student 11	38 year-old who worked an unspecified number of hours per week, while being enrolled in 6 credit hours (2 courses) online
Student 12	57 year-old who worked 40 hours per week, while being enrolled in 3 credit hours (1 course) online
Student 13	46 year-old who worked 40 hours per week, while being enrolled in 9 credit hours (3 courses) online
Student 14	48 year-old who worked 40 hours per week, while being enrolled in 6 credit hours (2 courses) online
Student 15	27 year-old who worked 40 hours per week, while being enrolled in 12 credit hours (4 courses) online
Student 16	34 year-old who worked 40 hours per week, while being enrolled in 12 credit hours (4 courses) online
Student 17	36 year-old who worked 40 hours per week, while being enrolled in 9 credit hours (3 courses) online
Student 18	24 year-old who did not work, while being enrolled in 15 credit hours (5 courses)

Student Profiles

Eighteen students participated in the interviews, which began on November 16th and were completed on December 12th during the Fall 2010 semester. Each interview represented the unique background and experiences of the participant. The student interviews ranged in time from 35 to 50 minutes, depending on the participant. Fifteen of the interviews were completed by phone and three were completed in person.

Student 1 was a 22 year-old who worked 40 hours per week while being enrolled in 16 credit hours. She was enrolled in 6 credit hours (2 courses) online and 10 credit hours (4 courses) face-to-face on campus and had taken one course during the summer. She lived in the college town all her life and had planned to attend all face-to-face classes, until,

> *I got the new job like right before classes started this semester so my whole entire schedule completely changed...I only worked like fifteen hours a week and went from doing that to working forty hours a week or more. So it's gotten pretty hectic but it seems to work.*

Furthermore, she stated her reason for taking the current online courses were, *I was just going down the list of classes just so I could get my degree.* She was single and had no children. She indicated during her interview that her computer skill level was higher than average. During the interview, she offered many of her answers with a humorous responses. For example, when the researcher asked, *Which online Business instructor do you find most interesting?* her quick response was, *Interesting in a good way or a bad way?* followed by a good laugh.

Student 2 was a 37 year-old who worked 40+ hours per week, while enrolled in 6 credit hours. He was enrolled in 6 credit hours (2 courses) online and had completed 6 credit hours (2 courses) during the summer. His reason for taking online classes was because he moved to another city (approximately 50 miles away) and that he did not want to commute to campus. He did mention that he was willing to come to campus for additional help - *I'd come in and she'd help show me something on her lunch time, you know, I don't know how many times, you know, went out of her way to help me, make sure I understood the paper.* He also reported that his reason for taking the current online courses was to meet degree requirements. He was married and had children. He indicated during his interview that his computer skills level was proficient for software related knowledge. He mentioned that his current employer allowed him to work on classes during slower times, and that was one of the key reasons he was able to balance work, family, and classes.

Student 3 was a 25 year-old who worked 40 hours per week at a local financial institution, where she enjoyed the work, while being enrolled in 6 credit hours (2 courses) online. She mentioned taking some college courses a few years ago. She stated that her reason for taking online classes was because, *they dropped the night class…so I didn't really have much of an option…unless I took it during the day and that didn't work for me so I said well, I'll give it a shot this time.* Furthermore, the stated that, *I think it would be easier for me to be in the classroom.* She described her computer skill level as fairly knowledgeable.

Student 4 was a 50 year-old who worked 40 hours per week in a local business, while being enrolled in 6 credit hours (2 courses) online. The Fall 2010 was her first semester and she mentioned that she would be taking two more online in the spring. She described the reason for taking online classes was because she was an older student and her family schedule kept her

busy. She was able to spend some time on the weekend and in the evening to work on the online classes. She reported that her reason for taking the current online courses was because her advisor had suggested them. The courses were not specifically required for her degree, but would count as elective hours. She was not married, but had children, which were in high school. She reported her computer skills. *When I started…I hadn't used the computer at all before, very little, and I feel like I'm very comfortable with this technology now and can use the computer pretty easily. I've come a long way.*

Student 5 was a 19 year-old who worked 30 hours per week at a local financial institution, while enrolled in 13 credit hours. She indicated that the classes she was enrolled were relevant to her specific duties where she was employed. She was enrolled in 6 credit hours (2 courses) online and 7 credit hours (3 courses) face-to-face on campus and had taken one course during the summer. She noted that her reason for taking online classes was that they were not offered face-to-face in the Fall semester, and the current online courses were based on recommendations from her advisor. She was single and had no children, but was in a serious relationship with her boyfriend. She described her personal life as being, *I'm up in the mornings, go to work, go home, do homework. I don't have as much of a social life so it's a lot easier to get it done.* She indicated during her interview that her computer skill level was higher than average.

Student 6 was a 29 year-old who worked at home, while enrolled in 10 credit hours (5 courses) online. She indicated that she had taken at least one course during the summer, but did not provide specific detail. Her reasons for taking online classes were that she was a, *stay-at-home mom and did home daycare and so it gave me the opportunity to be able to work on my classes on my schedule and so that's why I chose to do online for all of my classes.* Furthermore,

she stated that, *I had been wanting to go back to school for a while and just haven't had the opportunity and online courses made it to where it worked out this time. I was able to return.* She noted that the courses were degree requirements. Her computer skill was described as familiarity with computers for work for several years.

Student 7 was a 41 year-old who described herself as a full-time mother and employed full-time outside the home, while being enrolled in 12 credit hours (4 courses) online. Her answers were well thought-out and she said that she took the courses and her schooling seriously. She indicated that she had taken one course during the summer. She identified the reason for taking online courses as being able to fit them into her schedule. She noted that the courses she was enrolled in were degree requirements. She was married with children. She described her computer skill as above average.

Student 8 was a 37 year-old who worked 40 hours per week, while being enrolled in 6 credit hours (2 courses) online. He indicated that he had taken one course during the summer. He identified the reason for taking online courses were to fit his schedule of family, kids, and job. He noted that the courses he was enrolled were for self-improvement and was using the opportunity to change develop skills for finding a different job. He also mentioned that he received tuition reimbursement for the classes, so he felt that it was free education. He was married with grade school aged children. He described his computer skill as above average.

Student 9 was a 22 year-old who worked 40 hours per week, while being enrolled in 15 credit hours (6 courses) online. He said that these courses were his first college courses. He noted that the courses he was enrolled in were part of the degree requirements. He was single with no children and mentioned that he was living with his parents to save money. After the interview and closing remarks, he mentioned that he was only able to afford to go to college

because of his parents and they were very supportive of the online option. He described his computer skill as much improved, as well as his keyboarding speed.

Student 10 was a 29 year-old who worked 40 hours per week, while being enrolled in 6 credit hours (2 courses) online. She indicated that these courses were her first college courses at the research site, but also mentioned working on a degree at a four-year university. She identified the reason for taking online courses was to fit her schedule. She noted that the courses for which she was enrolled were going to transfer to the four-year university. She was married with young children. She was quite easy to speak with and her answers were somewhat more developed than some of the other interviewees. She described her computer skill as very experienced in both hardware and software.

Student 11 was a 38 year-old who worked an unspecified number of hours per week, while being enrolled in 6 credit hours (2 courses) online. She indicated that she had completed one course during the summer. She identified the reason for taking online courses was because of high gas costs associated with driving to the college. She lived approximately 25 miles from campus. She noted that the courses for which she was enrolled were for self-improvement. She was single with no children. She described her computer skill as average. The researcher had to reschedule the interview for a later date because she had forgotten about it. She indicated at the time of rescheduling that her online classes were more intensive than she expected, and thus required more time to complete the work.

Student 12 was a 57 year-old who worked 40 hours per week, while being enrolled in 3 credit hours (1 course) online. She did not indicate whether she had completed courses during the summer. She identified the reason for taking online courses was because of family, medical,

and out-of-state residence. When asked, *How much time do you spend in an average week on activities related to this class?* she responded,

> Because I am fifty-seven and…it's been a long time since I've taken college classes. I probably spend more than your average person. I can spend anywhere from two to ten hours on a chapter, just reading and trying to work out the problem, and I think that it's getting easier. But in the beginning because…and I don't want to say age…but I think if you're out of practice and doing it, it takes you a while to get back into practice.

She noted that the courses she was enrolled were related to her work. She was single with grown children, but did mention that her family was still in her life. She described her computer skill as average.

Student 13 was a 46 year-old who worked 40 hours per week, while being enrolled in 9 credit hours (3 courses) online. She indicated that she had completed an online course before, but it was several years ago. She identified the reason for taking online courses was to fit her schedule. She noted that the courses for which she was enrolled were for self-improvement. She said, *I want to eventually move up the ladder and a college degree would help me do that.* She sounded self-motivated and future-oriented. She was married with teenage children. She also indicated that between working full-time and parenting two teenage children she did not have much free time. She described her computer skill as advanced (in software).

Student 14 was a 48 year-old who worked 40 hours per week, while being enrolled in 6 credit hours (2 courses) online. She did not indicate that she had completed an online course before. She identified the reason for taking online courses was to fit her schedule, which included family and work. She noted that the courses for which she was enrolled were for self-improvement and degree requirements. During the interview she spoke with confidence and was

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able to articulate her responses succinctly. She was married with children. She described her computer skill as intermediate.

Student 15 was a 27 year-old who worked 40 hours per week, while being enrolled in 12 credit hours (4 courses) online. He was enrolled in one course during the previous summer. He identified the reason for taking online courses was to fit his schedule between his family and work. He noted that the courses for which he was enrolled were degree requirements. He was married with children, and his wife was pregnant with another child. He described his computer skill as average.

Student 16 was a 34 year-old who worked 40 hours per week, while being enrolled in 12 credit hours (4 courses) online. She was enrolled in at least one course during the previous summer. She identified the reason for taking online courses as being because she lived out of town and did not want to travel. Furthermore, she stated that the courses for which she was enrolled were for self-improvement, *I actually have my own little business, a massage business, and I was taking business classes and just so I could learn a little bit more of how to manage business and do your books, keep track of all your business finances.* She was married with young children. She described her computer skill level as good.

Student 17 was a 36 year-old who worked 40 hours per week, while being enrolled in 9 credit hours (3 courses) online. She was not enrolled in any courses during the previous summer. She identified the reason for taking online courses was to fit her schedule. She noted that the courses for which she was enrolled were for self-improvement and degree requirements. She was married with three children of her own and she was also a step-mother of six other children. She described her computer skill as average.

Student 18 was a 24 year-old who did not work, while being enrolled in 15 credit hours (5 courses). She was enrolled in 9 credit hours (3 courses) online and 6 credit hours (2 courses) face-to-face on campus and had taken one course during the summer. She identified the reason for taking online courses as being to fit her schedule. She noted that the courses for which she was enrolled were degree requirements. She was single with children. She described her computer skill as above average.

Faculty Selection Criteria

These 18 student participants were asked by the researcher to name a business instructor and course that the student perceived to be the most motivational. The researcher compiled a list of these Business instructors and courses and then chose the top three most-named instructors for in-depth interviews. Additionally, these instructors were asked for their course syllabi, course documents, online course content, and LMS elements utilized for the course(s).

Three Business faculty were most nominated by the student interviews as having the most interesting online course(s). These three Business faculty were interviewed, beginning on December 20, 2010, and were completed on December 30, 2010. These interviews were after the Fall 2010 semester had ended but prior to the start of the Spring 2011 semester. Two of the Business faculty interviews were conducted by phone and one in-person.

Faculty Profiles

Instructor 1 was a full-time Business instructor at the college and had taught online courses for 5 years at this college. The instructor taught three online business courses in the Fall 2010 and taught a total of six courses in the Fall 2010. The instructor participated in the institution's committees and as an academic advisor for Business students. The instructor

participated in curricular changes to the business programs and worked with the business advisor boards. Furthermore, the instructor had developed online courses for the college. The instructor had taken over 33 online graduate level courses for degree advancement. The instructor had taught online courses using the ANGEL LMS.

Instructor 2 was a full-time Business instructor at the college and had taught online courses for 10 years at this college. The instructor taught two online business courses in the Fall 2010 and taught a total of seven courses in the Fall 2010. The instructor participated in both the institution's committees and as an academic advisor for Business students. The instructor participated in curricular changes to the business programs and on worked with the business advisor boards. Furthermore, the instructor had developed online courses for the college. The instructor had taken one online graduate level course within the last three years for self-improvement in the field of business. The online course had used BlackBoard as the LMS in the course. Beyond the course taken, which used BlackBoard the instructor had taught online courses using the ANGEL LMS and WebCT.

Instructor 3 was a full-time Business instructor at the college and had taught online courses for 3 years at this college. The instructor taught one online business courses in the Fall 2010 and taught a total of five courses in the Fall 2010. The instructor participated in both the institution's committees and as an academic advisor for Business students. Furthermore, the instructor had developed online courses for the college. The instructor had taught online courses using the ANGEL LMS.

Exemplary Course Selection Criteria

The 18 student participants were asked by the researcher to name a business instructor and course that the student perceived to be the most motivational. The researcher compiled lists of these Business instructors and courses. From these lists, the top three most-named instructor's courses and the top three most-name courses were selected for the exemplary course document elements analysis. Six courses were selected: the three courses of the top three most-named instructors that the students were enrolled and three courses of the top three most-named courses.

Six courses we identified as exemplary courses as a result of the selection process. The six exemplary courses were accessible to the researcher, which began in the Spring 2011.   The researcher has access to the course template for each course. The course template is the course "shell" as the instructor and students started the Fall 2010 semester. This means the researcher had access to a copy of the course and could not view correspondence, announcements from the instructor, or other information and elements of the courses that may have been added after the course started.   The courses were access and analyzed consecutively. For each course, all course elements were screen captured and copied into a Word document for later viewing.

Trustworthiness of the Research

Lincoln & Guba (1985) described the trustworthiness of qualitative research as resulting in findings that are "worthy of paying attention to" (p. 290). In order to ensure trustworthiness of the research, the researcher applied the four tests that Lincoln and Guba (1985) identified: credibility, transferability, dependability, and confirmability.

Dependability

Qualitative research, by its very nature, cannot assume that another researcher will follow the same steps described to arrive at the same findings, since it is the uniqueness of the participants and the findings that are valuable. In this study, the researcher used the case study protocol and interview protocols to overcome these weaknesses. A case study protocol was developed to provide detailed documentation of how this study intended to answer the research questions, which was provided in the Data Collection and Analysis Methods. Further, interview protocols were developed to increase thoroughness, truthfulness, and ethical consideration (see Appendices D and E). All interviews and course documents were transcribed into Microsoft Word, and then Google Docs was used in the coding process, while an Excel spreadsheet was used for interpretation and record-keeping purposes.

Credibility

Lincoln and Guba (1985) proposed that for a study to be credible there must be confidence in the "true value," "applicability," "consistency," and "neutrality" of the findings (p. 296). In this study, the researcher took several steps to address the issue of credibility. Semi-structured interviews were conducted with students and instructors of motivational courses. These Business courses were viewed and screen shots of the LMS, documents, modules and assignments were collected. The researcher then checked with the individuals on the accuracy of the data that was collected. Triangulation of the data sources—interviews and documents, should prove efficient and strengthen possible weaknesses associated with one collection method.

Transferability

This study followed the analytic generalizability, whereas the findings were generalized to the Keller ARCS motivational model. Lincoln and Guba (1985) suggested that the key to transferability of a study are thorough descriptions of the participants, procedures, setting, etc. Further, "one will need to know about both sending and receiving contents…transferability inferences cannot be made by an investigator who knows only the sending context" (Lincoln & Guba, 1985, p. 297). This study included detailed descriptions, the "paper trail," to allow future researchers to know the sending contexts. This exploratory case study focuses on the student perceptions of motivational aspects of online courses using the Keller ARCS Motivational model. One method to provide additional overall trustworthiness of the research and provide insight into the transferability of the study is through future research. An ethnographic study in which a student is tracked through the course could provide the additional insight into the transferability of this study.

Confirmability

Lincoln and Guba (1985) asserted that confirmability may apply three tactics: audit, triangulation, and keeping a reflective journal. This study used multiple sources of evidence (documents and semi-structured interviews) to answer the three research questions. The interviewed participants were each provided an opportunity to review the interview transcript for accuracy and correction. Yin (2008) stated that the chain of evidence must, "move from one part of the case study process to another, with clean cross-referencing to methodological procedures and to the resulting evidence" (p. 123). The data analysis is provided in a manner to allow the reader to "follow" the chain of evidence.

Table 3.5 Trustworthiness of the Research. Adapted from Yin (2003)

Tests	Case Study Tactics	Phase of Research in Which Tactic Occurs
Confirmability	1) Use multiple sources of evidence 2) establish chain of evidence 3) have key informants review case study	• Data collection: ○ Interviews with the 3 students per class (6 classes) and Business Professors

Credibility	1) Pattern-matching
	
	2) Explanation-building
		• Data analysis:
		  ○ Interviews with the 3 students per class (6 classes) and Business Professors
		• Triangulation – multiple sources of data:
		  ○ Field notes
		  ○ Interviews

Transferability	1) Use theory in single-case studies	• Consistency and constancy in data collection • Triangulation – multiple sources of data: field notes and interviews. • Peer debriefing, which is a process to reduce bias and enhance the credibility or validity of qualitative research (Creswell, 1998)
Dependability	1) Use case study protocol	• Thoroughness, professionalism, ethical consideration, truthfulness and interview protocols

Ethical Considerations

The primary ethical considerations in this study were to "focus on establishing safeguards that will protect the rights of participants and include informed consent, protecting participants from harm, and ensuring confidentiality" (Bloomberg & Volpe, 2008). Additionally, the ethical standards of the Institutional Review Board (IRB) at Kansas State University were upheld through each phase of the research study.

Participation in the study was completely voluntary, and participants had the option to withdraw at any time during the study. The researcher took reasonable precautions to maintain confidentiality and anonymity for the students in the study: (1) participation was strictly

voluntary (2) digital audio recordings were transferred from the audio recorder into an encrypted storage container. The encryption software Truecrypt was used to encrypt the data. (3) The digital audio recording device was wiped to remove any trace of the recording. The wipe software used was Eraser, which performed a whole disk wipe using DoD 5220.22-M standards. (4) Transcripts were maintained in digital form in an encrypted storage container. (5) All audio files were destroyed after individual transcripts were verified by the participants. (6) All individual transcripts will be destroyed upon completion of the successful defense of the dissertation, and (7) specific statements that may identify a student and/or class were removed or changed.

Each participant was assured that her/his statements would be confidential. One important ethical consideration was that the student participants were attending the institution where the researcher was employed at the time of the study. As a result, anonymity was essential in data transcription and reporting. Furthermore, there were ethical considerations in the confidentiality of student statements, should a student be dissatisfied with a teaching method or approach that the instructor used. While none of the participants were students being educated by the researcher during the Fall 2010 semester, the students were aware that they were talking to a professional employed at the institution. This was explained thoroughly in the informed consent letter (See Appendix A - Participation Letter of Consent) and verbally before the interview(s) began.

Chapter Summary

The research questions were stated as, "how" questions, thus lending themselves to a qualitative research approach. A rationale was presented for an exploratory case study approach, based on the lack of dissertations on Keller ARCS in community college online courses. Data collection and analysis methods were provided, using Yin's approach to the case study and Miles & Huberman's data analysis methods. The research setting, location, and number of online courses, both college-wide and in the Business department, were explained. The participants, both students and instructors of online courses, were described. Methods for increasing the trustworthiness of the research were presented for reliability, internal validity, external validity and construct validity. Finally, ethical considerations in conducting research, in general, and at the research site, in particular, were explained.

CHAPTER 4 - DATA ANALYSIS

Introduction

The purpose of this case study was to explore the online learning environment through the experiences of the individual learner and to gain more insight into the elements of Business online courses. This chapter presents the results of the study, including alignment of the data with Keller ARCS themes and components. This study explored the following research questions:

1. How do undergraduate first-year Business students perceive online course elements as being motivational?

2. How do the online courses that Business students perceive as being motivational use the Keller ARCS Motivational Model?

3. How do exemplary online Business faculty use the Keller ARCS Motivational Model in online instruction?

Research Question 1

This question asked, "How do undergraduate first-year Business students perceive online course elements as being motivational?" A total of 474 individual units were found for the Research Question 1 from the student interviews. The student interviews indicated that a total of 11 course elements were found to be perceived as being motivational. From the total of 474 units, the course elements with the most prominent number of units: 146 units related to "Discussion," 69 units were related to "Course Mail," 62 units were related to "Gradebook," and 61 units were related to the "Course as a whole."

The course elements were used as a logical separator (a way to organize) for the analysis. Pattern codes were developed during the interview process and those codes were "tried out" on subsequent interviews to see if they "fit" (Miles & Huberman, 1994, p. 70). Miles & Huberman (1994) stated that "next, the most promising codes to emerge from this exercise are written up" (p. 70), then these pattern codes were checked in the next interview, and so on. See Table 4.1 for a complete list of course elements and the frequency for which a unit referred to it.

Table 4.1 Student Motivational Course Elements

Course Element	Frequency
Discussion	146
Course Mail	69
Gradebook	62
Course as a whole	61
Assessment	30
Dropbox	29
Folder	27
Page	17
Grades (Summary)	16
ANGEL	10
Announcement	7
Total	**474**

The "Discussion" course element had 146 total units, from which 36 units were unique. The units with the most prominent number of comments from the student interview: 22 interview comments were coded as "Required replies," 20 interview comments were coded as "Student-to-student conversation," 16 interview comments were coded as "Opinion based," 11 interview comments were coded as "Understanding developed from other students," and 10 interview comments were coded as "Required initial postings." See Appendix G for complete list of units

for the course element "Discussion" and the frequency each code unit was referred from the interview comments.

From 144 units, a total of nine categories were found to emerge: 30 units were found for the category of "Feedback," 29 units were found for category "Access," 23 units were found for category "Reminders," and 20 units were found for category "Comprehension." See Table 4.2 for the complete list of categories and number of units used to develop the category.

Table 4.2 Student Motivation Categories

Categories / Units	Frequency
Feedback	**30**
General comments from Instructor	14
Explain errors in detail	11
Supportive	5
Access	**29**
Grade Access	10
Preview work to complete	8
View material again	5
Hide past due Modules	3
Instructor	2
Allow students to break up time required per setting	1
Reminders	**23**
Work graded	11
Past due work	5
Future work	3
Introduction to the content	1
Instructor - update college events	1
Instructor - update personal life	1
Instructor should explain how to use the course element	1
Comprehension	**20**
Understanding developed from other students	11
Understand textbook reading	5
Understand content	4
Schedule	**13**
Semester view	6
Flexible	2
Show on Module folder	2
Page	2
Schedule (detailed work to complete located in one place)	1
Due Dates	**10**
Weekly Schedule	7
Semester to complete work	2
Due date	1
Course Access	**7**
Work ahead	6
Access	1
Miscellaneous	**7**
More information than book	2
Useful for more personal type of question/answer	1
Privacy and solitude	1
Course elements are only "tools" to allow students to do the work	1
Additional resources available	1
Issues with course elements are fixed	1
Optional Work	**5**
Extra credit—optional	3
Extra credit	2
Grand Total	**144**

From the nine categories, three themes were found to emerge: "Asynchronous Learning Options" from two categories comprised of 50 total units; "Course Element Availability" from four categories of 48 total units; and "Track Course Progress" from three categories of 46 total units.

Seven Themes were found to emerge, four from categories and three directly from the data. The first four Themes were: 116 units were found for theme "Course Communication," 83 units for theme "Course Requirements," 71 units were found for theme "Grades," and 60 units were found for theme "Course Organization." See Table 4.3 for the Themes. In addition to the four Themes that were created from categories, threeThemes were found to emerge from the units, without categories first developed as an intermediary step. Miles & Huberman's (1994) "pattern coding" approach was used for three purposes: (1) it reduces large amounts of data into a smaller number of analytic units (2) it allows for more focused fieldwork and (3) common themes to surface. Because of the nature of "pattern coding" some themes may emerge from the units. The categories, when present, help to elucidate elements of each theme.

Table 4.3 Student Motivation Themes With Categories

Themes / Categories	Frequency
Course Communication	**116**
Course Requirements	**83**
Grades	**71**
Course Organization	**60**
Asynchronous Learning Options	**50**
Comprehension	20
Feedback	30
Course Element Availability	**48**
Access	29
Course Access	7
Miscellaneous	7
Optional work	5
Track Course Progress	**46**
Due dates	10
Reminders	23
Schedule	13
Grand Total	**474**

"Course Communication" was found to be relevant to student motivation. It was found that when students were asked how course elements could be motivational, the theme of "Course Communication" arose with the greatest number of units. "Student-to-student conversation" was found to be a key aspect of the "Course Communication" theme. Student 6 recounted that:

Sometimes they're interesting or it's kind of funny to see what people come back and reply to yours or other classmate's posts but at the same time to me.

Student 9 found the "Student-to-student conversation" to be:

You know, everyone learns different things so it's interesting to hear what people have to say about what they learned and how they might use that in life so that made it interesting.

Student 7 commented:

Seeing other people's ideas because if they have a question they ask then you post your thought about that idea or that question and then you get feedback because someone posts against yours because let's say they agree or disagree and tell you why and then you have the opportunity to post against somebody else's, say agree or disagree and sometimes they can go two or three weeks.

Furthermore, Student 2 remarked about the change of relationship because of the "Student-to-student conversation:"

I think it comes back to the information and the friendship that I have with my fellow students.

Another key aspect of the theme "Course Communication" was that the course element allowed students to express their opinions; 19 units were found as "Opinion based." Student 16 mentioned that while opinions were asked, the course elements were used in a way that allowed students to reflect on their personal background on the topic:

It basically just asks for you, your opinion on different subjects and how they relate in life.

Student 1 stated that:

I think, actually, the discussions are pretty interesting, because it's all our opinions.

Student 6 described the "Opinion-based" communication:

...talking to the other students about how they see the chapter versus how you see it, it's

sometimes interesting to kind of see it from somebody else's point-of-view and it's always

interesting getting to know new people that way.

There were 14 units on "Appear caring" in the "Course Communication" theme. Student 10 explained that general communication sent to the whole class appeared caring:

She was the one that would post, you know, "you guys only have three assignments left or

I know that you're getting tired but we're almost there," and stuff like that so I think that

was very nice.

Student 12 commented that individualized communication appeared caring:

If we did good she'll give us, not like a star, but like a pat on the back, a verbal pat on the

back which means a lot. Really means a lot.

Student 3 reminded us that not all classes "Appear caring:"

I feel encouragement, I feel encouraged, like she's encouraging us to, and she's helping

us out. It makes me feel good to get it from her because I know she cares. Just before,

with the instructors, I never once heard anything from them before...With her I know she

cares, she's wanting to help out and I appreciate it cause it's probably the most

motivation for myself.

"Course Requirements," with 83 units was another theme found for questions 1. Students as a whole described that specific expectations about the course elements were motivational. Both "Required replies" (22 units) and "Required initial postings" (10 units) refer to the "Discussion Course" element. Student 6 described the required replies as:

You have to reply to at least one or two of your classmate's other post with more than

just one or two words. You kind of have to have a conversation with them.

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Student 1 commented on the "Required Replies" and how it was interesting to have another student comment on the initial posting:

'Cause, like, when you're reading other peoples' responses…you'll respond to theirs and then sometimes they'll respond back to you if they feel like it, and hearing what they have to say about what you wrote. It's kind of interesting.

Student 8 had the following observation about the required initial postings that was involved in the Discussions:

You have an initial response to whatever the discussion is and just off the top of your head you're supposed to respond to that.

Student 11 explained how the initial postings were used in the class:

Discussions. The instructor usually [asks] a question that we respond to or like a newspaper article that we read or generally online you get a topic.

Next, there were 71 units on "Grades," with all 18 students interviewed mentioned the importance of grades. "Grades" in and of itself were mentioned as motivational, and the course elements also had some defining characteristics that were found to be motivational to online students. Thirty-one units were assigned to "Grades" that were "Up-to-date." Student 5 recounted:

Like showing my grades, she kept up with it so I could check it almost daily and it would be updated. I think she grades every night because every time I get on there the next day it's graded, so I think she usually does it, I don't know. Well it showed my grade and every time you hit refresh it either gets better or worse and, you know, if it gets worse you're like, yikes, I don't know.

Student 18 stated her expectations for turnaround time for grading:

I wanted to know what I got pretty much immediately, [so] I knew that I was doing

everything how I should have.

While the need for "Up-to-date" grades was the most noted, 13 units were found for "Track Course Progress." Students indicated during the interviews that the gradebook was used as a way to track grade progress in the course and ensure the student was on the right track. Student 7 provided the following statement about how grades were used in this fashion:

I like to keep track of my grade to make sure I haven't missed anything. I realized just

recently that I didn't submit a paper and I got a zero and I'm like "what," so I went back

and I looked at all my stuff, I was like, "oh, yep, I didn't submit that," so I know that was

my fault so that's good because if I wouldn't have seen that and would've at the end of

the semester all of a sudden got a B or a C or something, I would've been like, "what," I

turned everything in but that showed me, okay no you didn't turn everything in, that kind

of stuff, know what I mean.

Student 5 indicated that she liked the ability to view past graded assignments and future assignments:

I like to look in the report one because I can see what I've done compared to what I

haven't done yet.

A feature that is unique to ANGEL was the ability for students to compare their grade to the course average. Twelve units were found for "Compare to peers." Student 2 recounted the usefulness of this feature:

I try to set a goal to be higher than average and by seeing what the class average is and

trying to stay above it. It's kind of like the motivation for me to, you know, do better. I

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push myself even though I do it by myself but it's kind of nice to have that feature there to

help push me to make me want to keep my grades up to where I'm always above average.

I usually feel good cause I'm usually above the course average but, I mean, there's been

times that I haven't been. I've been right at the course average and that kind of lit a fire

under my rear. I say okay, I got to do better on this next chapter to get my grades back

up above, you know, the class, I try to be above and beyond what I have to be.

There were 60 units on the "Course Organization" theme: 21 units were found as "Setup." The comments from students that were coded as "Setup" often surrounded the very nature of how the course was organized by week—and just as importantly that all the information for that week was in one location. Student 16 defined how the course was "chunked" by the comment:

It's split up into weeks and each week we do a different chapter.

Student 18 further defined the specific setup found in her course:

I liked how she had it all broken down into Unit 1; Chapter 1, 2, and 3. Under those

chapters you had all your assignments, so it was really nice that it was organized and

know exactly which one you had to click on next and go from there.

During the student interviews for the "Course Organization" theme, 12 units were found for "Repetitive course element each week." The repetitive course elements found from the student interviews were different for each student, and that did not change the underlying usefulness of repetition throughout the course, so long as the course elements were used each week. Student 12 recalled some of the course elements that were repeated in her course:

So every week we get a grade on the quiz, the discussion, and the dropbox.

Next, there were two categories ("Comprehension" – 30 units and "Feedback" – 20 units) that were used to develop the theme "Asynchronous Learning Options." 14 units were assigned to "General comments from instructor" in the feedback category. Student 8 found the general comments to be:

...like you would send your project in and she would send it back to you with responses added on and it would tell you what your grade was and it was nice knowing, instead of just saying, "oh, well you got four hundred points out of five hundred," you knew how well you got the points you got.

There were 11 units on "Understanding developed from other students" in the "Comprehension" category of the "Asynchronous Learning Options" theme. Student 14 explained that the understanding developed from other students was:

Just to get a point-of-view like sometimes there's things that you might have missed in the class and somebody may bring up something that you haven't thought of or something that you just totally overlooked in the chapter reading so it kind of makes us feel like you're in an actual classroom.

Student 12 stated:

I'd just see how someone else interprets or how someone else answered the question is very, it helps me a lot... there were some people in my class that I especially looked at because they were so eloquent and I just learned from their responses.

There were 11 units on "explain errors in detail" in the "Feedback" category of the "Asynchronous Learning Options" theme. Student 2 reported that the detailed explanations were:

I go back and I always look to see how I did and she always tells me, you know, think

about this next time on this, you know, something I may not have thought about or

remembered or whatever, but it's if you're done with that one then throw it away. I still

feel like she always goes back and tries to review the chapter a little bit to review a key

point that we may have missed.

Student 14 stated:

If your grade was under one hundred percent, you know maybe it would be a ninety-

seven point five, and she would actually tell you why.

There were 48 units on the "Course Element Availability" theme, which were developed from four categories: 29 units were found as "Access," 7 units were found as "Course Access," 7 units were found as "Miscellaneous," and 5 units were found as "Optional work." There were 10 units on "Grade Access" in the "Access" category of the "Course Element Availability" theme. Student 2 described "Grade Access":

I do like that feature of being able to check my grade right then.

Student 16 commented:

I like the fact that you can see your grades all the time.

Next, "Preview work to complete" found 8 units in the Access category of the "Course Element Availability" theme. The ability to have access to view the course elements were indicated by six of the 18 student interviews. Student 15 described her account of the ability to preview:

It's nice to click on the lessons and basically scroll down through what has to be done

and most of my classes had like a "Start Here" folder at the very beginning that you

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could click on and you could go through and look at when the course schedule of like

when due dates are and stuff.

Student 8 described the ability to preview the course as a way of planning, or balancing class and

personal life:

You can almost look ahead and see what's coming so if you know if you have a big week

coming.

There were 46 units on the "Track Course Progress" theme, from three categories: 23

units were found as category "Reminders," 13 units were found as category "Schedule," and 10

units were found as category "Due Dates." The comments from students surrounded the idea

that students wanted reminded about the schedule and upcoming due dates, and any work that a

student might have forgotten. The code of "Work graded" were found for 11 units. Student 7

recalled:

She usually sends us an e-mail because we have to turn everything in on Thursday and

she sends us an e-mail within a couple of days or the discussion letter, the thing that we

had to write, she usually does it within a couple of days, and usually when I'm on again

on Saturday or Sunday the grade is posted in there.

Student 12 stated:

She'll say, "I've graded your paper, blah, blah, blah, blah, here's some hints for next

chapter," and then she'll go on and give the stuff. I think there was one chapter that it

was quite difficult and she gave us some hints to help us work out certain things in the

homework assignment.

Summary

Research Question 1 posed the question, "How Do Undergraduate First-Year Business Students Perceive Online Course Elements as Being Motivational?" This study interviewed 18 students to provide insight that helped provide data for Question 1. These 18 students were enrolled in a first-year for-credit online class during the Fall 2010 semester at a midwestern community college. From the interview data a total of seven themes were found to emerge during the coding process. The themes that emerged were: 116 units were found for theme "Course Communication," 83 units for theme "Course Requirements," 71 units were found for theme "Grades," 60 units were found for theme "Course Organization," 50 units were found for the theme "Learning Online," 48 units were found for the theme "Course Element Availability," and 46 units were found for the theme "Track Course Progress."

The significant findings found from the themes were: The "Course Communication" theme was found to include student relationships in online discussions and caring and quick responses from instructors. The "Course Requirements" theme was found to include the use of discussions to develop the online classroom and the specific requirements for each course element. "Grades" theme was found to include grades being up-to-date and that the gradebook showed all potential graded assignments for the entire course. Additionally, students wanted to be able to compare their grades to their peers. The "Course Organization" theme was found to center around the layout and design of the course and repetitive use of course elements. The "Asynchronous Learning Options" theme was found to include purposeful uses of discussions to provide learning opportunities and that instructors provided detailed feedback and appeared caring throughout the communication. The "Course Element Availability" theme was found to include 24-7 student access to grades and the ability to preview assignments in the gradebook.

The "Track Course Progress" theme was found to include reminders of due dates and graded activities.

Research Question 2

Research question two asked, "How do the online courses that Business students Perceive as being motivational use the Keller ARCS motivational model?" This study focused on online student motivation at a community college using the Keller ARCS Motivation Model as the theoretical framework. The ARCS model of motivation has four categories that are required to achieve and sustain student motivation: attention, relevance, confidence, and satisfaction. Keller (2006) states that the ARCS model of motivational design consists of a set of categories of motivational concepts and strategies that are derived from a synthesis of the research on human motivation combined with a review of successful motivational practices. The student interviews were analyzed using the Keller ARCS Motivational Model to determine how online business courses were found to use the Model. It is important to note that at the time of the study none of the online business courses were required to use any motivational models.

The Keller ARCS Motivational Model was studied because it was a well-regarded and fully-developed motivational model. The ARCS components were used as the themes for Research Question 2 (attention, relevance, confidence, satisfaction). The ARCS sub-components that made up each theme were used to code the student interviews. The sub-components listed in Table 4.4 were part of the Keller ARCS Motivational Model and not created/developed by this researcher.

Table 4.4 Keller ARCS Motivational Model Components

Attention
Cognitive conflict
Concreteness
Humor
Inquiry
Participation
Variability
Relevance
Choice
Experience
Future
Modeling
Needs Matching
Present Worth
Confidence
Attributions
Difficulty
Expectation
Learning Requirements
Self Confidence
Satisfaction
Avoiding negative consequences
Natural Consequences
Positive Outcomes
Scheduling Reinforcements
Unexpected Rewards

From the student interviews, a total of 100 units were found for Research Question 2. The student interviews indicated that each of the four ARCS Themes and all 22 Components, shown in Table 4.7, were found in the online business courses. The Components were used as "units" and those with the most prominent number of comments from the student interview: 15 interview comments were coded as "Scheduling Reinforcement," 10 interview comments were coded as "Difficulty," 9 interview comments were coded as "Variability," 8 interview comments

were coded as "Self Confidence," and 8 interview comments were coded as "Choice." See Table 4.5 for the complete list of the Components used as units and the frequency with which each unit was referred from the interview comments.

Table 4.5 Keller ARCS Components

Units	Frequency
Scheduling Reinforcements	15
Difficulty	10
Variability	9
Self Confidence	8
Choice	8
Present Worth	6
Natural Consequences	5
Positive Outcomes	5
Concreteness	4
Experience	4
Participation	4
Unexpected Rewards	4
Future	3
Learning Requirements	3
Modeling	3
Avoiding Negative Consequences	2
Expectation	2
Attributions	1
Cognitive Conflict	1
Humor	1
Inquiry	1
Needs Matching	1
	100

The components in the Keller ARCS Motivational Model were then reorganized by frequency to show each ARCS Theme and the Components that refer to it. Furthermore, the data analysis will be discussed in the following order: Satisfaction, Relevance, Confidence, and Attention. See Table 4.6 for the ARCS Themes and each Component (Units).

Table 4.6 Keller ARCS Theme Components

ARCS Theme Components	Frequency
Satisfaction	**31**
Scheduling Reinforcements	15
Natural Consequences	5
Positive Outcomes	5
Unexpected Rewards	4
Avoiding negative consequences	2
Relevance	**25**
Choice	8
Present Worth	6
Experience	4
Future	3
Modeling	3
Needs Matching	1
Confidence	**24**
Difficulty	10
Self Confidence	8
Learning Requirements	3
Expectation	2
Attributions	1
Attention	**20**
Variability	9
Concreteness	4
Participation	4
Humor	1
Cognitive conflict	1
Inquiry	1

The four Themes found to emerge from the ARCS Components were: 31 units were found for theme "Satisfaction," 25 units for theme "Relevance," 24 units were found for theme "Confidence," and 20 units were found for theme "Attention." See Table 4.7 for the Themes developed and number of units used to develop it.

Table 4.7 Keller ARCS Theme

Themes	Frequency
Satisfaction	31
Relevance	25
Confidence	24
Attention	20
Total	**100**

The ARCS Theme "Satisfaction" was found to be the greatest number of units, as indicated during the student interviews. "Scheduling Reinforcements" was found to be a key aspect of the "Satisfaction" theme. The "Satisfaction," "Scheduling Reinforcements" described in the Keller ARCS Motivational Model referred to the opportunities of reinforcements, and how those opportunities were organized for learning. Student 8 recounted that:

Most of the time it was, we had like pre-work to do. You could either choose to do it or

not do it. You could read the examples and go through the book on how to do it and she

would give, there in the book, she would give you a list of problems that you could do

before you actually took the test.

Student 7 described the opportunities for reinforcement:

… it's an endless amount. You can go in and just keep working until you get it and I

really like that because I'm not a [course subject] person… you do it until you

understand what you're doing. Once you know what you're doing then you do your

assignment, you give it back to her, then you take your exam.

Student 6 indicated that reinforcement was not necessarily required:

I've pretty much understand everything in the chapter to where I don't do the practice

problems I just go straight to the exercise problems that are required because I feel

comfortable enough without doing the practice problems. I get the exercises done so I

personally haven't done any of them yet but that doesn't mean I won't in the future.

Next, "Relevance," with 25 units was an ARCS Theme found for Question 2: eight units were found as "Choice." The unit coded as "Choice" referred to allowing students to choose elements of their educational activities. Student 6 described the "choice" as:

Say you have Chapter 1 and it is about like say money laundering…then you might go

into your discussion post and…it might give you like three choices to choose from but all

of them have to do with money laundering.

Student 2 stated that the "choice" was more in whether to use certain course elements:

If I just read the book, I don't need to read the flashcards again if it has the same

material. It might not cover certain areas that, it's hard for people to pass, you know,

like you can in a classroom. Optional. We don't have to read them.

Student 8 provided another example:

She'll give you ten topics to pick from and you can take the topic in ten different

directions, so everybody comes from a different aspect.

There were 24 units on the "Confidence" theme: 10 units were found as "Difficulty." The comments from students that were coded as "Difficulty" often surrounded the very nature of how the course was organized by difficulty—and how students were able to progress through the course. Student 12 defined the difficulty of her course as a "design" element of the course that the course became progressively more difficult. Student 12 did not define whether the difficulty she described was the course content or whether the course elements were really implemented in a true design of difficulty:

I think it was designed that way but some of the things, as you move on, were harder and

I know personally I had to work harder.

However, Student 17 reported the difficulty was through the "design" of the course:

Every three chapters you would do a review of those three chapters and have to write a

page of what you learned. You would pick an ethics, I believe it was called, and write on

that topic.

Another key aspect of the theme "Confidence" was that the students were allowed to

practice and 8 units were found as building "Self Confidence." Student 16 reflected on how the

practice was offered:

It gives you the option of going, you practice your stuff before you actually do your

homework and as you're practicing it, it tells you automatically the answer and then you

can go in and it gives you steps and it shows you what you did wrong so then you can try

it again until you get it right.

Student 10 found the practice to be:

It kind of was because it definitely would give you a sense of what you were doing wrong

and what you were doing right. It would help you to understand what was going on

before you actually got to the test so I think it was motivational.

The last ARCS Theme found 20 units for "Attention" through the student interviews: 9

units were found as "Variability." Keller ARCS defined the variability as a change in

instruction.

Student 16 commented on how one of the course elements was used:

It varies on the number of questions that are on the test and how long it is.

Summary

Research Question 2 posed the question, "How Do the Online Courses That Business Students Perceive as Being Motivational Use the Keller ARCS Motivational Model?" This study interviewed 18 students to provide insight that helped provide data for Question 2. These 18 students were enrolled in a first-year for-credit online class during the Fall 2010 semester at a midwestern community college. The Keller ARCS Motivational Model was used as the themes for Research Question 2: Attention, Relevance, Confidence, and Satisfaction. The ARCS sub-components that made up each theme were used to code the student interviews. The ARCS Themes that were found: 31 units were found for theme "Satisfaction," 25 units for theme "Relevance," 24 units were found for theme "Confidence," and 20 units were found for theme "Attention."

The significant findings found from the themes were: The "Satisfaction" theme was found to include practice prior to graded activities. The "Relevance" theme was found to include the use of "choices" as a key motivational component. The "Confidence" theme was found to include the progression of the difficulty of the activities and the access to review and practice new material. The "Attention" theme was found to include variability of instruction and course elements.

Research Question 3

Research Question 3 asked, "How do exemplary online Business faculty use the Keller ARCS motivational model in online instruction?" This study sought to understand how exemplary online Business faculty used the Keller ARCS Motivational Model in online instruction. This study identified "exemplary online Business faculty" as those faculty perceived

as being motivational that were most nominated by the students. At the time of the study, none

of the online Business faculty were required to use any motivational models, thus the faculty

interviewed shared their knowledge of how they perceived their current online courses to answer

the interview questions. The interview focused specifically on the Keller ARCS Motivational

Model to answer the research question and because this was the focus the ARCS (attention,

relevance, confidence, satisfaction) were used as the overarching themes, and the components

that made up each theme were used to code the faculty interviews. Unlike the student

interviews, which were asked more open questions, the faculty were asked questions that would

provide detail about how the faculty were using the ARCS model in their online courses (even

though the faculty may not realize that they were inadvertently following the ARCS model). The

Components listed in Table 4.7 were part of the Keller ARCS Motivational Model and not

created/developed by this researcher.

From the faculty interviews, a total of 107 units were found for the Research Question 3.

The faculty interviews indicated that each of the four ARCS Themes and all Components except

"Need Matching," were found in the online business courses. The Components were used as

"units" and those with the most prominent number of comments from the faculty interview: 11

interview comments were coded as "Learning Requirements," 10 interview comments were

coded as "Difficulty," 7 interview comments were coded as "Expectations," 6 interview

comments were coded as "Avoiding Negative Influences," 6 interview comments were coded as

"Present Worth," and 6 interview comments were coded as "Choice." See Table 4.8 for the

complete list of the Components used as units and the frequency for which each unit was referred

from the interview comments.

Table 4.8 Faculty Keller ARCS Components and Frequencies

Units	Frequency
Learning Requirements	11
Difficulty	10
Expectations	7
Avoiding Negative Influences	6
Present Worth	6
Choice	6
Experience	5
Inquiry	5
Positive Outcomes	5
Scheduling Reinforcement	5
Modeling	5
Attributions	5
Natural Consequences	4
Participation	4
Unexpected Rewards	4
Concreteness	4
Variability	4
Cognitive Conflict	3
Future Worth	3
Self-confidence	3
Humor	2
Need Matching	0
Grand Total	**107**

The Components in the Keller ARCS Motivational Model were then reorganized to show each ARCS Theme and the Components that referred to it. See Table 4.9 for the ARCS Themes Components (Units).

Table 4.9 Faculty Keller ARCS Themes with Components (Units) and Frequency

ARCS Themes / Components (Units)	Frequency
Attention	**22**
Inquiry	5
Variability	4
Participation	4
Concreteness	4
Cognitive Conflict	3
Humor	2
Relevance	**25**
Choice	6
Present Worth	6
Modeling	5
Experience	5
Future Worth	3
Need Matching	0
Confidence	**36**
Learning Requirements	11
Difficulty	10
Expectations	7
Attributions	5
Self-confidence	3
Satisfaction	**24**
Avoiding Negative Influences	6
Scheduling Reinforcement	5
Positive Outcomes	5
Unexpected Rewards	4
Natural Consequences	4
Grand Total	**107**

The ARCS Theme "Confidence" was found to have the greatest number of units, as indicated during the faculty interviews. "Learning Requirements" was found to be a key aspect of the "Confidence" theme. Instructor 1 recounted that:

> *When they open up the folder for each chapter, it stated, "In this chapter you will learn*
>
> *to…"and it lists all the things they will learn to do. I give my little pep talk about what is*

really important or what to watch out for "this is going to be hard" or that sort of thing,

things that you are going to do in this chapter.

Instructor 2 supported the notion that students received information about specific

learning requirements in each lesson. Additionally, Instructor 1 identified the syllabus as another

method used to provide learning requirements to the students:

Usually the syllabus contains a summary of all the main concepts that we are going to be

covering in the class. Then in each assignment, there is a list of more specific objectives

for each topic or lesson.

Instructor 3 provided additional insight into how students could use the syllabus to

identify the specific topics that would be covered in the class. Instructor 3 also mentioned that

students could choose not to read the syllabus, thus missing out on this information:

Well, they might use it [syllabus] if they read it, but I mean I tried to set the class up in

the same way that its organized on the syllabus is pretty much the same way it's going to

come across in the class. I think there are like four outcomes…and those four outcomes

just happened to line up with the four unit tests. So, if they read it [syllabus] and were

paying attention…

Another key aspect of the theme "Confidence" was that the course was organized by

activities, which became progressively more difficult throughout the course, and allowed for

success along the way; 11 units were found as "Difficulty." Instructor 3 reflected on how the

difficulty changed during the course:

We start out the semester real easy and we just introduce the class and about three weeks

into the class I give them a timeline. The timeline basically says that as soon as you're

done with Chapter 4 then you need to be working on this section and soon as you're done

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with Chapter 5 you need to be working on this. We kind of start it off nice and easy and

they will ace several things in the beginning and do really well and that kind of sets them

up to think I can really do this and that way you know when we do get to the harder stuff

they don't just go I can't do this, because they've been doing it, its just getting a little

more difficult. I try to do that. I try not to just throw them into deep water and make them

swim.

Instructor 1 described a different situation with online classes. The material may be rather difficult for some students to grasp, even though the content is not meant to be that difficult:

It's built in the order of skill that they will need, so [it] starts off with the first chapter is

basic, that should be the easiest stuff of the whole thing, but for a lot of students it is not.

Instructor 2 recounted that the course was not necessarily set up to be easier at the beginning, but rather the topics may become more difficult for students, depending on the student's ability to grasp the topic itself:

Each topic is different, and I don't think it goes from necessarily from easy to hard. It

just covers different topics. They do build on each other. I don't think it starts out easy.

Next, "Expectations" 7 units were found, which referred to the students developing realistic expectations about the amount of time and effort required to be successful. Instructor 3 explained that the time requirements were given in general terms:

I give them the overall, general, you know, any online class if it's a three hour class it

takes 9 hours of study time. I have that general thing out there in the "Start Here"

folder, but I don't usually mention much after that.

Instructor 2 recounted a similar method for providing the time requirements to students:

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I have a link in there that tells how much time it is going to take each week for you to learn the material and do the assignment. That gives the student the frame of mind of what it going to take. In my e-mails I periodically remind them to set aside time during the week to learn the material and do the assignment.

Instructor 1 stated that:

In the beginning, I send them an email saying "Here is what we are going to do and every week you will read a chapter, do your homework or take a quiz" or whatever, depending on the course. I kind of give them an idea in the beginning the steps they are going to need to take.

The ARCS Theme of "Relevance" was found to have the second greatest number of units, as indicated during the faculty interviews; six units were found for both "Choice" and "Present Worth" and five units were found for both "Modeling" and "Experience." The unit coded as "Choice" referred to allowing students to choose elements of their educational activities. Instructor 2 commented about one limited choice provided to students:

They have to do everything, except in one of the discussions I have given them options of what topic, what question, to answer. I think I am going to expand that in more chapters. Let them pick the questions they want to respond to.

Instructor 1 commented that because the lowest test grade would be dropped, and that could be misinterpreted as a choice (the student could choose to not take a test):

I don't intend that to be a choice so they come in thinking that "I'll skip chapter 10" because I want them to be involved but it gives them a little confidence that if they just totally blow it; there is kind of a life preserver that I can throw to them and I can say

"Oh, it's OK and I'll drop their lowest exam. Don't give up; all is not lost, keep trying you can still make it."

"Present Worth" also was found with six units. The "Present Worth" related to students learning new material to help their current situation. Instructor 1 provided an example:

For example, when we talk about insurance I ask them to find their actual information that they actually could use today. We work on balancing checkbooks, talk about mortgages so all those things I think they can see how it could relate to their present life. In my weekly e-mails we talk about those kinds of things.

Instructor 3 described that the information could likely be applied where the student was working:

I hear that students will actually use that information and take it back to wherever they work. They may change something or make something right. I hope they take it and do stuff about it.

Another aspect of the theme "Relevance" was that the students were provided a model of expectations of class activities and 5 units were found as "Modeling." Instructor 2 reflected on how the modeling was offered:

There are examples throughout their book as well as what their homework assignment should look like. I used to produce a sample for them to look at so that they set it up the same way just with their data and that was very helpful. Other than that, not much else.

Instructor 3 explained:

What I do is I call it a peer review and they post what they have done like three times throughout the semester. They just post whatever they have and I make a deal about, you know we're not here to make fun of anybody's plan or what if they don't have very much

written and you just post it out there for the class to see and that helps other people

because they could maybe you have a really good idea that they want to use and they can

comment and all of that good stuff.

Five units were found for "Experience." The Keller ARCS Model described "Experience" as showing students how prior knowledge will help learn the new material. Instructor 1 commented on one course:

I tell them that they are getting this. Some people find this really hard so I have a

question board because it is easier for you maybe you can help someone who finds it

hard. And I always tell them these will either be the easiest or hardest chapters in the

whole class for you.

Instructor 2 commented on some of the skills that are required for the course, but did not indicate how that is communicated to the students:

You assume that people can figure percentages, add, subtract, multiply, and divide.

The ARCS Theme "Satisfaction" was found to be the third greatest number of units, as indicated during the faculty interviews; six units were found for "Avoiding Negative Consequences" and five units were found for both "Scheduling Reinforcement" and "Positive Outcomes." The unit coded as "Avoiding Negative Consequences" referred to avoiding threats or negative consequences beyond appropriate levels. Instructor 3 recounted that the actual grade was really the only negative consequence:

Well other than the big fat zero that they will get, not really except a few of those peer

review things. I think they just really fall behind because you might get a zero on it, and

that will hurt but in the end what really hurts more is that you didn't get any feedback at

all.

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Instructor 1 further supported the idea that the grades were the only negative

consequence:

> *You got 7 out of the 20 your score is 7 out of 20. That's negative consequences, I guess.*

Instructor 2 recounted a situation where the feedback was not necessarily negative, but

some students could have perceived it as such:

> *Last semester, some people turned in assignment when we were doing adjusting entries.*
>
> *I could tell that they were clueless, they were just turning in…none of the adjustments*
>
> *were correct. I don't know if I gave them any points at all. I gave them something and*
>
> *then said "none of your adjustments were correct, if you would like to call me I would be*
>
> *happy to walk you through or here are some hints.*

"Scheduling Reinforcement" also was found to have five units. The scheduling of

reinforcements referred to the opportunities provided to students to practice the new material.

Instructor 3 provided an example:

> *Yeah, like the little flash card things I have those set up for right before you take the quiz.*
>
> *You can use the flash cards you know they kind of go over the vocab words and then you*
>
> *kind of link out to the publisher's websites, so all that stuff is kind of for practice before*
>
> *you take the real thing.*

Instructor 1 recounted how the online homework allows opportunity for reinforcement:

> *When doing the online homework; it gives them immediate feedback and they can after*
>
> *practice they can check homework through tutorial mode and then it checks your*
>
> *problem and if you need help you can click a button for help and it shows a step. If you*
>
> *click another button and it shows your next step, and so on until it solves it. It gives you*
>
> *feedback there and when they do the homework they have to put it in test mode where*

they don't get any help. They are supposed to practice in the tutorial mode until they got

it and then they do their homework in test mode.

Five units were found for "Positive Outcomes." The Keller ARCS Model described

"Positive Outcomes" as a way of providing learners with intrinsic and extrinsic rewards, such as

praise, or positive feedback for tasks well done. Instructor 1 commented on one course:

If they do well they get positive feedback right off, but for students who don't do well and

really struggling; they need the positive feedback, I think, more than anybody and they

are not going to get on their homework. I try to find other ways to encourage them. If

they get a little discouraged and they don't turn in the homework or something; I'll say

"[student's name], you have been so diligent, I can always count on every Monday

morning when I come to work your homework is there waiting for me. Last week it

wasn't and what happened because you are always such a hard worker." I try to find

something. Or I remember from your introduction you have a lot going on; are you

OK?" I try to cast everything in a positive light if I can.

Instructor 2 recounted feedback in a similar fashion:

Every time someone would submit an assignment in the dropbox I always say something

back to them when I grade it. I usually say "good job, keep up the good work." If they

missed anything I would explain what they missed and usually end with "everything else

looks great." Every assignment gets some comment.

The ARCS Theme "Attention" was found to be the least number of units, by only a small

margin, as indicated during the faculty interviews. "Inquiry" was found to be a key aspect of the

"Attention" theme; ARCS defined "Inquiry" as referred to questions or problems for students to

analyze and solve. Instructor 1 recounted that:

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I have a little discussion board called "I have a question…." that is where they are

supposed to ask other students questions. This discussion board is where your

classmates answer questions, and I don't want to jump in and answer them all. I do keep

an eye on it and if I see a question that never gets answered or a lot of people feel

confused on a thing; I will address it.

Summary

Research Question 3 posed the question, "How do exemplary online Business faculty use the Keller ARCS motivational model in online instruction?" This study interviewed three instructors to provide insight that helped provide data for Research Question 3. The students were asked to nominate a business instructor and course that the student perceived to be most motivational. From that list, the most nominated instructors were interviewed.

The Keller ARCS Motivational Model elements were used as the themes for Research Question 3: Attention, Relevance, Confidence, and Satisfaction. The ARCS sub-components that made up each theme were used to code the instructor interviews. The ARCS Themes that were found were: 36 units were found for theme "Confidence," 25 units for theme "Relevance," 24 units were found for theme "Satisfaction," and 22 units were found for theme "Attention."

The significant findings found from the themes were: The "Confidence" theme was found to include providing key information upfront to students. The design of the course must allow for student success and become progressively more difficult for students. Additionally, the time and effort required to complete activities should be provided to students. The "Relevance" theme was found to include the use of "choices" and to relate the course to the student's situation as key motivational components. The "Satisfaction" theme was found to include negative

consequences that are handled within the course, and practice that offers immediate feedback. The "Attention" theme was found to include students asking students questions within the course.

Chapter Summary

Eighteen students were interviewed for this study. A total of 474 units and 11 course elements were found to be motivational from these interviews. From the total of 474 units, nine categories were found to emerge: 30 units were found to develop the category of "Feedback," 29 units were found for category "Access," 23 units were found for category "Reminders," and 20 units were found for category "Comprehension." From the nine categories, three themes were found to emerge: "Course Element Availability" from four categories of 48 total units; "Asynchronous Learning Options" from two categories comprised of 50 total units; and "Track Course Progress" from three categories of 46 total units. In addition, four themes were found to emerge from the units: 116 units were found for theme "Course Communication," 83 units for theme "Course Requirements," 71 units were found for theme "Grades," and 60 units were found for theme "Course Organization."

Seven themes were found to emerge during the coding process: 116 units were found for the theme "Course Communication," 83 units were found for the theme "Course Requirements," 71 units were found for the theme "Grades," 60 units were found for the theme "Course Organization," 50 units were found for the theme "Asynchronous Learning Options," 48 units were found for the theme "Course Element Availability," and 46 units were found for the theme "Track Course Progress."

The significant findings were: The "Course Communication" theme was found to include student relationships in online discussions and caring and quick responds from instructors. The "Course Requirements" theme was found to include the use of discussions to develop the online classroom and the specific requirements for each course element. "Grades" theme was found to include grades being up-to-date and that the gradebook showed all potential graded assignments for the entire course. Additionally, students wanted to be able to compare their grades to their peers. The "Course Organization" theme was found to center around the layout and design of the course and repetitive use of course elements. The "Asynchronous Learning Options" theme was found to include purposeful uses of discussions to provide learning opportunities and that instructors provided detailed feedback and appeared caring throughout the communication. The "Course Element Availability" theme was found to include 24-7 student access to grades and the ability to preview assignments in the gradebook. The "Track Course Progress" theme was found to include reminders of due dates and graded activities.

For Research Question 2, eighteen students were interviewed; a total of 100 units were found to be motivational. From the total of 100 units, the student interviews indicated that each of the four ARCS themes and all 22 Components were found in the online business courses. The Components were used as "units" and those with the most prominent number of comments from the student interview were the following: 15 interview comments were coded as "Scheduling Reinforcement," 10 interview comments were coded as "Difficulty," 9 interview comments were coded as "Variability," 8 interview comments were coded as "Self Confidence," and 8 interview comments were coded as "Choice."

The four Themes that were found to emerge from the ARCS Components (units): 31 units were found for theme "Satisfaction," 25 units for theme "Relevance," 24 units were found for theme "Confidence," and 20 units were found for theme "Attention."

The significant findings found from the themes were: The "Satisfaction" theme was found to include practice prior to graded activities. The "Relevance" theme was found to include the use of "choices" as a key motivational component. The "Confidence" theme was found to include the progression of the difficult of the activities and the access to review and practice new material. The "Attention" theme was found to include variability of instruction and course elements.

For Research Question 3, three instructors were interviewed; a total of 107 units were found to be motivational. From the total of 107 units, the instructors interviews indicated that each of the four ARCS themes and all Components except "Need Matching," were found in the online business courses. The Components were used as "units" and those with the most comments from the faculty interview: 11 interview comments were coded as "Learning Requirements," 10 interview comments were coded as "Difficulty," 7 interview comments were coded as "Expectations," 6 interview comments were coded as "Avoiding Negative Influences," 6 interview comments were coded as "Present Worth," and 6 interview comments were coded as "Choice."

The four Themes that were found to emerge from the ARCS Components were 36 units on the theme "Confidence," 25 units for the theme "Relevance," 24 units for the theme "Satisfaction," and 22 units were found for the theme "Attention."

The significant findings found from the themes were: The "Confidence" theme was found to include providing key information upfront to students. The design of the course must allow

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for student success and become progressively more difficult for students. Additionally, the time

and effort required to complete activities should be provided to students. The "Relevance"

theme was found to include the use of "choices" and to relate the course to the student's situation

as key motivational components. The "Satisfaction" theme was found to include negative

consequences that are handled within the course, and practice that offers immediate feedback.

The "Attention" theme was found to include students asking students questions within the

course.

CHAPTER 5 - CONCLUSIONS AND RECOMMENDATIONS

Introduction

The purpose of this study was to explore Community College first-year Business student online course motivation. The study focused on online student motivation through the framework of the Keller ARCS Motivational Model. The study sought to understand how the ARCS model was implemented in the online business courses. Both student and instructor interviews provided insight into how and why the various course elements were used in online business courses. The study explored the following research questions:

1. How do undergraduate first-year Business students perceive online course elements as being motivational?

2. How do the online courses that Business students perceive as being motivational use the Keller ARCS Motivational Model?

3. How do exemplary online Business faculty use the Keller ARCS Motivational Model in online instruction?

This chapter includes discussions and conclusions that arose from the data analysis in the context of each research question. The discussions were included to highlight the implications, and significance of this research applicable to online student motivation research, in general, and first year business online student motivation, in particular.

Research Question 1

"How do undergraduate first-year Business students perceive online course elements as being motivational?" Seven student motivation themes were identified for Research Question 1,

based on the evidence gathered in this study. The findings were influenced by the Keller ARCS Motivational Model, though the findings were not limited to that model. The theme "Course Communication" was identified as having the most units for motivational online course elements. Students perceived six major types of communication were relevant to their online course elements as being motivational.

Course Communication

(1) <u>Students enjoyed the student-to-student conversation.</u> Students felt that the student-to-student conversations in the discussions developed relationships with other students. One finding that was related to relationship building was the "introduction" discussion where students could introduce themselves to get acquainted and find commonalities. Many students felt that knowing the general background of other students made them feel a connection with their fellow classmates, which set a foundation from which relationships could develop.

(2) <u>Student relationships changed over time in the course.</u> Students believed that after reading a student's discussions for several weeks, they became comfortable with the student and could identify the person's humor, frankness and other character elements through written communication that would not necessarily be recognized in other ways. Because of these developed relationships, students felt as though they could ask other students for help and share differing ideas, in a "safe" environment. Student 8 stated that the "feedback you get from everybody" worked well in the class. Students felt that simple comments, without elaboration, such as "I agree," did not really add to the discussion, nor did it develop the kind of communication the students wanted.

(3) Students wanted discussion from both the student and the instructor that are

meaningful. While instructor involvement in the discussions was mentioned, it was not deemed

to be as important to the students as the student-to-student conversations that took place in the

discussions. Students mentioned that they liked the "ideas" and instructor point-of-view, when

the instructor participated in the discussions.

(4) Students felt discussions that allowed for opinion-based conversation, which allowed

a wide variety of points-of-view from the students, which perceived to be motivational. Several

students indicated that they liked the discussion posts of other student's perceptions and

experiences. Students also mentioned that these types of discussions were often related to their

personal life and thus their personal opinions. Students felt that opinion based discussions

allowed for quick, and easy initial posts, as well as in-depth discussion from student's replies.

While students mentioned they liked the "easiness" of opinion-based discussions, none of the

students indicated that the discussions were inadequate or that students did not care about it.

(5) Students wanted emails from the instructor that appear caring. Students

acknowledged that instructors frequently sent email, which appeared "appeared caring" to the

student in two unique ways. First, instructors sent general emails to the entire class—these

emails were course information and applicable to all students in the course. An example of the

information provided in the general emails was: course due dates, helpful tips for students in

specific problem content areas and help to solve it, and reminders that informed students that the

instructor was available to help them succeed in the course. Students liked that these general

emails occurred throughout the semester as needed. Second, students reportedly liked

individualized communication, which were in the form of an email sent to only the student. The

individualized emails were often, but not always, a response to something that the student did

and were relevant to only that one student. Students mentioned several reasons that instructors sent individualized feedback and the type of information within the email, for example: (1) replies to an email sent by the student, which often commented that it was a "good question" and sometimes the answer would also be included in the general emails (2) if a student did not submit work, and the comment included a supportive tone (3) if a student submitted inferior work compared to normal, and the comment would offer suggestions and often ask if there was anything the instructor could do the help (4) words of encouragement, such as, "good job" and "keep up the good work." Students liked these little bits of encouragement and caring—and found it to be motivational to their continued success in the course.

(6) Students wanted quick responses and feedback. In the online business courses in this study, there were not set times in which both the instructor and students were scheduled to be online together at the same time. Because there was not a set time for students to ask questions and receive feedback, students reported that it was imperative to their success and motivation for the instructor to respond quickly to emails. Several students said they liked that the instructor responses "fast" or "quickly," but only one student indicated exactly what that meant—within the next day. One student described a previous online instructor that was slow to respond to emails and the student felt alone in the class. When an online business instructor responded quickly to email, it helped develop the positive relationship in the online classroom environment that students desired; furthermore, quick responses from the instructor to the student's inquiries helped the student realize that the instructor was actually "there" to help the student.

Course Requirements

The next theme "Course Requirements" was identified, with 83 units. Students believed that five major underlying motivational traits were found for the "Course Requirements."

(1) <u>Students wanted to know specific expectations connected with the course elements.</u> Students described the use of the "discussion" course element in terms of how it developed the online classroom environment. Students mentioned two basic requirements that help the discussions meet the needs of the students: required initial postings and required replies. Most students reported that the initial posting for each discussion was mandatory. One option that was available in the discussion course elements was a feature that allowed, or did not allow students to view the other students discussions before the student posted his/her initial posting. Students had mixed comments about this feature, and the underlying theme was that if a student could view other student's initial postings prior to their posting, most students reviewed those other student's postings and many times developed their own initial posting based on the other students; also students liked being able to view the other students postings prior to their own in case they were behind and needed to quickly post. However, when students could not view other students initial postings prior to their initial postings, students felt it required more time and effort because they had to develop their own ideas and thoughts about the topic; students also felt that at times they could misinterpret the questions, thus post an initial posting that was off base. One student reported she had misinterpreted a discussion question and after reading the other students posts, reposted by correcting it. While the post prior to viewing option seemed to have negatives, many students actually liked it because it changed the importance of the discussion and made them "think."

(2) Students wanted separate due dates for initial posts and replies in online discussions. Several students mentioned that the initial posting had a separate due date than the replies, thus it provided students the opportunity and time to review all initial postings before making replies. Students again had mixed feelings on this requirement as well. Some students liked the separate due dates so they had time to read the initial posts and reply. Other students felt like the separate due dates was confusing and they would inadvertently miss the due date for either the initial posting or the replies. It appeared to be more of a time management issue for each individual student rather than actually a preference of the discussion schedule.

(3) Students wanted replies to be required in online discussions to develop the online classroom. All students mentioned that the discussions had required replies, but the specific number of required replies seemed to vary from class to class. Most students reported that 2-3 replies were required for each discussion. Again, students had mixed reviews about the required replies and its usefulness or lack thereof. Some students liked the required replies because it helped develop the online classroom and the student relationships. Other students felt like the discussions had no value and they just posted something to get the points and did not really read the discussions. Several students indicated that the point value and overall importance of the discussion to the class changed their perception of the discussion. For example, if the discussions were only worth a small percentage of the points, or if the discussions did not really seem to "add-to" the course, then students felt it had less value and were less likely to put much effort into the discussion. However, one student reported that one class he was in used discussions as a key feature and significant points were associated with the discussions. In that class, he felt the discussions were useful and worthwhile, but in another class where discussions were only a small percentage of the points, he did not try. If discussions were to be successful,

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then the discussion should have been a key component (point value and overall importance to learning the material) of the course.

(4) Students wanted to know the length requirement for activities. Discussion requirements often had the required length of posts, or the required minimum number of words. Students seemed to accept the minimum length and word requirements without much debate. A few students felt like it really made them think more deeply about the topic and expand on what they were thinking. This also helped avoid the quick, "I agree" comments and developed the conversation between students. The discussion course element had many different requirements to choose, while other course elements were somewhat more limited.

(5) Students wanted a reasonable time limit for assessments. The major type of requirements used for the "assessments" course element was the time limits. Most students indicated that the assessments (quizzes and tests) had a set time limit. The students liked the time limit, but also indicated that students felt there was sufficient time to complete the assessment. Students also indicated that even though the assessments were timed students had time to look through the book, handouts, and notes. The students seemed to dislike the assessments that did not have some type of time constraint. Students identified three key reasons why unlimited times on assessments were problematic. First, students felt like they did not need to prepare prior to the assessment, because the time was unlimited and they could spend the time during the assessment "looking up" the answers. Students felt that if there were a time limit they would have prepared prior to the assessment so they could use their limited time to be more productive during the assessment. Second, students believed that because there was not a time limitation they often did not find a time and location without interruptions. Students believed that if something "came up" during the assessment they would be able to take care of it and

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continue taking the assessment. Should a student be interrupted during an assessment, it could have affected their ability to concentrate, and showed up negatively on their grades. Third, technology issues were a concern. The longer the assessment was open, the more chance the student could have computer or internet issues and thus have an issue with the assessment. In addition, students did not take into account that the LMS would close the web browser and the assessment after a set period of inactivity.

Grades

The next theme "Grades" was identified, with 71 units. All 18 students mentioned the importance and motivation of grades. Students believed that three major underlying motivational traits were found for the "Grades" course element: up-to-date grades, tracking progress, and peer-to-peer grade comparison. The "Grades" course element was available in two forms: on the course homepage, which provided only a summary and in the Reports, which provided detailed grade information.

(1) Students wanted up-to-date grades, which is vital for their success and motivation in the course. By a quick glance on the course homepage students could see their grade summary. Students mentioned that the student's current grade in the course allowed the student to determine how much effort the student would put into the assignments for that week. Students felt that by reviewing their grade, they could effectively judge the level of effort required to maintain or increase their grade on future assignments. Students did not report how well this method actually worked for achieving the grade they desired, but several students mentioned it. Students liked the assessments because after it was submitted then it would be automatically

graded and scores were recorded into the grade book. Students could see how the assessment affected their overall grade in the class without waiting for instructor interaction.

(2) <u>Students wanted to know the approximate turnaround time for grading.</u> For some graded activities, the instructor would grade and then manually enter the score into the grade book. Students liked to know the approximate turnaround time for grading by each instructor. Student reported a wide range of turnaround times. Some students found that grading occurred daily, and sometimes almost instantly. Other students that reported grading only occurred once a week, generally the day following the due date. Students further found that some instructors graded all the work submitted, while others only graded work that was due that week. Students wanted a more standardized guidelines followed by all instructors, so student would know what to expect. Additionally, this would help students know when to expect their grades would be updated, so they would know when to go look.

(3) <u>Students wanted to use the gradebook as a way to view their progress in the course.</u> Another use of the grade book was that it helped keep track of the student's progress in the course, and specifically it helped keep track of the graded activities. Students liked that the grade report listed all the graded activates and the point values for each in the course at the start of the semester. As students completed their work and the instructor recorded the scores in the grade book, students could see the completed graded activities and the ones remaining. Students could use this to determine the scores required on remaining assignments to earn a specific grade. Also, student reported that they used the information to help them determine graded activities that were worth more points than others. Students liked being able to see which graded activities were more "important" than others so they could use their time wisely. One concern with this method of the student using point values to determine what was most important based

only on point values was that, while one graded activity may not have been worth many points, in-fact it could have been vital to something later in the course that was worth a significant number of points. The instructor may have needed to explain the importance of various activities, so students understand how and why it was important.

(4) Students wanted to compare their grade to others in the class. In addition, to the misconception of the point-values of the grade report, the grade summary also had a fallacy that students may have misinterpreted. The grade summary displayed the student's grade as well as the course average, so students could compare their grade to their peers. Most students believed that when their grade was higher than the course average they were doing well in the course and felt good about their progress in the course. Students may not have realized that the course average was somewhat inaccurate, because it included all students enrolled in the course. For example, should a student get behind or stop submitting work and not withdraw from the course, that student's grades of "zero" actually brought the course average down, which made it appear that students in the course performed worse than the reality. Therefore, the students that were viewing the course average that was in the course could have given them an unfounded view of the true course average. This was an aspect of the LMS where there should have been a way to exclude students that were not actually participating in the course to provide a better course average for those students that were actively participating and wanted to compare themselves to their peers. In addition, the LMS should have provided the option to show a comparison of grades for each graded activity. One concern for such detailed grade comparison could be when a class only had a few students, the grade of individual students may not have remained anonymous.

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Course Organization

The fourth theme "Course Organization" was identified, with 60 units. Students believed that two major underlying motivational traits existed for the course elements:

(1) <u>Students wanted a course that was organized by week.</u> The comments from students that were coded as "setup" often surrounded the very nature of how the course was organized by week—and just as importantly that all the information for that week was in one location. While there were many similarities between course elements and the way they were setup at the college, each instructor could choose to use them differently. Each course had a "Lessons" tab and within it were individual folders that were used to organize the course activities, notes, etc. Students mentioned that in most cases the course was organized by Chapters, and in some cases first organized by Units and then by Chapters. The naming of these folders varied from course to course, sometimes taking on the name of the Chapter, while other times referred to as "Week X" or "Module X." Students did not care which naming feature were used, so long as they could easily determine what to do and when it need to be done. Students liked when the folder name included the dates that the student should be working on it, for example "Chapter X - Jan 1-Jan 7."

(2) <u>Students wanted a course that was organized where all information for each week is located in one folder.</u> Within those weekly folders students felt that the notes, activities, etc. were organized in a logical manner that was easy to understand what activities needed to be completed. Students liked that everything that a student would need for a chapter was located in one folder. For example, students would expect to go into Chapter X and find all the notes, activities, etc. to be located in there. Based on the comments from the student interviews, students were saying that they did not want to access "homework" in one location and

"discussions" in another location and "notes" in another location. Students hit home the idea that everything that would be needed was together in one location, so students could quickly move from one to the next for that chapter. Students also mentioned that they liked how the activities were broken-down, so they did not get lost with too much in the folders. Students did not specifically mention the naming schemes used for the notes, activities, etc. that were used in the folders, but all students used the following terminology when they discussed the work that was graded: Dropboxes, Discussions, Quizzes, and Tests. Instructors should have used this terminology, as it appeared to be a standard that students expected.

(3) <u>Students wanted the course elements to be repetitive from week to week.</u> Beyond the setup of the course that focused on the naming of the folders and activities and how those were organized into folders, students mentioned they liked the course elements to be repetitive. At the college, there were no required standard set for most of the course elements. For example, all courses were required to provide the syllabus, but other course elements such as "Discussions" were not a required course element. The students were referring to the course elements within a course being repetitive and not necessarily repetitive course elements from course to course. Students felt that the specific course elements should remain the same each week. For example, if the course started out with two discussions and one dropbox that were graded the student liked it to repeat that format for following each week. When the course elements were the same, it effectively kept the "work load" approximately the same. A course that had changed course elements from week to week prevented students from getting in a routine. Students did mention that on occasion the course elements changed but only a minor change. For example, at the end of a unit there could have been a dropbox or quiz (assessment) in addition to the expected course elements. Students felt that this was an appropriate use of changing the course elements, while

remaining repetitive. Students did not want to be surprised when they open one of the weekly folders.

(4) <u>Students wanted the course element requirements to be repetitive from week to week.</u> In addition to the course elements repeating throughout the course from week to week, students also liked when the expectation about those course elements remained the same. For example, if a discussion required an initial post and then two replies, students liked it when those requirements for the course element remained the same from week to week. The same was true for Assessments, if there were normally 20 questions and a 1-hour time limit; students liked it when that was repetitive from assessment to assessment. Minor changes to these requirements should have been communicated to students prior to the student starting on those activities. Students needed this information so they could best manage their time.

(5) <u>Students wanted course elements were easy to find and use.</u> The repetition throughout the course was one way that helped ensure students were able to find and use the course element. A final strategy that students mentioned that somewhat contradicts the purpose of repetition were that students liked to be able to locate information in multiple places. For example, should a student have wanted to post to all discussions, the students wanted a quick and easy way to locate all the discussions. The students also wanted to be able to go to a specific weekly folder and find all the activities for that week. The ANGEL LMS did organize some of these course elements whereby it showed in multiple locations; two of the course elements which behave in this fashion were discussions and grades. The grades for each activity may have been accessed in the course elements located in each weekly folder, as well as in the grades report. Unfortunately, not all course elements were available in multiple locations for students.

Asynchronous Learning Options

The fifth theme "Asynchronous Learning Options" was identified with 50 units. Students believed that three major underlying motivational traits existed for the course elements:

(1) <u>Students wanted discussions that "presented" useful content.</u> Students felt that the instructors should have used discussions to present content. Discussions were available and used in each course, but students did not describe the discussions as a key role in the course and often times indicated that the point values assigned to discussions were insignificant when compared to other aspects of the course. Students felt the discussions were not regarded with the same usefulness because of this reason. It was interesting that students liked the discussions for "learning" and understanding of content. Students mentioned that they liked the different points of view and opinions from the other students and found "value" in this mode of learning. Students described the use of the "discussion" course element in terms of how students developed understanding.

(2) <u>Students wanted to develop understanding from other student's discussion participation</u>. Most students reported that participation in discussions were mandatory, which turned out to be a useful aspect of student learning which occurred in the discussions. Students felt that their understanding of the content was developed through the discussion posts and replies from the other students in the course. Student-to-student communication offered a unique learning environment where the textbook and instructor did not offer the unique leaning from other students. Furthermore, students appeared to enjoy the student-to-student conversation. Students did not find short simple posts from students or instructors to be useful.

(3) <u>Instructors were supportive and explained errors in detail.</u> The students had somewhat limited expectations for the role of the instructor. Students felt that it was important

for instructors to be supportive in their communication in the discussions. Students liked, "words of encouragement," even when a student did not necessarily correctly post to the discussion. Students did not indicate how often or to what extent they wanted the instructor to be supportive. Students also liked when the instructors were detailed when explaining errors. Students did not go into depth to define all the reasons why students wanted detailed explanations, but the underlying purpose was to gain knowledge.

Course Element Availability

The sixth theme "Course Element Availability" was identified with 48 units. Students believed that two major underlying motivational traits existed for the course elements:

(1) <u>Students wanted access to grades available 24/7.</u> The interviews from the students found that overall grades were motivating and important to the student. The students also mentioned that they wanted to have access to the grades at all times. In ANGEL there were two ways to view the grade, and several students mentioned the benefits of both. The overall course grade was useful for student to quickly view their progress and the detailed report allowed students to receive feedback and view individual graded activities. Students expected their grades to be updated and available at all times. Because online courses were somewhat disconnected from the instructor, the grade was one quick way for the student to gauge their understanding and progress in the course. Furthermore, students wanted to be able to go back and review graded activities. In ANGEL, when the grade feature was setup for students they had 24/7 access from that point on. It also allowed students immediate access to their current progress in the course, because they could view both the activities that were graded and those activities that were ungraded.

(2) Students wanted the ability to preview future activities. In addition to the students' grades being available 24/7, students also reported that they wanted to access to view future activities. Students mentioned that by being able to view the future activities they could better manage their time. While the students did not mention whether they could view all the activities or just the immediate future activity, the students wanted to be able to view the activities in their entirety. When future activities were available to students, it allowed them to plan ahead (and likely work ahead), should the student have had personal situations that would have prevented them from otherwise being able to complete the activities for the class during that time. Furthermore, the ability to work ahead was important to those students with fulltime jobs and families.

Track Course Progress

(1) Students wanted to be reminded of important dates during the course. Students wanted to be reminded when activities were due. Each online business course provided a schedule at the beginning of the course, which outlined the activities to be completed, the approximate start date for each activity, and the due date for each activity. This information was helpful, but students still wanted reminded throughout the course of this information. The reminders about the due dates helped students to refocus on the course. It also allowed students to see what was immediately due for a given module. In fact, the reminders of due dates offered students that extra "push" so they were prompted to complete the activities.

In addition to notification of the due dates, students wanted to be notified when activities were graded. Each instructor may have had different turnaround times for grading. Further, because of other factors that may have changed the turnaround times for an individual instructor

to grade activities, it was important to provide a notice to students when grading was completed. This helped students to know when their grade may have changed. Graded work was not the only notification that students needed.

A reminder to students that outline the activities that should be completed within the module was useful. Students liked to "preview" the upcoming module, and by outlining the activities to be completed, students were less likely to overlook an activity. This also helped students navigate through a course, which may have been otherwise confusing—and may have helped the students identify the "important" activities that the instructor outlined. Further, students also mentioned that a weekly schedule was sometimes provided—the schedule provided the days of the week and the activities that should have been completed each day.

Research Question 2

Research question one asked, "How do the online courses that Business students Perceive as being motivational use the Keller ARCS motivational model?" This study used the Keller ARCS Motivational Model as the theoretical framework to understand the motivation of online Business student's at a community college. The ARCS model of motivation includes four categories to achieve and sustain student motivation: attention, relevance, confidence, and satisfaction. Keller (2006) stated that the ARCS model of motivational design consists of a set of categories of motivational concepts and strategies that are derived from a synthesis of the research on human motivation combined with a review of successful motivational practices. All 18 students interviewed found that one or more of the ARCS themes were in the online business courses that they were enrolled. At the time of the study, none of the online business courses were required to use any motivational models.

From the student interviews, a total of 100 units were found for the Research Question 2. The four Themes that were found to emerge from the ARCS Components (units): 31 units were found for theme "Satisfaction," 25 units for theme "Relevance," 24 units were found for theme "Confidence," and 20 units were found for theme "Attention."

The Keller ARCS Motivational Model was reorganized by frequency to show each ARCS Theme. Furthermore, the conclusions and discussion will be discussed in the following order: Satisfaction, Relevance, Confidence, and Attention, according to their order of importance for students.

Satisfaction

By far, Scheduling Reinforcements was the most important component of the Satisfaction theme. "Scheduling Reinforcements", as described in the Keller ARCS Motivational Model, referred to the opportunities of reinforcements, and how those opportunities were organized for learning. It was found that "Schedule Reinforcement" was important for four key reasons:

(1) Students wanted to practice prior to working on graded activities. Students needed the practice to be offered in the same manner that would be used for graded activities. Students wanted to be able to take a practice quiz prior to a similar graded quiz and practice activities before similar graded activities. For example, the questions should have been related to the same type of topics that would be on the graded activities and if a graded quiz were "multiple choice," then the practice quiz should have been "multiple choice." This allowed student to not only practice the content of the course, but also be able to prepare for the layout and type of questions that were asked on graded activities. This was especially important for students as they began

the course and had little to no background to frame the graded activities. It was useful for

students to "preview" the type of activities before they were asked to perform and graded on it.

(2) Students wanted to choose whether or not to actually practice prior to the graded

activities. Students wanted the practice opportunities presented to them as "options." Students

wanted the option of either taking the practice activities or going to the graded activities. Some

students may not have needed the practice, and they should not have been forced to complete

"extra" activities. This created more student satisfaction with the design and use of the practice

in the course. Another underlying factor for the reason that practice had options was that some

students had limited time and did not want the practice, regardless of their overall success in the

course. Students wanted to feel that they were in control of the "practice."

(3) Students wanted to receive feedback from the practice. Students mentioned that they

liked immediate feedback in either the form of a "quiz," which showed the questions and

answers after the quiz was completed, or individualized feedback from the textbook publisher's

website. The individualized feedback from the textbook publisher's website was in the form of a

tutorial that helped students through the questions. Additionally, students wanted all questions

that were incorrect to be explained in detail. Feedback that simply showed the correct answer

did not help them "learn" how to answer a similar question. Students wanted to be able to

expand on their practice. When the automated feedback was insufficient, students needed to feel

as though they could communicate with the instructor should they have questions.

(4) Students wanted access to the practice in an unlimited format. Students did not want

to be limited on time or access, even though many of the graded activities were limited. Students

wanted to use as much time as it took to practice and learn the material. Furthermore, students

wanted the practice to be available for them to repeat it. Students wanted to use the practice as a

way to retest their knowledge and at times go back to previous practice when needed. This also helped students that were busier in a particular week to work ahead.

Relevance

"Choice" was the most important component of the "Relevance" theme. The "Choice" component described in the Keller ARCS Motivational Model referred to how students were allowed choices in the assigned activities. It was found that the kinds of choices offered were important for four reasons:

(1) By allowing choice of topic, the students felt more in control of their learning. This choice referred to the option for the students to choose the topics for graded activities. The instructor chose the main "topic," but allowed students to choose from options within the main topic. Students perceived this as a choice of the "topic," even if the extent of the choice was limited. Students wanted to feel that they were in control of their learning. Students stated several ways that the choice of topic was presented.

(2) By offering students options, they became more interested. For example, discussions presented in a manner whereby students chose from multiple options within the main discussion post increased interest. One student mentioned that the major topic was listed but within the discussion there were several choices from which the student chose to respond. Students chose the option where they were most interested and thus were more motivated to put in the effort. As an individual, students had various interests and by providing several options, it was more likely that one of those options were of interest to the student, when compared to a single topic.

(3) Students chose the post that elicited most interest for response. Discussion posts should have been offered to students so the student could choose which posts and how many to

read. Students wanted to choose which discussions posts to read and which discussion posts to reply. This choice was needed in order for them to be able to read at their own level and according to their own interests so that they could develop a better understanding of the topics and respond to the class discussion appropriately. Students found that certain student's post were more interesting, and therefore enhanced student interest and motivation. Conversely, the student could find that other posts were often insufficient for them to be able to develop a response, and thus the student could choose to skip those. Students were allowed choices beyond the various options within the graded activity.

(4) <u>Students could choose which course elements to use.</u> Students mentioned that the notes and other practice related activities were often optional and they could use it if they wanted. Again, this allowed the student to be in control of their learning. Should a student need additional practice or notes they could have chosen to use the course elements. This also allowed students to use only the specific course elements that were "required" for the course. None of the students indicated that points were deducted for not using a course element, but some students mentioned that by using a specific course element they could earn bonus points. Students often only wanted to use course elements that were graded and did not want "additional" information.

Confidence

"Difficulty" and "Self-Confidence" were by far the most important components of the "Confidence" theme.   The "Difficulty" described in the Keller ARCS Motivational Model referred to how the course was organized with activities that built confidence and then make

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activities progressively more difficult as students progress. It was found that "Difficulty" was important for one key reason:

(1) <u>The progression of the difficulty in the course was equally important with regard to the time and effort required to complete the activities</u>.   Therefore, though the difficulty level of the courses varied, partly based on the content, the student needed activities at the beginning of the course that were less difficult than those later in the course. Those small successes in the course helped students continue to be motivated in the course and not simply "drop out." As students gained more knowledge they needed the opportunity to apply that knowledge to more difficult activities. An online course was designed in this same fashion, while maintaining the same approximate time and effort required of the student for each level of activity or lesson. This could have been accomplished by breaking larger more difficult tasks down to smaller ones.

The "Self-Confidence" component of the Keller ARCS Motivational Model referred to how the students were allowed opportunities to practice new knowledge prior to applying it beyond the classroom setting. It was found that "Self-Confidence" were important for one key reason:

(1) <u>The opportunities to review and practice new material in the class built student self-confidence.</u> Students expected courses that were designed with practice opportunities prior to tests and other applications of the content. Students needed practice opportunities to review their understanding of the material. The online environment many times offered learning in the form of written text rather than direct interaction between student and instructor. Students wanted the chance to build and master their skills. In the online environment, practice opportunities that provided immediate feedback and tutorial-based help allowed students to quickly progress through problem areas.

Attention

By far, "Variability" was the most important component of the "Attention" theme. The "Variability" described in the Keller ARCS Motivational Model referred to a change in instruction, generally mediated, such as short video clips, discussions, or team projects. It was found that "Variability" was important for three reasons:

(1) Variability of instruction was motivational to online Business students. In online classes, much like the traditional face-to-face classes, doing the same repetitive tasks in a class lacked the variety that students sought. While online students wanted change, they wanted it to be offered in a specific fashion.

(2) Students in online business courses wanted instructional variability while retaining the basic course layout. Students wanted the change to be integrated into the course elements they had been using throughout the course. This means, that students do not want change if it required "new" course elements to be used in the course. An example of change that would not require a new course element was an activity that required a video to be watched rather than textbook reading. The video was the change in instruction, but the continued use of the course element would retain the layout the students wanted. Beyond the way activities were presented, there were specific attributes that course elements could have offered to increase course and instructional content variability.

(3) Each course element had many attributes that could have been used to provide students additional variability in an online course. For example, an online quiz could have offered students questions from a test bank, a different number of questions, or with a time limit. Discussions offered students the ability to read discussion posts before the student posts or not, allowed attachments or not, and a rating system where other student anonymously "rated" other

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student posts. The dropbox could have been used to allow multiple submissions or not, prevented upload of activities after the due date, and provided various ways that the grade could have been updated into the gradebook. Students mentioned these differences, as variability in the instruction. While these course element attributes could have been modified for each course element, there was continuity so students did not become confused. Implementing one of these changes, perhaps at the end of a unit, could have been a way to provide variability without changing the basic design of the course and regain or retain student attention.

Research Question 3

Research question three asked, "How do exemplary online Business faculty use the Keller ARCS motivational model in online instruction?" The instructor interviews focused specifically on the Keller ARCS Motivational Model to answer the research question, which used the ARCS model--Attention, Relevance, Confidence, and Satisfaction. The faculty were asked interview questions that would provide detail about how the faculty were using the ARCS model in their online courses (even though the faculty may not have realized that they were inadvertently following the ARCS model). At the time of this study, none of the online Business courses were required to use any motivational models.

From the faculty interviews, a total of 107 units were found for the Research Question 3. The instructors' interviews were limited to the Keller ARCS Motivational Model and each of the 22 Components were they major focus of the interview. Four themes were found to emerge from the ARCS components (units) were: 36 units were found for theme "Confidence," 25 units for theme "Relevance," 24 units were found for theme "Satisfaction," and 22 units were found for theme "Attention."

The Keller ARCS Motivational Model was reorganized by frequency to show each

ARCS Theme. Furthermore, the conclusions and discussion will be discussed in the following

order: Confidence, Relevance, Satisfaction, and Attention, according to the order of their

importance for students.

Confidence

By far, "Learning Requirements" was the most important component of the "Confidence"

theme. "Difficulty" and "Expectations" were also found to be important components of the

"Confidence" theme. The "Learning Requirements" described in the Keller ARCS Motivational

Model referred to setting clear learner objectives and prerequisites for each instructional activity

and providing examples and rubrics. It was found that the "Learning Requirements" was

important for two reasons:

(1) <u>Provided important information and areas of problematic concern at the beginning of</u>

<u>the course.</u> Instructors found that providing important information prior to the start of each

lesson was well received by students. The important information provided by instructor could be

the rubrics used to grade the assignment or important notes that helped the student understand

the material. The information needed to be provided for each chapter and easy to locate.

In addition to important information, areas that students may run into motivational issues

should have also been identified and explained at the beginning. For example, should a

particular activity contained a frequently made mistake, then that was identified upfront and

allowed students to work through the activity with some guidance. This allowed students to

tackle very difficult or confusing material; with confidence knowing some background and that

the activity took additional effort to complete. This was a major change from the system used by

many instructors that left students in the dark until after the student had attempted and often given up on an activity.

(2) Provided the key information needed to finish the course. Students wanted to know exactly what was required to complete a course. Students wanted all information located together, and did not want to have many activities that were either practice or optional. The activities that were graded needed to be easy for students to identify. Furthermore, graded activities provided specific requirements and provided rubrics and other grading information. Once students understood the activities that were graded, those activities remained graded and did not switch from optional to graded. Some students indicated that they were looking only for those assignments that were required, rather than those activities that were not graded, or could provide a greater understanding of the topic. Through the design of the course, the graded activities presented themselves in a way that was recognizable to the student after the first couple of weeks of the course.

The "Difficulty" described in the Keller ARCS Motivational Model referred to organizing learning for success through the course. Begin with activities that build confidence and then make activities progressively more difficult as students progress. It was found that the "Difficulty" was important for two reasons:

(1) Courses were designed to become progressively more difficult. The courses at the research location were designed in a linear fashion, meaning that the first module was completed before the second module and so on. Because of the linear design of the course, the difficulty within the course often became progressively more difficult, since the content built on the previous content. The courses in this study were first year beginning courses. This could have affected the reasons that courses became more difficult as the student worked through the

activities. The "difficulty" of the course did not refer to the difficulty of learning how to use the specific course elements, but rather the course concepts that became more difficult. It should have been expected that as students became more familiar using the course elements their difficulty in using it would have lessened. Beside the issues in learning course elements, students felt that they were successful at learning each lesson as they progressed through the course.

(2) Provide students with success opportunities throughout the course. The instructors mentioned that throughout the course there needed to be some areas that students could be successful, and thus provided an opportunity for success. The success could involve different course elements or simply an activity that would be likely to result in success for students. The success required for students to stay motivated was not defined, nor how often the success should be provided. A course that did not provide some opportunities for "guaranteed" success may not have motivated students. The instructors also mentioned that they provided guidance to the students to help them feel successful at the beginning of the course. This initial assistance and support allowed students to perceive that they could be successful in the coursework.

The "Expectations" described in the Keller ARCS Motivational Model referred to helping students develop realistic expectations about the amount of time and effort required to be successful. It was found that the "Expectations" was important for one reason:

(1) Provided students time estimates for individual activities. Instructors indicated that they provided overall time estimates found in the initial information for the course. This was helpful but did not provide enough information about the expectations required for an individual activity. The activities varied from module to module, so the time estimates also likely varied. While the instructor did not provide the time estimates for each activity, the instructors did

indicate when additional time and effort would be required to complete an activity. This method of indicating when additional time and effort allowed the students to make adjustments as needed and planned accordingly.

Relevance

"Choice" and "Present Worth" were the most important components of the "Relevance" theme. The "Choice" described in the Keller ARCS Motivational Model referred to providing activities which allow students choices. It was found that the "Choice" was important for one key reason:

(1) <u>Provided students with options to chose from for activities.</u> Both instructor and students indicated that students perceived choices as being motivational. The instructors referred to a few ways in which instructors intentionally offered choices, as well as some choices that students may misperceive as choices that were not intended as such. Both instructors and students referenced the major ways that choices were presented by allowing students to choose from a list provided by the instructor for an activity. For example, a student may have been presented with three various topics within an activity. From that list the student could have chosen to answer one of them. The instructors offered choices by different amounts and for different activities, which seemed to be instructional differences. The instructors and students mentioned that the number of choices offered varied, but that there were a limited number of times. This study did not analyze what might be considered too frequent choices offered, since that could have had an opposite effect.

There was another aspect of choice that could have negative effects. Instructor 1 mentioned that the way the course was set up, in which the lowest test grade would be dropped,

was perceived by some students as a choice for them. A student could have chosen to eliminate one of the tests, but that was not the intention of dropping the lowest test score. The students could have also used this to eliminate the final, which was not the intended outcome. One way that could have been used to prevent this from bring misperceived, or just misused by the students, was to require all tests to be taken and then allowed the lowest tests score to be dropped.

The "Present Worth" described in the Keller ARCS Motivational Model referred to the setup of scenarios that show how the students' current situation may be changed by learning new material. It was found that the "Present Worth" was important for one key reason:

(1) Provided opportunities that allowed students to relate the course to the student's current situation. This was accomplished in two ways: (1) the course elements were offered so that students perceived them as being relevant to their current situation and (2) the course content was offered so that students perceive them as being relevant to their current situation. First, the course elements offered students a way for students to learn how to use the course element, which in fact helped them in their current situation. For example, the dropbox course element allowed students to learn how to attach files and save files where it could be found. Both of these tasks may have been relevant to a student in various other aspects of the student's current situation. Second, the instructors mentioned using a few different methods to relate the content to the material. One method was to ask students to provide real life examples in their lessons. By providing real-world examples, the student had to "think" about how the material related to them and by reading the other student's discussion posts, the other real-world examples allowed the student to discover additional uses for the new material.

Satisfaction

The "Avoiding Negative Consequences" was the most important components of the "Satisfaction" theme. "Scheduling Reinforcement" and "Positive Outcomes" were also found to be an important component of the "Satisfaction" theme. The "Avoiding Negative Consequences" described in the Keller ARCS Motivational Model referred to avoiding threats or negative consequences beyond appropriate levels, as well as public evaluations. It was found that the "Avoiding Negative Consequences" was important for one key reason:

(1) Students who received a poor grade considered it to be a negative consequence. Even so, they appreciated feedback about correction and future improvement. The instructors indicated the grade earned was the best and only negative consequence. By allowing the grade earned to be evidence of poor performance, additional encouragement offered by the instructor was viewed positively. The instructors indicated that through the feedback on the grade they provided supporting comments. In addition, when the grade and other comments were negative in nature, they would begin and end the communicating on a positive note. The basic idea was to provide corrective/supportive feedback.

Instructor 3 indicated that one activity was a "peer review," which allowed students to post feedback for other students. The instructor said that it worked well and even some of the more negative comments from other students seemed to help the student make positive corrections. The instructor did not indicate that there had been any issues in which a student felt belittled. Instructor 3 did say that students who did not participate likely found the activity incompletion to be a negative consequence, because the student did not get the needed feedback and was thus unable to make corrections. Therefore, not participating in the peer review was viewed as a detriment to a student's grade.

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Instructor 1 indicated that when a student started to fall behind in the course work, an email was sent to the student asking, "Where are you? What happened?" While the intent of this email was to re-spark the student's interest, it could have been seen as an invasion of the student's personal life. None of the students interviewed mentioned receiving one of these emails, so this study could not determine how the email was perceived by the students. In an online class, if the communication was sent directly to the student in a positive manner then this negative aspect was avoided entirely.

The "Scheduling Reinforcement" described in the Keller ARCS Motivational Model referred to provide opportunities for practice. Organize reinforcements with more opportunities when material is introduced and less as material is learned. It was found that the "Scheduling Reinforcement" was important for two key reasons:

(1) Optional reinforcement opportunities were offered in addition to the graded activities. The reinforcement opportunities were in addition to the graded activities, so students could have "practiced" prior to being graded on the knowledge. The instructors indicated that various methods were offered to students, which allowed them to practice the material. For example, various "quiz" type practice, textbook publisher web-based practice, textbook problems, and LMS specific course elements such as flash cards and crosswords. The instructors did not indicate whether the reinforcement opportunities were in the same format as the graded activities. The instructors did mention that reinforcement was available throughout the whole course and available starting at the beginning of the course.

(2) Provided reinforcement opportunities through immediate feedback. The instructors indicated that reinforcement opportunities were provided via immediate feedback so that students did not have to wait. Students wanted immediate feedback and the instructors in this

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study provided practice with immediate feedback. Some practice provided additional tutorial help when the student asked. It was found that students wanted the practice that offered additional help and found it to be motivational. This type of reinforcement allowed students to get immediate feedback and immediate help.

Attention

The Inquiry was the most important component of the "Attention" theme. The "Inquiry" described in the Keller ARCS Motivational Model referred to asking questions or problems for students to analyze and solve. It was found that the "Inquiry" was important for one reason:

(1) <u>Allowed students to pose questions to other students to solve.</u> Instructors reported that they used discussions to allow students to ask other students questions. This allowed students to pose questions and then other students had to respond to them. The instructors found that this method of presenting questions to other students to solve was a motivational experience. It allowed students to develop the questions, which encouraged them to first analyze the topic. The students were given a wide range of questions not developed by the instructors. This was beneficial for the students in learning how to answer questions from other students, which helped students use correct terminology.

Keller ARCS Motivational Model Online Course Guidelines

The following recommendations were developed from the perceptions of the participants, and should not be over generalized to whole populations. The transferability of the findings should be defined by the trustworthiness of the research and the similarities or dissimilarities of the specific participants and their environment.

Attention

Recommendation 1:   Vary instructional methods by using different course elements. In an online course, one of the easier ways to vary instructional methods was by using various course elements. For example, using the Discussions course element rather than the Dropbox was one way that encouraged class or group discussions on a topic. The key to using different course elements was not to change the course element too often and to explain how and why to use it.

Recommendation 2:   Use the course element settings to provide students with additional variability in an online course. The individual course element settings allowed the course elements to be used for different purposes. For example, Discussions were used in a traditional fashion wherein all students could post and reply, but could have been used to develop a team project wherein only certain individuals have access. Additionally, this could have allowed some students to read but not post, or allowed students to "rate" each other's posts. There were many different options available and by using these built-in options instructors varied instruction for online students. The variety of options varied between LMSs, but by exploring these settings, an instructor could have offered additional variability. Furthermore, this allowed variability in an online course while using the same course elements.

Recommendation 3:   Retain the basic course layout throughout the course. The course should be designed to retain the same basic course elements from module to module, though some variation in course elements is acceptable through media or other means. For example, if each module has a discussion, then it is best to retain that format for the course, with minor variations. Similarly, if a course element is added or removed, the course layout should be retained by including that change for the reminder of the course.

Recommendation 4:   Allow students to pose questions to other students to solve. The Discussion course elements were used to provide students the opportunity to ask questions of their peers. For example, a discussion that allowed students to ask other students general questions was one way that was used. Another method was to provide a discussion activity in which only students post questions to other students. This recommendation required that students reply to other students as part of the grade.

Relevance

Recommendation 1:   Allow topic choices within activities so that students are in control of their learning. The choice offered in many courses was as simple as providing options in an activity from which the students chose one in which they were interested. For example, a Dropbox allowed students to have choices by allowing students to choose from among several options. It was also important to keep the choices similar in difficulty and scope.

Recommendation 2:   Provide students the option to choose the depth of the subject past what is required. The course elements were set to allow student to learn more about the subject matter when they wished. For example, the Discussion course element allowed students various depths. The Discussions required students to reply to a specific number of student posts, thus the

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expected learning requirements were known. The Discussions also allowed students to post additional times, which meant the students could learn more and express more about the topic.

Recommendation 3:   Provide students with optional course elements. The course elements were offered to students so that the student could use it, even when using the course element was not a requirement on a graded activity. For example, if the LMS offered Note Cards, Open Discussions, or a Chat feature then it should have been offered to students, so that the students could have used the ones he/she needed to best perform in the course.

Recommendation 4:   Allow students authentic opportunities to relate the course to the student's current life situation. The learning environment was created in a way, which the student had to think about how the content was useful to them personally. This helped the student to better relate to the content. For example, in a discussion the instructor asked students to apply the content to their current situation and then relate that information to other student posts.

Confidence

Recommendation 1:   Scaffold course difficulty. Students felt that the course difficulty increased at a steady pace and assignments were equally important in terms of time and effort required to complete the activities. Further, the courses did not significantly increase the course difficulty too quickly.

Recommendation 2:   Opportunities to review and practice new material are important to help build the student's self-confidence. It was important that opportunities were provided for students to practice course content prior to graded activities. It was equally vital that several different course elements were available for practice.

Recommendation 3:   Provide students with time estimates for individual activities. Throughout

a course some activities required more time than other activities. By providing time estimates to

students in advance, particularly when an activity would likely take additional time, online

students could better manage their time and were better able to balance school and personal life.

The time needed for activities that were not likely to take longer than the normal activity time

length were not indicated to students.

Recommendation 4:   Provide students with opportunities for success throughout the course.

During course design, consideration should have been given to offering students course elements

and activities that would the student would have been successful in completing. This did not

mean that it was "easy" or "busy work." For example, a course could have offered "chunked"

activities to students, which could have allowed them to be successful. A chunked activity was

one in which a single larger activity was broken down into smaller, more manageable activities.

Recommendation 5:   Provide the key information needed to "get through the course." Students

had different interests and reasons for enrolling in each course. Some students wanted to learn

the topic while others simply wanted to pass the class with an acceptable grade. Both sets of

students needed to know what was required for a passing grade. For example, an outline of the

graded activities and the grading rubric allowed students to determine what was necessary for the

class. Another suggestion was to provide students a breakdown of the activities and the point

values associated with each assignment.

Recommendation 6:   Provide important information and areas of problematic concern in the

beginning of the course. During the course there were certain aspects of the course that needed

explanation in more detail, or areas in a course in which students frequently made errors.

Students wanted to be provided with that information prior to those activities. This allowed students to prepare for unusual activities and better manage their time.

Satisfaction

Recommendation 1:   Provide practice activities prior to graded activities. Students mentioned several times that they wanted and needed access to practice prior to graded activities. Practice was relevant to the current module and helped prepare the student to complete the graded activities for that module. Generic practice that was not related or pertinent to the graded work should be avoided.

Recommendation 2:   Provide practice as an optional activity. While many students indicated that practice opportunities were important, they also indicated that practice was optional. If a student understands a particular topic then they wanted to be able to eliminate the practice and complete the graded work. Further, students wanted to be able to eliminate specific practice problems and work only on the ones that were deemed necessary for course completion. For example, a practice set of problems could have included 10 practice problems and allowed students to be able to avoid problems, when desired. In this example, a student moved past five of the 10 practice problems and worked on the ones the student felt he/she needed.

Recommendation 3:   Provide immediate feedback to the students during practice. Students were allowed to evaluate if they understood the practice work, which provided immediate feedback, or near immediate feedback. The speedy feedback helped students quickly see if they understood the course content. This helped students to prepare for the graded activities. If the practice was similar to the graded activities, then the student had a good idea how they would do on the graded activities. This was useful should a student start the practice with only a short time

before the graded work was due. One concern was that students received the feedback and did not inquire beyond that feedback, but several students mentioned that there were often times that a tutorial-based practice was also available, which helped them to learn why they missed the practice problem.

Recommendation 4:   Provide practice in an unlimited format. Students wanted to take their time during practice and had the option to go back through practice after they completed it once. For this reason, practice was set up and allowed students unlimited time and the ability to take the practice as many times as they desired. One option was to allow students to retake the practice, but still offered different questions wherein a set number of questions drew from a larger bank of questions. This allowed students to retake the practice as many times as they want, yet also presented students with new or different questions to increase comprehension and retention.

Recommendation 5:   Let the grade be the only negative consequence for the student and provide encouragement to improve in the future. Students perceived grades as a negative consequence for incorrect activities. It was important to keep the online classroom a safe environment for students. This meant that students needed to feel that even after a poor score that the student was welcome to continue trying in the course. Additionally, when a student showed improvement, it was equally important to provide encouragement.

Recommendations for Future Studies

Recommendation 1: It would be interesting to conduct another qualitative study to examine how online Business students in their second or later years are motivated by online course elements.

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As students take more online classes and become more sophisticated in their use, they might view course elements differently in terms of motivation.

Recommendation 2: A longitudinal study of how online Business students are motivated by online course elements as the students progress from their first online course through their last would be interesting in terms of student motivational changes as they take more online classes.

Recommendation 3: Future research is needed to analyze how students perceive discussions as being motivational. Student communication was found to be important, yet the "usefulness" of the discussions had mixed responses. The points assigned to the discussion were perceived as being low, compared to other aspects of the course. These responses could be related to the nature of the course—beginning versus advanced, the way that discussions were designed to be used within the course, or other reasons.

Recommendation 4: Future research is needed to examine student online course motivation when the Keller ARCS Motivational Model is fully applied during course design and development. A future study could compare perceived student motivation in an online course when the ARCS Model is used and all ARCS Model components are applied with an online course that has not applied that model.

Recommendation 5: Online Business students are most motivated through communication, so a study of the various communication course elements would be of value. It would be interesting to know the ways in which students perceive a particular course element to be more motivational than another course element and the context in which they occur within the course.

Recommendation 6: A study of the various uses of technology, such as podcasts, vodcasts, wikis, blogs, etc., are used effectively in online Business classes could highlight ways in which technology can be used to increase student motivation.

Recommendation 7: A design-based research approach to incorporating Keller ARCS into a suite of courses offered for first-year Business students, for example, through two stages of course development and evaluation, could enable the evolution and refinement of the model and provide insight to the model's incorporation.

Recommendation 8: A longitudinal study of how online Business students are motivated by course elements in the new LMS at the research location would be interesting. Such a study could be used knowledge on Business student online course motivation and highlight the use of course elements important to student motivation in the new LMS.

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Appendix A - **Letter Requesting Permission to use the Web Survey Instrument and the Semi-structured Protocol**

August 19th, 2010

Dear Kyong-Jee Kim—

My name is Roy Johnson, and I am a Ph.D. student at Kansas State University (KSU) preparing my doctorate proposal. I found your dissertation---Adult Learners' Motivation in Self-Directed E-learning. I value your work.

I am requesting written permission from you to use parts of the web survey instrument and the semi-structured protocol from your dissertation on my own dissertation. I would need to make changes the instrument to make it useful to my own population, however. Should you agree, I would credit you for your work in the references section. If you are available for an e-mail or phone conversation at any time, then I would appreciate that, as well.

Thank you for your work and your time. I look forward to your response.

Appendix B - **Response to Letter Requesting to use the Web Survey**

Instrument and the Semi-structured Protocol

August 22, 2010

Dear Roy,

 You may use my survey as you requested. Best wishes with your dissertation.

 KJ Kim

Appendix C - **Interview Protocol -**

Online Learning Questionnaire

Time of Interview:

Date:

Interviewee Code:

Major:

Introduction

Thank you for coming to this interview session. You are here today to participate in an interview for a study of online learning. The purpose of this interview is for me to learn your experience in taking online courses.

You will be anonymous and any remarks that you make during the interview will remain confidential. The interview will take approximately one hour. Please take a moment to read the study information sheet.

Key Questions

Have you taken any online courses before? If yes, how many? What courses? (Later on in the interview, I may want to branch out on these other online courses. This could highlight differences in how the courses are perceived.)

How would you describe your computer skill level?

Why did you to take the online course?

Was the topic of the course of interest to you?

Why did you choose take this course online over classroom instruction?

How does your class work? (Describe the activities and the online course elements.)

Can you provide some examples of what makes this course interesting?

Can you provide some examples of what makes this course uninteresting?

How much time do you spend in an average week on activities related to this class?

What course elements were of most interest to you?

What course elements were of least interest to you?

Thinking about all course elements, which ones do you perceive as most motivational?

How do you feel when you are using the course element(s)?

What makes you feel that way?

How is the course element motivational to you?

How is the course element used in the course?

Thinking about all course elements, which ones do you perceive as least motivational?

How do you feel when you are using the course element(s)?

What makes you feel that way?

How is the course element non-motivational to you?

How is the course element used in the course?

How did the course elements gain and maintain your attention?

How were the course elements relevant to you?

How were the used course elements to build or retract your level of confidence?

How were course elements used to satisfy you in the course?

Did your motivation level change during this course? If so, how did it change?

What elements of the learning management system were helpful to you in this course?

What technologies were used in this course to motivate you? (video, podcasts, etc.) Can

you provide some examples? In what ways was each motivational for you?

What technologies or elements of the learning management system motivated you?

(Wimba, live chat)

Would you prefer to take this course in the classroom over the Internet?

Would you like to take another online course in the future? Why / Why not?

Which online Business instructors do you find most interesting? Why?

Which online Business courses did you find most motivational? Why?

Which online Business courses used technology in the most motivational ways? Why

Concluding Remarks

Thanks for your time for this interview. I want to remind you again that your responses

will remain confidential. May I have your contact information in order to contact you again for

follow-up questions and to check to see if I understand your responses correctly?

Appendix D - **Participation Letter of Consent**

PROJECT TITLE: Community College First-Year Business Student

Online Course Motivation

This study is being conducted as part of a dissertation research study at Kansas State University (KSU). The purpose of this case study is to explore motivation for first-year Business students enrolled in online learning environments at a Midwest institution. The Approval Date of the Project is November 1, 2010, and the Expiration Date of the Project is May 30, 2011. You will receive a copy of the participant letter of consent.

You are being invited to be a participant in this study because you fit the profile defined in the research study, which is that of a first-year Business student in an online course. Participation is not a requirement of your course. If you agree to voluntarily participate in this research, your participation will involve a one-half hour to one-hour telephone or in-person interview at a convenient location. The interviews will be audio-recorded and field notes will be taken during the interview process to facilitate analysis of the data. A further follow-up interview may be required in order to confirm or clarify the information for accuracy. You will have the opportunity to review the interview transcripts for purposes of clarifying the accuracy of the information provided.

There are no known risks or discomforts associated with participation in this study. As a participant, you will benefit by gaining insights into your own motivation as a student. You will also be given the opportunity to review the final study to learn more about online student motivation. The results of this research will be useful to educators and online course designers in higher education.

The identity of participants involved in this study will not be revealed in the final research report. Nothing you say will be shared with your instructor or with anyone else at the institution. One notable concern is that because of the small number of participants, there may be some risk that you could by identified as a participant of this study. If you agree to participate, you may withdraw at any time without consequence or explanation, and without harming your relationship with the researchers or your instructor. If you choose to withdraw, you will be given the option of having the information you provided to that point in time excluded from the analysis. The information collected in this research project will be secured by the researcher. Audio-recordings will be erased upon verification of transcripts. Detailed transcripts will be destroyed after successful defense of the dissertation. Results of the study may be included in Roy Johnson's doctoral dissertation and in part or whole, may also be submitted to professional journals for publication.

Should you have any questions please contact the Principle Investigator, Dr. Rosemary Talab, at 226 Bluemont Hall, Kansas State University, Manhattan, Kansas 66506 or by email at talab@ksu.edu or by phone 785-532-5716. Question may also be directed to Rick Scheidt, IRB Chair at 203 Fairchild Hall, Kansas State University, Manhattan, KS 66506 or by phone 785-532-3224 or Jerry Jaax, Associate Vice Provost for Research Compliance and University Veterinarian, 203 Fairchild Hall, Kansas State University, Manhattan, KS 66506 or by phone 785-532-3224.

Terms of participation: I understand this project is research, and that my participation is completely voluntary. I also understand that if I decide to participate in this study, I may withdraw my consent at any time, and stop participating at any time without explanation, penalty, or loss of benefits, or academic standing to which I may otherwise be entitled.

I verify that my signature below indicates that I have read and understand this consent form, and willingly agree to participate in this study under the terms described, and that my signature acknowledges that I have received a signed and dated copy of this consent form.

_____ I agree to be audiotaped during my interview

Participant Name: _____

Participant Signature: _____ Date: _____

Witness to Signature: (project staff) _____ Date: _____

Appendix E - **Faculty Online Learning Questionnaire**

Time of Interview:

Date:

Interviewee Code:

Introduction

Thank you for coming to this interview session. You are here today to participate in an interview for a study of Business online teaching. The purpose of this interview is for me to learn your experience in creating online courses.

You will be anonymous and any remarks that you make during the interview will remain confidential. The interview will take approximately one hour. Please take a moment to read the study information sheet.

Key Questions

Course Name and Number

How many years have you taught online courses?

How many online courses do you teach each semester?

Do you teach any face-to-face courses in a semester?

Why do you teach online courses?

Name some ways in which you motivate your students in online courses?

How do you structure your online course elements hold students' attention?

> Variability: Do you vary online course elements? If so, please provide some examples.

> Humor: How do you use humor in the online course elements?

Concreteness: Do you present real world examples or do assignments that link the class to real events, situations or conditions in the course elements?

Cognitive Conflict: Do you allow students to "discover" the topic through the course elements?

Inquiry: How do you use the course elements for questioning purposes? Do you develop assignments that encourage inquiry?

Participation: What course elements help to maintain student interest and active involvement?

How do you structure online course elements as being relevant to students?

Experience: Do you design course elements to allow students to make use of prior knowledge? If yes, how?

Present Worth: Do you help students perceive the new material as something that relates to their present-day life and may offer a change of their current situation for a better one? If yes, how?

Future: Do you help students perceive the new material as something that may change their future situation? If yes, how?

Need Matching: Do you perceive the course elements to help motivate students' personal need from the course? If yes, how?

Modeling: Are the course elements a good "model" of successful course activities? If yes, how?

Choice: Do you perceive the course elements to allow student for choice? If yes, how?

How do you structure online course elements to increase learner confidence?

Learning Requirements: Does the course syllabus, assignments and other

elements clearly indicate student learning objectives and outcomes? If yes, how?

Difficulty: Are the course elements organized based on difficulty so that a

scaffolded approach is used, taking students from the easiest topic to the most

difficult? If yes, how?

Expectations: Do the course elements and assignment descriptions help students

determine the amount of time and effort required to be successful in the course?

If yes, how?

Attribution: Do you allow or encourage student sharing of work and achievements

in the course? If yes, how?

Self-Confidence: Do you allow opportunities for students to use and learn the

learning management system and course elements before requiring students to

applying their knowledge to "graded" activities? If yes, how?

How do you structure online course elements to increase learner satisfaction?

Natural Consequences: Do you encourage students to apply their knowledge of

the material in various settings? If yes, how?

Unexpected Rewards: Do the course elements and assignments offer any type of

unexpected rewards for success? If yes, what are they and how do they work?

Positive Outcomes: Does your course and/or the course elements offer any type of

positive feedback? If yes, how?

Avoiding Negative Influences: Do the course elements offer any type of negative

consequences for failure of success? If yes, what is it and how does it work?

Scheduling Reinforcements: Do the course elements allow students additional

time to practice new material before they are tested on it? If yes, how?

Is there anything else that you have done in a course that has motivated students? If yes,

what was it and how did it appear to motivate students?

Is there anything that you have done in a course that has not motivated students? If yes,

what was it and how did it appear to demotivate students?

Does student motivation level change during your course? If so, how does it change?

Have you ever taken any workshops on online course design?

Have you learned of any motivational models in online course design? If so, do

you them in course construction? How?

What technologies did you use in this course to motivate students? (video, podcasts, etc.)

Please provide some examples?

Which learning management system elements did you use to motivate students?

(Wimba, live chat, whiteboard, group e-mail, Second Life region, blogs, wikis, etc.)

Concluding Remarks

Thanks for your time for this interview. I want to remind you again that your responses

will remain confidential. May I have your contact information in order to contact you again for

follow-up questions and to check to see if I understand your responses correctly?

Appendix F - **Kansas State University**

Institutional Review Board Approval

Kansas State University

University Research Compliance Office

Certifies the individual named below has completed the
IRB Module 1 - History of Research Abuse of Human Subjects -
training module and quiz.

Name: Roy Johnson
Department: Curriculum & Instruction
Telephone: 620-664-5899
E-Mail: johnsonr@hutchcc.edu
Confirmation #: 52650313
Date: October 3rd, 2010

Appendix G - **Course Element "Discussion" and units**

Course Elements & Units	Frequency
Discussion	**146**
Required replies	22
Students to student conversation	20
opinion based	16
understanding developed from other students	11
Required initial postings	10
Safe environment for students	6
must post before see other student posts	6
Required participation	5
Student personalize conversation	4
Required minimum words for postings	4
Multiple topics	4
Beyond requirements	4
different due dates for different activities during the week	3
Supportive	2
Instructor - involved in discussion	2
understand textbook reading	2
extra credit--optional	2
Understand content	2
Compare to peers	2
Required length minimum	2
Repetitive course element each week	2
Work ahead	1
Classroom environment	1
difficulty of the work	1
explain errors in detail	1
replies from students	1
Instructor - point-of-view	1
Students post introduction about themselves	1
Interesting	1
not required each week	1
General comments from Instructor	1
everyone in the class	1
detailed discussion posts required	1
help I have a question area	1
1 student asking student for help communication	1
no participation	1

Appendix H - **Themes and Units**

Themes / Units	Frequency
Course Communication	**116**
Students to student conversation	21
opinion based	19
Appears caring	14
Instructor - quick to respond to student	9
Safe environment for students	7
Instructor - personal information	6
Instructor - point-of-view	6
Multiple topics	5
Student personalize conversation	4
1 student asking student for help communication	4
Beyond requirements	4
everyone in the class	3
Instructor - involved in discussion	3
Students to Instructor conversation	2
Classroom environment	2
Instructor - visible to students	1
help I have a question area	1
Students post introduction about themselves	1
detailed discussion posts required	1
Interesting	1
respond to the chapter content	1
Inquiry	1
Course Requirements	**83**
Required replies	22
Required initial postings	10
time limit	8
Required length minimum	7
must post before see other student posts	6
Required participation	5
multiple opportunities to retake	5
Required minimum words for postings	4
difficulty of the work	4
Open book	3
no time limit	2
single opportunity to take quiz requires student to be more prepared	1
no participation	1
Required work involve multiple course elements	1

not required each week	1
replies from students	1
number of question vary	1
outlines "rules" for the course	1
Grades	**71**
Up-to-date	31
Track progress	13
Compare to peers	12
different due dates for different activities during the week	4
Automatic updated - Quiz	3
the value of the assignment (points) makes a difference	3
Maintain grade	2
records highest score achieved	1
assignment points must seem worth it	1
display percentage of assignment	1
Course Organization	**60**
Setup	21
Repetitive course element each week	12
easy to find	8
layout	6
easy to use	5
Specific technologies provided	4
Located in multiple locations	3
repetitive course elements from course to course	1
Asynchronous Learning Options	**50**
General comments from Instructor	14
understanding developed from other students	11
explain errors in detail	11
understand textbook reading	5
Supportive	5
Understand content	4
Course Element Availability	**48**
Grade Access	10
Preview work to complete	8
Work ahead	6
View material again	5
extra credit--optional	3
Hide past due Modules	3
Instructor	2
extra credit	2
more information than book	2

issues with course elements are fixed	1
Access	1
useful for more personal type of question/answer	1
allow students to break up time required per setting	1
additional resources available	1
course elements are only "tools" to allow students to do the work	1
privacy and solitude	1
Track Course Progress	**46**
work graded	11
Weekly Schedule	7
Semester view	6
past due work	5
Future work	3
semester to complete work	2
Flexible	2
show on Module folder	2
Page	2
introduction to the content	1
Instructor - update college events	1
Due date	1
Instructor - update personal life	1
schedule (detailed work to complete located in one place)	1
instructor should explain how to use the course element	1
Grand Total	**474**